Social representation of competition, fraud and academic cheating of French and Hungarian citizens

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Abstract

For this thesis, the main goal was the comparison between Hungarian and French citizens’ social representation of competition, fraud and academic cheating. In the theoretical part relevant researches were summarized concerning social representations, competition and academic cheating. On the basis of the theoretical framework of social representations (Moscovici, 1961/2008; 1984/2002) the results were analyzed in three levels i.e. intrapersonal, interpersonal and situational, and cultural levels, based on previous works carried out by Doise (1984) and Kirchler (2007).

The idea of the thesis derives from a preliminary study in which Hungarian businessmen (N=202) competition-related in-depth interviews were content-analyzed from the perspective of the morality dimension. The results showed that approximately 80% of the respondents mentioned spontaneously at least one form of dishonesty in the context of competition. They mentioned more general (54%), as well as specified forms of dishonesty in business competition, as corruption and bribery (37%) and tax evasion (8%). Furthermore, they also gave different reasons for immoral competition, such as the legacy of the socialist system (5%), the aftereffects of the change of regime in 1989 (12.4%), the destructive effects of monopolies (12.4), and the unregulated nature of competition (22.3%). However, not only the negative side of moral dimension appeared in these interviews: 36.6% of the respondents mentioned honesty as a personal principle, 10% of them evaluated the business sector in which she/he works as honest, and almost 7% perceived improvement concerning honesty regarding business competition in the near past. Finally, more than 30% of these businessmen talked about connections in negative terms, generally reflecting on their non-meritocracy-based and anti-competitive side. Whereas, only 14.4% of the interviewees mentioned connections’ in a neutral manner, while 13.4% talked about its positive aspects. These results, which can be interpreted in the light of the historical, economical and sociological context of Hungary, show that the dimension of morality plays a central role in Hungarian businessmen’s way of thinking.

Since these results showed that the majority of the interviewees spontaneously talked about the presence of different forms of dishonesty in the Hungarian competitive business life, the focus turned towards the next generation of businessmen and their social representation on competition and fraud. The question was then: will tomorrow’s businessmen, students who are studying economics and business today also perceive competition as being infected by immorality and dishonesty? Due to the inherent characteristics of social representations, which are constructed, elaborated and shared by social groups, the framework of social representation provided an appropriate theoretical and methodological framework that allows analyzing students’ concepts regarding competition and fraud. Consequently, comparisons between different groups’ social representations on competition or fraud should provide a deeper understanding of both groups’ attributes. Moreover, comparisons between groups from different cultures in these fields should reflect potential differences based on their cultural
characteristics. Furthermore, comparative research can emphasize such dimensions that would be less prevalent or invisible for the researcher who is carrying out a research with participants from only one culture. It became possible to carry out a French-Hungarian comparative research in which social representations of competition and fraud for both Hungarian and French students could be compared. Therefore, beyond the inspiration of the initial interview study, this global project aimed at pursuing the exploration of possible cultural differences regarding competition and fraud. From the theoretical part of the thesis, some elements helped to decide (1) what aspects of social representations should be in the focus of the present research, (2) how to conceptualized competition, along with the consequences of this conceptualization, (3) and to select academic cheating as an appropriate form of fraud for this study.

Concerning social representations, we were mainly interested in seeing how spontaneous self-report-based social representations regarding competition and fraud, which were measured at the group level, would also appear in the behavior of French and Hungarian students. In order to carry out such examination, associative studies were first used in two studies.

In the first associative study, the main interest focused on possible relationships between the social representations of competition and fraud in each sample. Furthermore, it was important to find salient aspects of the social representation of fraud that are, on the one hand, close to the everyday practices of the students, and on the other hand, that makes possible the examination of fraud at the behavioral level. This was the main reason why our interest turned towards academic cheating. In this first study, the goal was the exploration of Hungarian (N=107) and French (N=104) students’ social representation of competition and dishonesty related issues, as fraud and corruption. The results suggest that immoral aspects of competition were not clearly revealed both in the case of French and Hungarian students. However, regarding the content of Hungarians’ social representation of competition, a result-orientation was more salient than among their French peers. Furthermore, the representation of competition of the French students was more self-development and process-oriented. Regarding the coherence, Hungarians’ social representations of competition and fraud were visibly less coherent, than their French counterparts. During the analysis of fraud’s social representation, academic cheating emerged as a domain in which these samples could later be examined and compared at the behavioral level. In the case of the Hungarians, academic cheating was the second most frequently mentioned term regarding fraud, while among French students it was almost missing from their social representation of fraud. Therefore, the focus in the following turned toward the examination of competition and fraud, in which academic cheating had a central role.

In the second associative study, the aim was to confirm our first results. Our goal was to clarify cultural differences regarding academic cheating. With Vergès (1992, 1994) associative method and Flament and Rouquette’s (2003) complementary indexes, this study had three main goals: (1) to compare the presence of dishonesty-related issues in the social representation of competition of
Hungarian and French students; (2) to reveal main cultural differences regarding the content and the coherence of the examined representations; (3) to identify a salient domain in which behavior of the students can be measured in further studies regarding immoral competition. It was constructed with the terms revealed by the first associative study and it had two main goals: (1) the confirmation of the results of the first one, and (2) the exploration of the structure of the social representation of fraud and competition among French (N=115) and Hungarian (127) students from the same faculties as in the first study. In this confirmatory study, students had to choose the five most characteristic terms from a list of 20 words for competition and fraud, respectively. The two lists of words contained terms and expressions that were mentioned in the former study, only by Hungarians, only by French, and by both groups. The results confirmed the first study: Hungarians chose more frequently terms which are related to the result of the competition, and French students chose more frequently words which reflect on the self-achievement and the process of competition. Furthermore, academic cheating was chosen as the most characteristic element of fraud especially for Hungarian participants. Regarding the second goal of this study, it showed that Hungarians’ social representation of competition and fraud were more fragmented than their French peers’. This result, on the one hand confirms the previous data; on the other hand, it can be interpreted as the aftereffect of the change of regime.

A third study, using a questionnaire with open-ended questions and closed questions, focused on a quantitative analysis regarding academic dishonesty. In this study, cultural differences between Hungarian (N=98) and French (N=131) students regarding attitudes toward cheating, self-reported cheating rate, norms toward cheating, emotional consequences of cheating and expected punishments, are measured. According to the results, Hungarians perceive academic cheating as being more acceptable than it is for our French students; they report higher cheating rate than their French peers; they perceive more students who cheat during an average exam than French youngsters; finally, Hungarians have less negative feelings after cheating, and they expect less severe punishments than their French counterparts. Furthermore, none among the measured variables could predict French students self-reported cheating behavior. However, Hungarians’ attitudes toward cheating predicted their self-reported frequency of cheating.

In the fourth study, the goal was the creation of an experiment in which it became possible to observe, at a behavioral level, the effects of the previously measured social representations of competition and fraud. However, in order to create such circumstances, it was also necessary to take into account the main personality, situational and cultural variables which can have an impact on the behavior of Hungarian and French participants. In this study, focused on the cheating behavior of Hungarian (N=48) and French (N=66) students, open- and closed-competitive conditions were created for three-person groups. In the closed-competition condition only one student could win the reward (scarce resource), while in the open-competition condition the three participants could win it if they achieved a defined threshold (unlimited resource). Furthermore, on the basis of the attitudes towards
competition, self-developmental competitive attitudes were measured. Finally, previous acquaintanceship between students was also taken into consideration. Group and individual levels of analysis were carried out, in which individual and collaborative forms of cheating were recorded as dependent variables. This study had four objectives: (1) proving that Hungarian students cheat more than their French peers; (2) demonstrating that in closed-competition cheating would be more often done in an individual manner, while in open-competition they would cheat more in a collaborative way; (3) confirming that students who cheat have lower scores on self-developmental competitive attitude scale than students who did not cheat; Finally, (4) showing a positive relationship between the seriousness of collaborative cheating and the number of group members who previously knew each other.

The results did not confirm that Hungarians cheat more than French students. Moreover, taking into account both individual and collaborative forms of cheating, the number of groups in which French students cheated tended to be higher than the number of Hungarian groups. Regarding the type of competition in the case of full sample at the group level analysis there was no difference between open- and closed-competition conditions concerning individual and collaborative forms of cheating. However, regarding the full sample, at the individual level of analysis, more students cheated in open-competition condition than in closed-competition condition. This result derives from the behavior of Hungarian students, because in the case of French students the occurrence of cheating in the two competitive conditions was not significantly different. If we take into account only the Hungarian students, more students cheated in open-competition than in closed-competition condition. This difference appears because of the relatively high occurrence of collaborative cheating in open-competitive condition regarding Hungarians, in comparison with closed-competition. However, among Hungarians, there was no significant difference between the occurrences of individual cheating in open- and closed-competition conditions. Furthermore, in the case of the full sample, there was no difference between cheaters and non-cheaters concerning self-developmental attitudes toward competition. However, taking into consideration only collaborative forms of cheating (i.e. excluding individual forms of cheating), cheaters had lower scores on the self-developmental attitude scale than non-cheaters. Concerning cultural differences and attitudes toward self-developmental competition in the Hungarian sample students who committed collaborative cheating had lower scores in the self-developmental competitive attitudes than non-cheaters. Whereas, concerning French students there was no such difference between cheaters and non-cheaters. Finally, a positive relationship was measured between the number of persons who knew each other and the seriousness of collaborative cheating. Regarding cultural differences, this relationship was present in the French sample and, it was insignificant among Hungarians. Taking into account the measured variables in the whole sample, previous relationship had the strongest impact on the occurrence of cheating, but the effect of nationality (French) and competitive condition (open) also had a significant impact. In the case of the
French sample, the only predictor was previous acquaintanceship between students, whereas in the Hungarian group only the open-competition condition had a significant impact on the occurrence of cheating.

In the conclusion, the results of the experiment and the previous studies are interpreted from the perspective of social representations, competition and academic cheating. Several explanations are presented showing why only few cultural differences regarding cheating appeared at the behavioral level. Beyond the limitations and further improvements of the experiment, we favor the cultural dishonesty bias hypothesis. This hypothesis claims that in such countries in which, other more seriously evaluated forms of dishonesty are more extensively present, self-reports concerning academic dishonesty are more reliable sources of information than in countries in which immorality is less present and pervaded in the general climate. Therefore, more reliable data about dishonesty from countries such as France can be obtained by behavioral data instead of by self-reports, whereas in Eastern-European countries (i.e. Hungary) self-report-based information is a more reliable source of information in the case of such petty crimes as academic cheating.
Introduction

The aim of this research project was the comparison between French and Hungarian citizens’ social representation of competition and fraud. The research topic was chosen as a consequence of a common research with Marta Fülöp in which Hungarian businessmen’ interviews on competition were analyzed. The results of this study showed that the majority of the interviewees talked about the presence of different forms of dishonesty in the Hungarian competitive business life. Due to the numerous forms of immorality that appeared in the interviews the question arose: do tomorrow’s businessmen who are economics and business students now see competition as infected by immorality and dishonesty as businessmen do? Therefore my interest turned to the next generation of businessmen and their social representation on competition and fraud. The framework of social representation could provide an appropriately wide theoretical and methodological framework that allowed analyzing economics students’ concepts and behavior regarding competition and fraud in different levels. Due to the inherent characteristics of social representations, they are constructed, elaborated and shared by social groups and they are referring to a given social object as competition or fraud. Consequently, comparison between different groups’ social representation on competition or fraud could provide deeper understanding on both groups’ attributes. Moreover, comparison between groups from different cultures in these fields can reflect on their cultural characteristics. Furthermore, what is more important comparative research can emphasize such dimensions that would be less prevalent or invisible for the researcher who is carrying out a research with participants from only one culture. Due to the co-tutelle scholarship received from the Conseil Régional of Champagne-Ardenne it was possible to carry out a French-Hungarian comparative research in which I could compare social representation of Hungarian and French students’ social representation of competition and fraud. Due to dissimilar historical, economic and cultural backgrounds, differences were expected regarding the research topics, such as the most important previous work carried out by Roland-Lévy, Fülöp and Berkics’s (2009) who found important differences concerning French and Hungarian teenagers’ perception of economic competition. Therefore, this research project, beyond the inspiration of the initial interview study, aimed to continue the exploration of possible cultural differences regarding competition. However, in this case not only competition, but also its immoral aspects, such as fraud, were also to be explored.
As it will be discussed below in details, there were not many previous researches in psychology that aimed at exploring competition’s immoral aspects that can be related to different kinds of frauds. Furthermore, according to the knowledge of the author there was no previous psychological research that aimed at exploring the relationship between competition and fraud in a cross-cultural or comparative framework. Therefore, there are several issues and subtopics that can be explored regarding both the field of competition and fraud. However, since social representations provide quite broad possibilities of research this important concept became a major aspect of this project. Therefore, in the following, I would like to provide some previous ideas regarding (1) what aspects of social representations were in the focus of the present research, (2) how competition was conceptualized, along with the consequences of this conceptualization, (3) and the specific form of fraud that came into the interest of the research project.

Concerning social representations, we were mainly interested in how self-report-based social representations regarding competition and fraud which were measured at the group level appear in the behavior of French and Hungarian students. In order to carry out such examination, associative studies were used in order to feature the main characteristics of Hungarian and French students’ social representation of competition and fraud. In the first associative study the main interest turned to possible relationships between the social representations of competition and fraud in each sample. Furthermore, it was important to find such salient aspects of the social representation of fraud that is, on one hand close to the everyday practices of the students, and on the other hand that makes possible the examination of fraud at the behavioral level. This was the main reason which turned our interest towards academic cheating. In the second associative study the aim was to confirm the results of the previous research. In the subsequent study our goal was to clarify cultural differences regarding academic cheating which was the chosen topic related to fraud. While, in the final study, the goal was the creation of an experiment in which it was possible to observe at a behavioral level the previously measured social representations of competition and fraud. However, in order to create such circumstances it was necessary to take into account the main personality, situational and cultural variables that can have impact on the behavior of Hungarian and French participants.

Some of the most important variables that can have an impact on cheating behavior were under experimental control during the experiment. However, most of them were only presented in the theoretical part of competition and academic cheating. In these theoretical parts our goal was to follow a four level of analysis in which intra-individual, interpersonal
and situational, group, and finally cultural and ideological levels of variables were separately discussed. However, due to the comparative nature of the global research project the goal was the detailed exploration of cultural variables that can be taken into account. From this perspective, in the field of competition, Fülöp Márta’s previous cross-cultural researches helped a lot. Regarding cross-cultural researches in the field of academic cheating we carried out a meta-analysis in order to explain differences regarding self-reported cheating rates in different cultures.

In the following theoretical part, firstly the theory of social representations will be presented. Later, theories concerning competition and academic cheating will be introduced. The empirical part starts with a summary regarding the common work with Márta Fülöp on Hungarian businessmen’s interviews. After this empirical part the two comparative associative studies will be presented. Then, a quantitative study will be detailed regarding academic dishonesty among French and Hungarian students, and finally the results of our experiment will be presented.
Theory of social representations

In this section, we would like to start by introducing the main ancestors of social representations, namely Durkheim and Lévy-Bruhl. I will not present their work in a detailed way; however, their most influential ideas and principles that had have impact on the creation of Moscovici’s (1961/2008; 1984/2002) theory of social representation and his colleagues who developed this field, will be taken into account. First, Émile Durkheim’s theory (1898) about the distinction between individual and collective representations will be described, followed by Lucien Lévy-Bruhl’s work on the thinking of native tribes.

Émile Durkheim

Émile Durkheim wrote an article in 1898 about the distinction between individual and collective representations. He supposed that, since individual representations cannot be explained at a physiological level, based on brain activity, this level of explanation is not appropriate in order to describe higher-ordered phenomena, such as religions or myths, even if they play a certain role in their construction. He rejected the idea that social facts can be reduced to an individual level, or that they might be an epiphenomenal manifestation of the above mentioned individual-related brain or mental activity. Rather, he supposed that external social reality, in the form of social facts, - created by the given group or society - has a strong impact on consciousness. That is why collective representations have to be discovered, and this observation cannot happen with “reductionist” physiological or introspective (psychological) methods. In fact, they have to be explained in an independent way from both psychological and physiological levels; moreover, as Durkheim (1898) supposed – collective representations do not derive from isolated individuals, but from interactions between them. Furthermore, they take place, in a certain way, outside of the individual consciousness. Even if individuals contribute to the creation of the collective representations, the collective representation is created by the interplay between the members of the given group. Individuals, in a society, unify and transform their ideas, and the final product of this process becomes a different thing than the sum of the originally individual ideas. Durkheim (1898) wanted to distinguish explicitly individual psychology from sociology. For him, the old
introspectionism observed the mental phenomena without explaining them; psychophysiology explained them, but they were not open to the above-mentioned higher-ordered phenomena. Instead of the use of these points of views, he aimed at funding a naturalist sociology which could observe with scientific rigor the collective representations, as social facts with their own rules and their own rationality.

Durkheim, one of the founding fathers of sociology, writes mainly about the role of sociology in scientific research; however, he also presented some notes about the role of social psychology: “As to the laws of collective thought, they are totally unknown. Social psychology, whose task it was to define them, is nothing but a word describing all kinds of varied, vague generalizations with no definite object as focus. What is required is to find out, by comparing myths, legends, popular traditions, and languages, how social representations attract and exclude each other, merge together or separate, etc.” (Moscovici cites Durkheim, 1984, p. 13).

This was one of the ideas that gave the direction to Serge Moscovici to revive the theory of social representations half a century later. One of the main distinctions that Moscovici poses between collective and social representations is that, while collective representations refer to whole societies, social representations concern mainly smaller unities of the society such as social groups. Hence, it is possible to conceive social representations as a mediate level between individual and collective representations (Moscovici, 1984/2002; László, 2005). The other difference between collective representations and social representations is that the latter are less static than collective representations. With this distinction, Moscovici intended to reflect on the rapidly changing society in which social representations do not always have time to resettle; hence, they are changing more dynamically, than collective representations (Moscovici, 1984/2002). In sum, even if collective representations are explanatory tools which reflect on general sets of ideas and beliefs, the aim of the research in the field of social representations is to observe their specific inner dynamics, structure, the communication which support them (Moscovici, 1984/2002).

Lucien Lévy-Bruhl

Even if Durkheim had the main impact on Moscovici, in the creation of the theory of social representations, others, and among them, mainly Lucien Lévy-Bruhl, with his work on the thinking of native tribes, influenced the birth of the theory of social representation, in the
middle of the twentieth century. On the basis of Lévy-Bruhl’s (1910) argument, primitive thought is not an earlier phase of the western thinking, but it is a form of thinking which is now considered equivalent. Furthermore, he supposes that every human group or society, independently from their archaic or modern nature, possess its own logical way of thinking. Hence, for Lévy-Bruhl it is useless to create a rank-order, or classification of communities on the basis of their level of modernity; however the most important, from his anthropologist point of view, is to understand the inner logic of the given culture (Lévy-Bruhl, 1910). The main difference between the so-called “prelogical” and western thinking is the primacy of law of participation in primitive cultures contrasting to the principle of contradiction avoidance which characterizes the civilized cultures. This difference will now be described.

The principle of participation reflects on invisible, mystic connection between somebody and an object from the material world. This relationship can be characterized by a mutual inclusion: the individual is part of his environment and the given object is part of the person. Participation means that there are no well-defined borders between material and spiritual, natural and supernatural, or self and non-self (Lévy-Bruhl, 1910). Both principles dominate, in a given culture, the understanding of everyday practices can, in this way, only be carried out if the researcher does not separate single acts from its context, but he/she observes it as an embedded part of a coherent system or network of concepts and habits.

Lévy-Bruhl (1910) claims that the civilized and primitive tribes reason in similar ways, but they have different “theories” to explain the reality (Moscovici, 1998a/2002). The absence of contradiction principle is a general rule which was set by the members of a given community. From this perspective, Lévy-Bruhl emphasizes the crucial importance of social factors in the construction of individual mentality. In this sense, Guimelli states that Lévy-Bruhl “suggests today as well that the cognitive functioning of the individual, in a general way conforms to the rules and norms of the group which he belongs to” (Guimelli, 1999, p. 36). When Moscovici (1998a/2002) writes about the social consciousness and its history, he simmers Lévy-Bruhl’s theory into three points: (1) Social representations are independent from the experience, (2) “insensitivity” of contradictions, (3) and the role of language regarding social representations. The same year, Moscovici wrote an article about the history and actuality of social representations (1998b/2002) in which he introduces Lévy-Bruhl as the founding father of the collective representations in social psychology. Later, he demonstrated three other main lessons that the theory of social representation learned from Lévy-Bruhl: (4) holistic nature of social representations, (5) emphasis on emotion- and behavior-related aspects of social representations, (6) and, concerning the comparison between social
representations of different communities, there is no superior or inferior ones. In the following part, using the above-mentioned points, we will analyze Lévy-Bruhl’s impact on Moscovici’s concept of representation.

1. Collective representations are independent from the experience; they derive from authority or tradition, and thus, they cannot be easily the objects of falsification. In several cases, group members do not have direct contact with the experience, except through the filter of the commonly possessed categories and feelings. Moscovici (1998a/2002) compares this distance from the experiences with Thomas Kuhn’s (1962/2000) incommensurable paradigms. In a paradigm, there are unquestionable axioms, which are useless to experience, because they are the pillars of a given theory. Therefore, as in the case of Kuhn’s (1962/2000) paradigms, the commonly shared collective representations that derive from traditions can overwrite tangible experiences.

   Concepts, notions and principles that neglect tangible experiences appear in more details in Moscovici’s presentation of the theory of social representations (Moscovici, 1961/2008, 1984/2002). Furthermore, the problematic of practices and social representations, as we will see in the latest part of this chapter, extensively appears in the school of Aix-en-Provence (for example Abric, 1994b; Guimelli, 1999).

2. The second point concerns the sensitivity to the contradictions: everyone is sensible to contradictions, except the case in which the contradiction takes place within the collectively possessed representations. For Moscovici (1998a/2002), it is mainly true for communities in which the principle of participation is strong; nevertheless, it is also present in the contradiction avoiding societies.

   For the insensitivity towards contradictions, within the framework of a social representation, one can look for example, at Jodelet’s work (1989), which reveals a contradiction between practices and the verbally provided reports, considering the contagious nature of mental disorders. In her example, the locals, in Ainay-le-Château’s Family Colonies, who were in daily contact with patients who lived with mental disorders, expressed a certain kind of magical fear of contagion towards mental illness in their practices (they washed their dishes or washed their clothes separately from the other members of family). However, they denied the medical nature of infection (Jodelet, 1989). Because these practices were consensually accepted at group level, this contradiction passed undetected for them.

3. For Lévy-Bruhl, the language is a part of the social representations, or rather, a system which is built on the social representations (Moscovici, 1998a/2002). The function of
language is the continuous and precise reproduction of objects’ and persons’ inner images in the always-changing environmental conditions. Hence, for Lévy-Bruhl, this is the reason why societies have such a rich lexical world. In the process of evolution or changes of the mental images, language has to follow the changes easily and with suitable flexibility.

The influence of Lévy-Bruhl considering the relationship between language and social representations appears as a starting point in Moscovici’s articles (1994/2002) about social representations and pragmatic communication. Moreover, in his very influential chapter on the phenomenon of social representation (Moscovici, 1984/2002) he dedicates several pages to the name giving function of anchoring. In this process we can see the above described flexibility and richness of language which mirrors or reproduce the changes and formations of the social representations. Furthermore, the free association’s method (Vergès, 1992, 1994; Abric, 1994c) uses explicitly the richness of language in order to explore the social representation of a given social object; however, with more recent techniques (Flament, Rouquette, 2003) the richness and the diversity of the evoked words provide information about the structure of the representations. We can see through these examples, that the legacy of Lévy-Bruhl, concerning the significance of the rich and flexible linguistic expressions of collective representations, has a significant afterlife within the theory of social representations.

Representations are holistic, which means that a belief or a category implicates several others. This is one of the reasons why it can be strange to see a specific and separated act in a different culture. Without the understanding of the given act’s embeddedness, the comprehension can easily become impossible. With Moscovici’s (1998b/2002) example, the conviction of “He is a German” supposes several pre-existing notions, such as, he is European, he is not Turkish, etc., which means that the above mentioned piece of information can only be dealt with in relation with other diverse ideas and notions.

In one of Moscovici’s recent article (1963/2002) he criticizes the theories and researches on attitudes and opinions of the fifties’ and sixties’ for being a relatively fragmented field, which provides particular knowledge elements and, in several cases, lacks an integrated theoretical framework. For him, these studies mostly do not aim at providing more widespread theoretical explanations or perspectives. Later, the researchers in the field of social representations, in a similar way as Moscovici, emphasize the crucial importance of a holistic approach.
5. The intellectual, or cognitive classification of beliefs, becomes useless, as Lévy-Bruhl found, since, for example, the representation of primitive tribes’ members is inseparably attached to emotional as well as to motor aspects. Hence, the logic of the representations can be based on intellectual and emotional logics, even if they are based on different principles. Therefore, it is not proper to conceive social representations as purely intellectual constructs, especially since emotional and behavioral components also belong to representations (Moscovici, 1998b/2002).

Concerning the relevance of emotions and practices, beyond cognitive aspects of psychological phenomena, there are researches in the field of social representations. As it will be shown below -social representations, behavior and practices- were and are part of a debate focusing on the best way to deal with practices in the framework of social representations. Furthermore, several studies (Jodelet, 1989; Meier & Kirchler, 1998; Moscovici, 1961/2008; De Rosa, 2001) measure in different ways emotional aspects of social representations. Therefore, beyond cognitive aspects of social representations, both behavioral and emotion-related aspects of social representations were in the focus of different researches following Lévy-Bruhl’s guidelines.

For Moscovici (1998b/2002), following Lévy-Bruhl’s heritage, a representation has to be seen, not just as a copy of reality, but as something which is a living part of society and its reality. The description of the representations has to be carried out in such a way that it can show how they are imbedded in the real life of the group members. It is a noble goal and a real challenge for every researcher in the field of the social representation, however if somebody examines the social representations, it can easily become a wide and general description.

Examination of social representations, as something which is a living part of society and its reality, is one of the most important goals that a researcher can learn from Lévy-Bruhl. For Moscovici, this aspect appears best in Jodelet’s work (1989), which will be presented later in details when the connections between practices and social representations will be discussed.

6. Each representation has its own originality and relevance; none of them can become the criteria of justice and rationality. There is no inferior, irrational, perfect or imperfect representation (Moscovici, 1998b/2002). The distinction between “prelogical” or ‘mystical’ thinking and modern contradiction, avoiding thinking, is useless in the above-mentioned dimension; nevertheless, they are both equally complex and both possess its argument categories and rules. This principle is close to the above mentioned
incommensurability dimension which supposes that the evaluative comparison between two social representations is a very hard, and frequently an impossible task, mainly if the two cultures – and their representations are fundamentally different from each other.

Even if social representations cannot be evaluated scientifically as superior or inferior in comparison to each other concerning their specific rationality or logic, it is possible to describe more representations under the umbrella of broader terms such as the *themata* (Moscovici & Vignaux, 1994; Marková, 2000). The *themata* is a framework of social representations which can be interpreted as a culturally shared primitive preconception, image or pre-categorization (see in details below). Moreover, social representations can also be categorized on the basis of their autonomy (cf. Abric, 1994a). The autonomous social representation possesses a special structure which includes a central core (see below the more detailed description of social representations), whereas a non-autonomous social representation cannot be characterized with a central core. Nevertheless, it is not because of these distinctions among different social representations, that, on the basis of the ‘quality’ of rationality or logic, one social representation could be more “advanced” or more highly developed than others.

**Moscovici’s guiding principles regarding the present research project**

In 1984, Moscovici wrote a chapter about social representations, in which he describes four crucial principles that a social psychologist, working in the field of social representations, has to keep in mind. Concerning this thesis, these words have a particular importance in defining the research topics, and for carrying out the ensuing steps of the research project.

First of all, Moscovici says that social representations have their own specific content which are different in each society, and it is impossible to make a clear distinction between ‘how we think’ and ‘what we think’, it means the process and the content are coupled and it is not the goal to find universal but decontextualized and content-independent processes, but to see how the process and the content create a joint system. According to the author’s interpretation, the message of this principle was to put a real accent on not only processes, but also on the content of the explored social representations. Furthermore, during the research project the author aims to turn his focus of research toward such related topics that on the one hand play an important role in the everyday practices of the examined samples, and on the
other hand researches will be supposed to be driven by subsequent results and not previously established more general theory based assumptions.

The second point concerns the methods, for which Moscovici favors the use of observation and clearly criticizes experimental methods. More precisely, he suggests putting more emphasis on observation, but without completely losing the advantages of the experiments: “And what we require of observation is that it will preserve some qualities of experiment while freeing us from its limitations.” (Moscovici, 1984, p. 67). Hence, in order to see how social phenomena work, we have to grasp it in the most natural context. Furthermore, it is important to create experimental situations which allow that different groups with different social representations could become measurable and comparable. Following this idea in the present study the goal was to prepare and carry out an empirical research project in which such methodological issues are considered.

The third point insists on the fact that, instead of testing hypotheses in the laboratory, it is more important to gather rich data thanks to observation and interviews. The researched social object can be understood only from the careful description of its social representation’s structure, taking into account the context in which it has been constructed. It is as crucial to have rich data as to have a theory behind the explanations. Hence, gathering data in different ways, from different sources about the same object can provide a better quality of the research. Therefore, in this thesis, I tried to use different qualitative and quantitative methods in order to approach the cultural differences between Hungarian and French students. The use of different research methods can shed light on the most important dimensions of social representations that makes possible to carry out a comparison between Hungarian and French students’ practices regarding competition and fraud. The filter of different methods finally gave me a set of phenomena and hypotheses that could have been analyzed more and more precisely. The combination of the first and third principles – following the meaning of the data and the use of a rich data set gave me the possibility to find both relevant and salient aspects of the differences between the social representation of competition and fraud among French and Hungarian citizens.

The fourth point concerns the question of time. Social representations are substantially based on historical constructs; they influence individuals, within a social group, based on experience during their childhood, by the process of socialization. So, in the present research it was decided to also take into account some of the developmental aspects: young people who grew up in the Hungarian society versus young people who grew up in the French society have heard different discussions around the kitchen table, during dinner, have discussed
different topics with their peers, watched different television programs; moreover, they have had an absolutely different historical heritage, composed of dissimilar collective memories. Their experiences are not the same; they do not reconstruct reality in the same way from their childhood, and the result will be that they will construct different social representations of similar social objects. That is why I tried to observe the social representations of tomorrow’s businessmen who have different historical, cultural, and economic backgrounds.

During this work, the main purpose was to respect and follow the above described guidelines of the theory of social representations. In the following part, a small introduction about the theory of social representations is given. But, before providing definitions of what social representations are, some of the differences between everyday representations and specific knowledge will be discussed. Then, some comments about how Moscovici, Doise and their colleagues ventured to bridge the individual and collective level of observation will be presented. Later, the relationship between communication and social representations will be described, concentrating mainly on Moscovici’s initial research on psychoanalysis. After this, we will focus on the structure of social representations, as well as on their different functions, and how they reconstruct reality. In the ensuing longer part, the possible relationships will be demonstrated between social representations, practices and behaviors, by referring to both theoretical and practical considerations; we will provide some examples from this field of research. Before the conclusions, we will follow up previous studies in the field of competition and fraud, studies which were carried out using the theoretical and empirical background of social representations. Finally, we will try to conclude with some of the principles, on the basis of both the theories and results that we covered in this theoretical part on social representations.

**Differences between Everyday Representations and Scientific Knowledge**

Scientists from diverse fields define in altered manners competition, fraud and corruption. These scientific definitions are different from the everyday way of thinking. Hence, it is necessary to distinguish the scientist’s theoretical knowledge from an everyday representation. Whereas scientists and common people observe and experience the same phenomenon, i.e. competition, fraud, corruption, their perception is different according to their stances, purposes and influences. A scientist, by definition, examines in an objective way. The point is to analyze an object, from outside, in a scientific logic driven manner; and
to deal with it as a separated object from other parts of the world, hence, this world is objectified. From the perspective of ordinary people, they treat an object quite differently; in their world, an object does not have its “objective” nature, but it has subjective and humankind meaning. The world of the scientist is an unfamiliar place, but the ordinary people’s world is much more personal; it is a result of a collective construction which is created by commonly shared experiences and permanent social discourse (Moscovici, 1961/2008, 1984/2002).

**Definitions of Social Representation**

After the presentation of some aspects underlying several of the differences between scientific and everyday knowledge, along with the description of some of the main characteristics, some definitions of social representation will now be introduced. Moscovici (1984/2000) defines social representation in the following way: “*Social representations are the set of conceptions and explanations deriving from everyday life which are generated by communication of individuals. In our society they are equivalent to the myths and belief systems of traditional societies, they can be interpreted as the modern form of the common sense.*” (Moscovici, 1984, p. 181) In Moscovici’s thesis based on the study of psychoanalysis, reflecting on both Lévy-Bruhl and Durkheim, he defines social representations as a broad phenomenon which has an overarching effect on individuals. The “fuel” of the social representations derives, nowadays, from the scientific knowledge; the “engine” of the social representations is communication, while the “finish” is the decrease of the unknown. Thus, he compares social representations to contemporary myths.

Jodelet (1991) emphasizes relatively different aspects of social representations than Moscovici did. Her definition is the following: “*It is a sort of knowledge current, a common sense which is characterized by the following characteristics: 1. it is socially elaborated and shared; 2. it has a practical aim concerning organization and control of the environment (physical, social, ideal) and it orients the behaviors and the communication, 3. it contributes to the establishment of a view of the common reality for a given social community (group, class, etc.) or culture.*” (Jodelet, 1991, p. 668). As we can see here, social representations are social in their nature – similarly to Moscovici’s perspective, the individual aspects are less relevant. Concerning functions, she puts more emphasis on its practical nature and the relationship between behavior and representations. Moreover she emphasizes that
representations concern a given group, in which members share a common reality, and in this way a social representation appears as a common denominator.

For Abric, a social representation “...is a product and process of a mental activity of an individual or a group whereby he reconstructs the reality which has a specific meaning for him and with which he confronts.” (Abric, 1987, p. 64). As it can be noted, in the case of Abric, the individual and the mental side of representations get more emphasis than for example in the case of Jodelet (1991). When describing representations, he talks about mental process as well as content. As we will see later, social representations are criticized on the basis of their content-orientation and process-neglect, but Abric took definitive steps towards the observation of the content and structure of representations with the central core theory; furthermore, he detailed different functions of social representations.

For Doise and his colleagues (1999) “Social representations can be considered as organizing principles of symbolic relationships between individuals and groups. A first assumption on which this definition is grounded is that various members of a population under study share common views about a given social issue. Social representations are generated in systems of communication that necessitate common frames of reference for individuals and groups participating in the relationships. An important phase in each study of social representation therefore is the search for a common cognitive organization of the issues at stake in a given system of social relations.” (Doise, Spini, & Clémence, 1999, p. 2.). Doise refines Moscovici’s theory, by supposing that, in a given field, or in symbolic reality, there are systematic variations, which allow to classify the different positions of individuals. On the basis of organizing principles, these systematic variations of individual and sub-groups positioning can be observed. As we will see later, Doise’s point of view partly derives from Bourdieu’s sociology, in which he intensively studied the relationship and the distinction between different communities’ ways of living. For him, these special relationships in an examined field and within a given group or society can change the position that individuals take; hence, it has an impact on their social representations.

**The object of social representations**

Beyond the definitions, it is necessary to consider the fact that a social representation always has an object (Flament & Rouquette, 2003). What can be the object of a social representation?
Moliner (1996) distinguishes 5 important aspects of what can be interpreted as an object of a social representation:

1. It has to be a relatively specific “thing” which is important for a given community.
2. Social representations are constructed by conversations of a given group, thus it is important to ask a group which “talks” about the chosen object.
3. If an object is important for a group, it will have a certain kind of stake by itself. This stake has two facets: a. the group established around the object, b. the group was not founded around the object, but it plays an important role in the life of the group, and it provides the possibility of an intensive discourse on this topic, which reinforces the cohesion among each other.
4. A social object always takes place in a social dynamics implying more than one group; these groups can be in interaction because of this object, and this interaction can preserve their identity and cohesion.
5. A rigid societal system can block the discussion on the given object, and in this way the elaboration of a social representation in the group will be obstructed.

Social representations on different objects are constructed, if these objects are important in our lives; hence, the creation of a social representation refers to the importance of the given phenomenon for a given social group. Moreover, groups of people construct social representations because they would like to explain the previously unknown events in their life (Moscovici, 1984/2002); other functions of social representations will also be explained later on the basis of Abric’s theory (1994a).

**Functions of Social Representations**

Regarding some of the functions of social representations two approaches will be presented. According to Moscovici’s theory (1961/2008, 1984/2002) the formations of a representation is fueled by the menace and treatment of the new and unfamiliar pieces of information. In the following section, firstly his theory will be presented. Later, one of the most significant followers of Moscovici, Abric’s (1994a) suppositions will be described, as he orders four main functions to a social representation. These functions are the following: knowledge, identity, orientation, and justification.

For Moscovici a community’s attempt to reconstruct their reality – by creating a common frame of interpretation of the world – gives a feeling of security, because the
members of the community become able to explain the objects around them; in this way they will be able to control the events or phenomena which have an impact on their lives. For example, if a new phenomenon starts to influence people’s everyday life i.e. AIDS (Morin, 1994), Internet (De Rosa & Bocci, 2000), biotechnology (Wagner & Kronenberger, 2001), or the Euro (Battaglia, 2003; De Rosa, Jesuino & Gioiosa, 2003; Meier & Kirchler, 1998; Roland-Lévy, 2002, 2003), etc., this phenomenon will tend to become an object of social representation. One of the most important mechanism of these explanations is that we tend to be afraid of unknown objects or events, and if we can give a name to these new objects or events, or if we can explain the given objects’ working mechanism, then we tend to have more potential control over them (Moscovici, 1984/2002). This process, as we can see on the basis of the definitions, cannot simply be reduced to the level of an individual. Certainly, there are individual cognitive processes which have important role in the formation of social representations, but we have to put in the centre social processes. People, who can share their information with each other about a new phenomenon, will try to find commonly a consensus about the characteristics of a given social object. Hence, summing up the core of these definitions, we can say that communication, as well as the reconstruction of reality and the control over the environment constitute inherent components of social representations.

Furthermore, there are at least two other important aspects that need to be taken into account: 1. different groups have different knowledge, value system, myths, reconstructions of reality, mostly because, in the past, they faced different types of challenges; 2. social representations serve as guidelines for real actions; they give real instructions on how to behave in certain situations. For example, how should we compete which each other, when and why we can cheat in school context, are situations in which it is good to know what can be done within a specific social group.

In sum, according to Moscovici (1984/2002), each representation’s main purpose is to fill the gap of an unknown phenomenon, and thus to make it familiar and explainable. Whereas in the world, if we have representations about the surrounding phenomena, we do not feel insecure, on the contrary, in a situation in which insecurity is high, the number of communicative acts rise in the given group or society. This behavior tries to connect the new element to the already explained and familiar world’s categories. In a group or society, the discourse will reconstruct the previously unknown reality; hence, it will reduce the unknown and, as a consequence, potential menace will disappear (Moscovici, 1984/2002).

Abric’s (1994a) first function, knowledge, concerns the information that helps members of a society to acquire and integrate knowledge in a comprehensible and coherent
way, considering their cognitive and value systems. This function facilitates the communication between them as they can construct a common frame of reference.

The second function concerns *identity*; more precisely, it renders possible the definition of identity, as it protects the specificity of each group. Beyond the cognitive functions, the individuals and the groups are situated in a larger field, i.e. society, culture, etc. This larger frame of reference gives them their personal and social identity. This identity is compatible with the norms and values which are determined by the society itself and its own history. On the one hand, identity is strongly attached to the social comparison (from both a personal and social level), as individuals and groups tend to overestimate their positive traits (Sherif et al. 1954/1961). On the other hand, the identity function assures the community’s control over its member, particularly during the socialization process.

Abric’s third function is the *orientation*. The interpretation of reality gives appropriate basis for actions; hence, the representation guides behavior. This guidance is defined by three factors: a. *it determines the goal of a situation*, b. *it generates a system of anticipations and expectations*, and finally c. *it has a prescriptive nature*. The goal of the situation establishes a set of appropriate relations and usable cognitive functions between the person, or group, and the object; hence, the aim orients behavior. The anticipations and expectations select and filter the information and interpretations in such a manner that it will match with the representation. For example, in Abric’s (1994a) research on competition and cooperation, in the prisoner’s dilemma situation, the expectations were different when the participants believed that their partner was a machine or a human. The participants’ previously formed expectations and anticipations influenced their decisions and behavior (Abric, 1987). The third orienting function of the representations concerns its prescriptive nature; it defines the admissible, tolerable and/or unacceptable behaviors in a given social context (Abric, 1994a).

The fourth function of the representations is, according to Abric, *justification*. With this function, it is possible to justify *a posteriori* the attitudes towards behavior. With this function the individuals and groups can rationalize and explain their behavior in a situation or towards their partners (1994a).

In sum, according to Moscovici (1961/2008, 1984/2002) two main functions can be mentioned: (1) making unfamiliar to familiar and (2) orientation of behavior. Furthermore Abric (1994a) describes three new functions referring to (3) knowledge, (4) identity and (5) justification.
Bridging individual and collective psychological phenomena

The schism between individual and collective psychological phenomena has been a debated topic since the beginning of history of psychology. Moscovici (1961/2008) and other authors who work in the field of social representations aimed at bridging this theoretical and methodological gap. The distinction between individual and collective level also appears in the work of Wilhelm Wundt (cf. Pléh, 2000, concerning the history of psychology) and Robert Farr, 1984, concerning the theory and methods within the framework of social representations; Wundt divided his work into two main parts: (1) folk psychology, which concerns a given community, and (2) experimental psychology, which concerns the individual. Moscovici’s goal was not to create a decontextualized and strictly individual focused social psychology and his major merit is the balance that he found between collectivistic and individualistic theories. In order to find this equilibrium, he looked in the literature, and, not only among psychologist, but also among sociologists, such as Durkheim, as well as anthropologists, such as Lévy-Bruhl. The theory of social representation derives from the theory of Durkheim, who distinguished individual representations from collective representations. Moscovici, with his theory, meant to reformulate the place of social psychology wielding Durkheim’s sharp distinction between individual processes and collective ones. Therefore, he introduced the concept of social representations that differs from both Durkheim’s individual and collective representations. According to his theory, on the one hand social representations *per definitionem* social that are above and beyond individual processes, on the other hand it differs from Durkheim’s collective representations which are rigid in terms of structures and define the way of thinking of large groups such as societies. Moscovici claims that social representations are diversified since a given group, which possesses it, will differ from another social group which does not share the same representation. In that sense, it is hard to refer to one representation of a social object which would be similarly interpreted by a whole society. Furthermore, according to Moscovici (1961/2008) social representations do not have such rigid structures as Durkheim’s collective representations, because they can change, especially under external pressures.

Regarding the methodological schism according to Moscovici and the more quantitative method-centered, structuralist research group from Aix-en-Provence (for example Abric, 1987; Codol, 1984; Tafani, 2001), it is possible to explore representations with ‘hard’ scientific methods; hence, these researchers disagrees with Wundt, who stated that folk-psychology is beyond the scope of experimental research.
Moscovici (and the theory of social representations) diverges with behaviorists, who put the stimulus-response principle in the centre of research; for Moscovici, this kind of reductionism is not operational when dealing with representations, which are behind either stimuli or responses (Moscovici, 1984/2002). Moreover, Moscovici (1963/2002) criticizes main stream American social psychological researches and theories of the fifties and the early sixties on attitudes and opinions, which he sees as a relatively fragmented field which provides particular knowledge elements and, in several cases, lacks an integrated theoretical, holistic framework. In the American social psychology, this fragmentation also continues in the era of social cognition.

This issue was revealed by Duveen and De Rosa (1992) in details. They take into account the common constructivist bases of the two viewpoints. However, they emphasize the constraints of theoretical individualism of social cognition, and they heighten the positive aspect of the treatment of socially created and possessed knowledge which is dealt with in the interactionist framework of social representations. Referring to Moscovici, Duveen and De Rosa (1992) found the basis of the differences concerning the concept of representation. Whereas, for the researchers in the field of social cognition, representation can be interpreted as a synonym of the cognition, for researchers in the field of social representation, cognition cannot be conceived as a representation; in fact, it is more useful to use the term “symbolic” instead of “representation” when dealing with cognition. For Duveen and De Rosa, representation “refers to the organization of the symbolic order, and for this reason the content of what is represented carries as much significance as the form in which it is represented” (1992, p. 98-99.). This means that, from the perspective of the social representation, the symbolic order in which the representation is embedded is more important than it is the case with social cognition. This symbolic order has a crucial impact on the development of the children; this is especially true concerning the content of his/her socially and culturally based representations that a child acquires during the development. Social representation theory puts more emphasis on the impact of the socially based symbolic, than the social cognition does (Duveen & De Rosa, 1992). In the field of social representations, the fact that there is more emphasis on the symbolical order can be explained in another way, which refers to a more explicit and heightened emphasis on the content of representations. However, for researchers in the field of social cognition, it is the process of how we create (mental) representations which is in the centre of the focus.

From the perspective of social cognition the ‘critique’ concerning the different emphasis on the research of individual and social levels is accepted; for example Kruglanski
says the following: “Indeed, both research program contains cognitive and social elements, albeit they emphasize them to different degrees: in the representations program the “social” is often the figure and the “cognitive” the ground, whereas in the social cognition program these “figure-ground” relations are inversed.” (Kruglanski, 2001, p. 243). Furthermore, he states that researches in social cognition examine mostly the within individual processes; between individuals, within groups, and between groups processes get less emphasis, which partly results in the fact that American social psychologists get less voice in larger social issues. However, considering the former critique, Kruglanski revealed efforts, from the perspective of social cognition, in order to go beyond the research on within-individuals level, as well as within groups and between groups processes. He also explained why social cognition does not “incorporate social-context variables as its basic constructs” (Kruglanski, 2001, p. 243).

Kruglanski (2001), following Kurt Lewin’s heritage, warns the researchers in the field of social representations of the confusion between local or phenotypic and general or genotypic explanations of results. It means that it can be dangerous to define special explanations (phenotypic) when somebody takes into account social-context variables, before extensively looking at more general (genotypic) explanations. On the basis of this scientific heritage, it is more fruitful to precisely examine the possible general or genotypic explanations that can take place behind the local phenomena’s explanations. In short, the main critique concerning the researches in the field of social representations is that they do not look at the general explanatory principles as much as social cognition does. Thus, these studies go deeply into the explanation of a specific domain (i.e. mental illness), at a given period of time; however, their results cannot be evaluated in a better way than if only carried out at the phenotypic level. The problem, for Kruglanski, is that these researches in the field of social representations interpret results as genotypic explanations in a given social context; however, they can also be interpreted several times rather as phenotypic explanations lacking an overarching explanation behind them. Furthermore, he also questions the social utility of these studies, since they are extremely diversified across different communities and within a given community across time: “And it is, therefore, legitimate to ask why it is important to study say, the representation of biotechnologies in Europe in the 1990s, the representation of psychoanalysis, or of childhood in France in the 1970s, of public spaces in Brazil in the 1990s, or mental illness in Italy in the 1980s.” (Kruglanski, 2001, p. 247). In sum, Kruglanski’s critics refers to the lack process-orientation, the ‘content-bound’ nature of social
representations and the confusion between phenotypic and genotypic explanations that point out the weak points of the theory of social representations.

Instead of defending the point of view of the theory of social representations, I would like to refer to the opinion of Wolfgang Wagner (1992), concerning the explanatory relevance of theory of social representations and the approach of social cognition. For Wagner, if we want to compare two such overarching theoretical and methodological ‘paradigms’, it is necessary to presuppose a meta-theoretical ecology which concerns both of them. He mentions the following cornerstones which make possible the comparison: (1) the investigated population, (2) the targeted problem or object, (3) and the explanation space which can be examined by both approaches. In order to explain the first point, he starts with the consequences of a methodological issue: the conclusion and the interpretation of certain results can be drawn only for the examined population. For example, if we carried out a study, with French business students, concerning their attitudes towards competition, the results can be interpreted and generalized for this well-defined group. However, the research question also needs to be taken into account; if the nature of the question refers to specific culturally topics, for example their implicit theories on competition, the generalization corresponds to the above-mentioned criteria. But, if we are interested in a general mental process or cognition, then, the results are easier to be generalized to a broader population, or even to the whole human race. However, this scientific approach cannot easily be defendable in the case of all relevant social psychological issues. In this sense, Wagner (1992), along with cultural psychology and cross-cultural psychology textbook writers (e.g. Lan-Anh & Fülöp, 2003) show cultural differences in the case of ‘principal attribution error’ as a mechanism which is present in the case of Western cultures, but not in collectivist cultures. Taking into account researches in the field of cross-cultural and cultural psychology, the question can neither be avoided, nor answered in the case of specific topics. How deep can a cultural, ideological or social positional impact be on the generalized social psychological phenomena? In the case of a given social phenomena these factors result from different processes, or diminish processes that we can see in one culture and not in another (i.e. principal attribution error)? And, on the other side, in which cases the above mentioned “variables” have only a modifier impact on the level of appearance of the general principles or processes? In case of the nature-nurture debate, in most cases, the good question does not start with (a) “which one is better” or (b) “rather which one has larger influence on ...” but with the questioning of (c) “how” (Szokolszky, 2002). This questioning manner refers to the nature of the interplay between generalized social psychological processes and cultural or lower level group positional
impacts. Concerning the incompatibility between social cognition and social representations this debate takes place on the first (Duveen & De Rosa, 1992), on the second (Kruglanski, 2001), and on the third (Rateau & Moliner, 2009; Wagner, 1992) level of questioning.

Wagner’s second point concerns the above introduced problematic content vs. process problem. On the basis of Duveen and De Rosa’s (1992) example, he emphasizes both the general developmental processes and the content of children’s social representations. This corresponds to Szokolszky’s (2002) third level of explanation, in which we take into account the simultaneously appeared general process and the different contents. Wagner (1992) thus does not make an explicit critique towards Duveen and De Rosa (1992), but implicitly, he warns us, similarly to Kruglanski (2001), not to fall into the problematic concerning the phenotypic explanations.

Finally, Wagner’s (1992) third point refers to different spaces of explanation in the field. Researches, in the framework of social representations, aim at exploring and observing the mental topography of social groups, and only a minority of researches focuses on the social representation processes. Hence, for Wagner, the explanation of these researches pays little attention to the intra-individual processes; rather, they explain the top-down social processes which have an impact at the individual level. In this way, Wagner differentiates the explanatory, in which social cognition takes place mainly at the within individual level; however, researches in the field of social representations mainly examine supra-individual processes’ impact on the individual mentality.

Following the above-mentioned main theoretical articles which aimed at defining a relation between social cognition and social representations, there are more recent attempts to bridge the traditional differences between the two theories. One of the best attempts was carried out by Rateau and Moliner (2009) who edited a book gathering researches in the field of categorization, stereotypes, social comparison, attribution, identity, social influence and emotions from the perspective of social representations, which can correspond to the theoretical approaches and scientific results in social cognition. They look for overlapping, and/or complementary explanations, from both theoretical backgrounds, mainly in the fields which are in the previously ‘opaque’ border between intra-individual and supra-individual explanatory fields. However, in this very recent book (Rateau & Moliner, 2009) 17 authors cite eight publications from Moscovici and only two from Susan Fiske, even though Fiske has the same important role in the field of social cognition, as Moscovici has in the field of social representations. Such disproportion of citations shows the bias that favors mainly
explanations deriving mainly from the theory of social representations and underemphasis of explanations from social cognition.

For example, Vidal and Brissaud-Le Poziat (2009) aimed at finding how crucial concepts in the field of social cognition, such as categorization and stereotypes, appear in the field of social representation. The authors present several researches and theoretical writings in which categorization and stereotypes show up, then, they provide a new solution to the dichotomy of process and content (they call it as “produit”, or a product’). For them, both the intrinsic and extrinsic levels of analysis can be involved. In this distinction, the intrinsic level of categorization refers to the analysis of processes. However, the extrinsic level reflects on the structure and organization of products (content) which derive from the above mentioned processes. On the basis of this phenotypic level, which refers to the structure and organization of the given object, it is only possible to suppose the generator processes behind. According to Vidal and Brissaud-Le Poziat (2009) if the categorization of such a process is similar in the case of several different individuals who are under the same stimulation, the process can be dealt with, independently from the social representations (which is the intrinsic level). The role of the social representation is to fill with content the categorizational process, which will result in different organization and structure. However, Vidal and Brissaud-Le Poziat claim that, on the basis of the functions of social representations defined by Abric (1994a), social representations (i.e. justification, orientation, identity, knowledge) can also be conceived as processes, even if they are not just simple ones. In sum, for these authors, social representations are, on one hand, meaningful products of the process of categorization; and on the other hand, they are more complex processes containing the categorization as a basic process.

If we take a look at the literature that Vidal and Brissaud-Le Poziat (2009) cite from social cognition, the result is not satisfactory. The relation between categorization, as a basic social cognitional concept and social representation was described above. This kind of approach towards social cognition can hardly be fruitful, if we take into account, only how the process of categorization appears in the field of social representations; but the reader lacks the well elaborated and deeply rooted theories on categorization from the perspective of social cognition. This way of thinking can only prove the relevance of broad and multifaceted processes, such as categorization, in the field of social representations. However, it cannot create a bridge between two paradigms with different emphasis concerning the relevance of the ‘individual’ versus ‘social’. This approach is true for other chapters, as well.
Moscovici and his followers’ bridging attempt concerning the individual and social on the one hand received several critiques (e.g. Farr, 1984; Kruglanski, 2001); on the other hand, as we have seen in the case of social cognition, it inspired others to improve and refine it (e.g. Abric, 1994a; Doise, 1984; Kirchler, 2007; László, 1999; Rateau & Moliner, 2009; Wagner, 1992, etc.)

**Bridging individual and collective levels on the basis of Doise**

After the short presentation of the main critics and constructive effects of the attempts of social representations in which researchers aimed to connect individual and collective levels, I would like to introduce a more general framework on the basis of Doise’s (1984) work, as he provided guidelines to researchers who work at different levels of analysis within the framework of social representation. On the basis of Doise’s proposal (1984), in the following, we will distinguish four levels of observation, and we will describe the relationship between them. For Doise (1984), it is possible to refine the dichotomy of individual and social by defining continuity between these poles. He suggests 4 main points as sections of continuity:

1. **Psychological or intra-individual level.** This level is supposed to explain the manner in which an individual organizes his/her experience of the social environment. For example, how to organize the great amount and highly complex information of everyday life and how to make a balance between contradictory pieces of information, would be part of this first level of analysis.

2. **Inter-individual or Intra-situational level** - is similar to the first level in many respects from the point of view of social cognition. From the perspective of the theory of social representations for example in a prisoner’s dilemma situation a player’s different representations on the partner or the situation have impact on competitive or cooperative decisions (Abric, 1987).

3. In the third level social status comes in the focus of observation – different positions in society have an impact in several ways on the behavior which appears in social situations (2nd level). In this third case, participants coming from different social classes are not interchangeable in an experiment, because the observed behavior differs due to their different societal positions.

4. **Ideological level** – beyond the scope of the above mentioned levels, participants, coming for psychological experiments, have universal ideological beliefs which influence their actions.
attitudes, their ways of thinking and behaviors. At this level, it is necessary to take into consideration this broader belief, value or ideological systems.

Doise's model (1984), which starts at the individual level and ends up with an overall ideological system, will provide guidelines for the following explanations. We will examine some researches in the field of social representations which belongs to each one of these different levels, tracking Doise’s guidelines.

Intra-individual level

In this part, the focus will be put on the individual processes which are concerned by the theory of social representations. During this description, the main emphasis will be put on the approach of social representations instead of on the theoretical approach of social cognition, even if most of studies in the field of social cognition could also be categorized in this section. This way of description was chosen because we would like to concentrate on the already observed cognitive mechanisms – mostly from the categorization field – of social representations, instead of on processes which exist within the paradigm of social cognition. Moreover, when this description touches theories which are relatively close to each other in both fields, we will try to emphasize explanations related to the social representation theory.

On the basis of the works of Moscovici (1961/2008), Guimelli (1999) and Rouquette (1994), different traits of the everyday thinking logic can be defined as belonging to the individual level. These traits are the following: spontaneous formalisms, causal dualism, primacy of the conclusion, principle of repetition, principle of confirmation, principle of exemplification, principle of examples and analogies.

*Spontaneous formalisms*: in everyday conversations prefabricated expressions or clichés, such as “business connections”, which refers to extremely complex phenomena with thousands of aspects and facets, are used (Guimelli, 1999). If a society encounters a new and multifaceted phenomenon, such as competition in Hungary after the change of regime, the interpretation of this ‘new’ object will start by using already existing categories. These pre-existing concepts (“working competition” or “Stakhanovism” as some of the formalisms which existed during socialism) will constitute the basis of the new concept. Hence, the aspects of the new phenomenon, which are close to the ancient and relevant concept, will be overrepresented in comparison with other less familiar traits (for example economic competition). This aspect of the spontaneous formalisms attached to the process of anchoring.
which will be presented later, but the fact has to be taken into account as these formalisms have a cognitive root, which allows to interpret, integrate a simplification of a very compound concept; and after this step, it allows to use a label which refers to the concept as a whole. The cause of it derives from the needs of communication; it is based according to Moscovici, (cf. 1984/2002) on the fact that an individual in a given-group has to explain a new phenomenon which intruded in his/her life at the group level. Spontaneous formalisms facilitate this exchange of information. Otherwise, if they can become insecure, this facilitated communication carried out by the use of spontaneous formalisms allows them to avoid the feeling of insecurity.

Moreover, spontaneous formalism can be interpreted as a part of conventionalization if we use Moscovici’s words as he claims that during the process of socialization everyone’s mind becomes conditioned by the category, value and linguistic systems of the society: “Nobody’s mind is free from the effects of the prior conditioning which is imposed by the representations, language and culture. We think by means of language; we organize our thoughts, in accordance with a system which is conditioned, both by our representations and by our culture.” (Moscovici, 1984/2002, p. 8).

Hence, most of the time, people, in a given-society or culture, obtain, as a legacy, simplified terms or spontaneous formalisms, and they use them on the basis of pre-existing conventions. The simplification of terms, like competition, corruption or fraud, in Hungary or in France, can therefore be different in diverse societies. In each culture, people may have linked differently these words to the pre-existing frame of references and value systems during the process of socialization. Because of these constraints Hungarian and French students use, for example, the word competition as a spontaneous formalism with different meanings, or at least with a different emphasis according to their culture. In this case, spontaneous formalisms reflect on the different ways of thinking which exist in each culture.

Causal Dualism. A scientific causality between two phenomena is only possible if there is a certain kind of connection between them, when one of them (the cause) is always happening before the other one (the effect), and when the first causes this effect. In everyday thinking, causality is revealed by co-occurrences, similarities or other sorts of categorizations. In several cases, it is the intention of the person that generates this causality (Moscovici, 1961/2008; Guimelli, 1999). Festinger, Riecken and Schacter’s (1956) research illustrates this phenomenon. They observed a group of believers, who expected the Armageddon on a specific day, thus they prayed as much as they could in order to save the Earth; and when on the expected day, there was no catastrophe, they attributed it to the success of their prayers,
neglecting other factors i.e. physical laws, lack of menacing meteors, etc… In this case, it was more important for them to justify the pre-existing belief systems, and it was only secondary to respect the “scientists’ causality”.

*Primacy of conclusions.* In a scientific study, the researchers conclude on the basis of the premises; they gather the pieces of information and interpret them. In common sense, the conclusion is made before the analysis of the premises, considering the values and general opinions of the groups to which the decision-maker belongs. In this case, the judgment comes before the negotiation. Evaluation of an object depends vastly on the consensus of the group towards the given phenomena; this force is much stronger than the importance of deep processing of each detail of premises which are needed to an appropriate decision (Moscovici, 1961/2008; Guimelli, 1999). But, a question remains: why is the consensus of the group so important that it can overwrite the negotiation and later provoke the decision-making sequence? For Moscovici, this happens this way because the values and general opinions of the group are “familiar places” for the individual; these shared values give a safe place, and if a member of the group would like to take into consideration the premises – such as a scientist does – he would easily get to the jungle of unfamiliar explanations (Moscovici, 1984/2002).

*Principle of repetition.* The recurring presence of the pre-existing ideas is a key trait of this logic. The terms that express the values of the given group or society, in which a person lives, are frequently circulating; the group reiterates permanently its values and beliefs, thus reinforces the consensus among the members (Moscovici, 1961/2008; Guimelli, 1999).

Rouquette (1994) describes two kinds of characteristics of common sense: the confirmation and the principle of exemplification. *Confirmation* refers to the verification of the group’s opinions, values and beliefs. A group, which encounters a new object, will confirm the parts of it which are consistent with the pre-existing group beliefs or values; however, these parts or features might be underrepresented among the object’s original trait set. The opposite is true for the inconsistent cues: they will be denied, even if the central position of these parts is unquestionable according to the original object. Confirmation also exists in the world of scientists, but it is perceived very negatively when under any external pressure they don’t publish or present results which are non-conform of the paradigm, political or economical views; the aim is the production of objective and unbiased facts.

In the battle against the inconsistent pieces of information in connection with the original ideas, one of the most useful tools is the *principle of exemplification* which has a central role. Facing with inconsistent facts, this mechanism proposes a possibility to give a personal and unique example which verifies the person’s original opinion. This information
can derive from another member of the group or from a rumor – even if it can be incredible – it seems to be a quite strong proof to refute the inconsistent ideas. The scientific way of thinking uses statistics and different methods avoiding misinterpretation of the unique examples, which is the opposite of the above-mentioned mechanisms.

The goal of both confirmation and exemplification is the preservation of the pre-existing and commonly shared information which reinforces the consensus between group members. This consensus provides security to the group-members by creating a common frame of interpretation and a shared knowledge about social objects; moreover, it can reinforce the members’ social identity by forging their opinions. Even if these mechanisms have social roots, they work at the individual level.

The analogy is one of the most central activities which organizes common sense. With an analogy, it is possible to generalize the traits of one object to another one. Moscovici’s (1961/2008) example is the interpretation of psychoanalysis as a confession. In this case, the understanding of a new phenomenon, psychoanalysis, is carried out by an analogy which has much deeper roots in our tradition i.e. confession. The result of this process is that, on the one hand confession loses its religious nature, on the other hand psychoanalysis loses its complexity, but that is a reasonable compromise considering cognitive economy. On a larger scale, analogy puts different objects close to each other; it augments the similarity between them, and it makes possible to understand objects by already understood things. Analogies are frequently used in science too in order to better understand various other phenomena, but in everyday life, it happens on a more superficial way, whereas, science strives to distinguish facts from other facts as precisely as possible.

In the descriptions, we have seen that several aspects of these cognitive mechanisms are in strong relationship with other levels of interpretations (situational, societal, ideological). Group consensus, the opinion of the others, pre-existing value systems of the culture, play a significant role during these processes. But, in this part, the focus is on the cognitive processes: how an individual who is closely attached to her/his group, interprets the world around her/him. In the following paragraphs, it is now necessary to mention at least superficially the mechanisms of objectification and anchoring which refer to this level, because they have several common aspects with the previous mechanisms. Nevertheless, these two crucial processes will be presented globally later in a more detailed manner.
Inter-individual and intra-situational level

This level is concerned with inter-individual and intra-situational processes (cf. Doise, 1984). Experiments, which use the paradigm of game theory or attribution of characteristics to others, belong to this category. For example, Abric’s (1987) experiment series belong to this group of studies, which examined cooperative and competitive responses in different situations in which participants formed representations about the opponent, task and her/his behavior, the situation, etc. In the following, we will present this study because on one hand it illustrates well this level of analysis; and, on the other hand it enlightens the topic of competition.

This series of studies used the prisoners’ dilemma which is a mixed motivational game with two participants. From the point of view of the participants two different motives play a role in this game: 1. Competition which can result in more points for the competing person in the given turn, but this motive also has a negative side – the other person will gain less – hence, in the long run, competing strategy lowers the trust between the two parts and results in less payout; 2. Cooperation which can result in a relatively high payout (but it is lower than the competitive gain) for each participant, but in the long run, it provides more payout than the use of competitive strategies. Hence, participants can chose between two possibilities: cooperation or competition.

Abric’s main goal was to prove that the representation, which was constructed by participants, influences their motives of competition and cooperation. On the basis of this notion, he made the conditions vary according to three main directions: 1. the representation of the participant herself/himself; 2. the representation of the partner or her/his behavior, and finally 3. the representation of the task which defines the objectives of the participants. He gave each time the same layout of the game, but the representations varied in the above-mentioned ways. For example, when he manipulated the representation of the partner, he told the participants that the opponent was a “machine” versus a “student”. When the representation of the task was to vary, he made a situation in which it was interpreted either as a “game” or as a “resolution of a problem” (Abric, 1970; Abric & Kahan, 1972; Abric, Fauchaeux, Moscovici, & Plon, 1967; see the summary, in Abric, 1987). These manipulations produced different responses from the participants; hence, it is possible to conclude, on the basis of these experiments, that the representation constructed on the self, the partner and the task influence profoundly the competitive and cooperative responses.
Abric’s (1987) studies on competition and cooperation were an illustration of inter-individual or intra situational level of experimental analysis in the field of social representations. These methods shed light on the importance of representations – but strictly not socially shared representations – that take place behind decisions and further behavior of participants in an experimental task such as the prisoner’s dilemma. However, we have to take into consideration that these representations exist at an individual level, therefore, in such experimental settings we cannot really refer to socially shared representations.

Differences in terms of position and social status

Position and social status appear as intervening variables to account for situational interactions. In Abric’s studies, participants who possess different social status are not interchangeable. The basis of the social positioning is the anchoring of the shared knowledge. In different groups, members have dissimilar beliefs and personal previous experiences; because their socialization was different, therefore, they do not have the same common points of reference. These common points of references, which are based on the shared knowledge, opinions and beliefs, and not just the use of similar verbal expressions, are known as general or organizing principles of thinking.

For Doise (1990), it is possible to define social representations as the generator of positions, this latest is situated within a larger, but domain specific ideological and value field; moreover it is in relation with other positions in the same field. In order to understand Doise’s concept about generating principles, it is necessary to take into consideration two theoretical aspects that he forged together. On the one hand, he uses the theory of social representations, as presented by Moscovici (1961/2008), and on the other hand, he refers to the concepts of field (champ) (Bourdieu, 1966, 1971, 1978, 1980) and Bourdieu’s habitus (Bourdieu, 1971, 1978, 1980). In the following these two concepts will be described shortly.

The field concept refers to a series of activities and rules of a given, hierarchical community. The field is a structured space, and within this social space there are lower and higher positions; moreover, fields possess general laws: different fields, such as political field, educational field, religious or scientific fields, possess different rules and stakes. Within the field, participants implicitly or/and explicitly accept the rules and stakes of the field, and they strive towards higher positions by acquiring the given field’s stakes (Bourdieu, 1966, 1971,
In Doise’s case, the different positions within the given field will be in the focus of the studies.

The concept of *habitus* can be interpreted as a link between the social institutions and the active individuals. In short, the *habitus* is the result of the adaptation of the given person to the field. The individual learns to respect the rules and strives for the predefined goals in a given field which requires obedience of the rules. Through the *habitus*, the institutional structure can drive the practice in a semi-controlled way. However, the obedience is an important part in the interaction between the *habitus* and social institution, constrains are not stifling for the individual. Respecting the rules of the field, the *habitus* is free to be expressed in a several ways. In this way, neither the practices will be characterized by the pointless improvisation, or will the mechanic simple reproduction (Bourdieu, 1980).

In sum, in order to approach Doise’s (1990) theory about organizing principles, the field can be defined as a collection of social objects which are in a hierarchical and/or opposing relationships with each other; and within the field, these relations control the distribution of a specific capital which conveys social value. In a given field, there are tacitly well-known (but explicitly not declared) rules and laws; and on the basis of these criteria the members of the field categorize each other in different classes of sub-classes. From the individual side, this is the *habitus* which is internalized through the above-mentioned relation systems (oppositions, hierarchies). The *habitus*, or dispositional system, defines what is rational, how to classify things, and it gives a frame of reference of the symbolical fields; hence, it defines the common sense of the given-class or fragment of class.

In order to establish the notion of organizing principles, Doise connects Bourdieu’s notions of *habitus* or dispositional system, to Moscovici’s social representations theory. For Doise, the different positions which are possessed by subgroups within a larger community in a society, in a given-field, or within a broader framework, such as ideology, are relevant because they can result in heterogeneous social representations. In sum, for Doise social representations can be interpreted as organizing principles which are part of a larger structure – an ideology – the field for Bourdieu. In the following, we will see an example of how Doise’s organizing principles appear in a research on solidarity and social welfare.

Researchers, who are working in the field of social dominance, identity or intergroup conflicts, have to take into account the existence of different organizing principles. Instead of citing more recent studies, such as Jost’s (2003), or Sidanius and Pratto’s (2005), here we will select a study by Clémence, Egloff, Gardiol and Gobet (1994) on solidarity and social welfare which demonstrates how much social positioning counts in a specific field. Solidarity and
social welfare were part of a current question in Switzerland at the time of data gathering (1991). Participants, from German- and French-speaking areas, filled in a standardized questionnaire on different aspects of social welfare (social security, explanations of social problems, personal involvement in social areas, etc). In the two linguistic groups, there were some cultural and economic differences. On the one hand, economic conditions were better in the German part, but on the other hand, Swiss French voters supported more collective aid and social institutions than Swiss Germans who promoted individual self-helping. Moreover, beyond the cultural and economic differences, the low- and high-level religious adherences were interpreted as different organizing principles. Furthermore, the members of both groups expressed their position towards (a) the quality of social relations between different groups, (b) the appraisal of institutional aid or solidarity towards the members of society, and (c) the self-serving principles (social health-related risks such as the likelihood to be victim of an accident) by answering several questions. The authors hypothesized that these positions can be anchored respectively on linguistic (hence cultural and economic) and on the different religious groups. On the basis of their results self-serving principle (health-related risks) and the evaluation of social harmony (quality of social relations) are the two most important organizing principles of welfare. However, these positions were differently anchored in the case of two linguistic groups: Swiss Germans evaluated more negatively the social relations and estimated higher the health-related risks than Swiss French did. In general, in comparison to Swiss German, Swiss French exhibited a more favorable position towards social welfare. Concerning religion, the authors also found some differences: high religious observance implies a more positive position concerning social relations, along with a more negative perception of social welfare.

In this case, we can note that the different groups from the same society, who possess different principles, position themselves in dissimilar ways in the above-mentioned dimensions of welfare.

Level of universalized ideological beliefs

In order to start the demonstration of this level of explanation firstly Clémence and his colleagues’ (Clémence, Devos, & Doise, 2001) research will be detailed in which the authors compared how students evaluate human-right violations in Costa Rica, France, Italy, Romania and Switzerland. The goal of the researchers was to demonstrate strong cross-national
convergences instead of speculating on inter-country differences. The authors showed that the
cognitive organization of human-rights’ violations is similar in these different national
contexts. Moreover, Clémence and his colleagues, in this paper, demonstrated that, not only
the cognitive organization is similar in different national contexts, but also that the variations
in the different positions are organized in similar ways in different countries. Thus, this study
shows that there are some common grounds in different national contexts; hence, the authors
refer to the presence of universal ideological beliefs.

We will now present another study which compares Western European countries
(England, Scotland, France) to Eastern European ones (Hungary, Czechs Republic, Slovakia);
the comparison deals with the social representation of the individual, and issues which are
important for the well-being of individuals. The authors’ (Markovà, Moodie, Farr, Drozda-
Senkowska, Eros, Plichtova, Gervais, Hoffmannova, & Mullerova, 1998) wondered if people
in the post-Communist countries of Central Europe, after 40 years of totalitarian collectivism,
still adhere to the values of the common European heritage; they approached this question by
concentrating on the meaning of ‘individual’. They dealt with individualism in a dissimilar
way than in the main stream cross-cultural psychology did. However, the authors refer to
individualism at various levels, such as an economic, humanistic and political principal,
which is part of the common European heritage, shared in Eastern and Western Europe since
the Renaissance. The main question, in this study, was the measure of the transformation of
the concept of individualism, during the Soviet domination, when the basic values of
individualism, such as personal uniqueness, freedom of choice, individual rights, were more
or less rejected (depending on the countries and the different periods of these 40 years). At
this time, the aim was to reach uniformity in life-style, in attitudes and in thinking; individual
identity was diminished. On the other hand, in Western European societies, individualism, as
a form of self-centeredness, became salient; moreover, in certain aspects, it started to threaten
society by the dangers of fragmentation or hostility towards strong governments. The results
of this study showed that, in spite of 40 years of enforced influence of Soviet totalitarian
ideology, and despite of the political, economic and ideological differences, the main values
of the common European heritage in Central Europe are similar to those in Western European
countries; however, the factors concerning the well-being of individual are different (see
below). From the first results, on the basis of different analyses, both Central and Western
European samples, freedom, rights, democracy, justice, and self-determination, turned out to
be the most salient elements of the social representation. Concerning well-being, the economy
factor showed differences between the two parts of Europe: ‘individual in the market
economy’, ‘privatization’, ‘state’, ‘law and order’, ‘nation’, ‘character’, and ‘self-determination’ were more positively evaluated by Central Europeans than by respondents from Western Europe; moreover, the factor concerning ‘socialism’, ‘capitalism’ and ‘political parties’ also reflected differences between these two contrasted parts of Europe. The factors of “wealth”, “collective values” and “community” were perceived as more important for Western Europeans than for their Central counterparts. The less emphasis on these values in the Post Communist countries can be explained by the after-effect dimension of totalitarian collectivist systems. However, among these nations, the Hungarians evaluated most positively the factor of “community”; this can be explained by the less severe form of totalitarian collectivism in Hungary, in comparison with the former Czechoslovakia. In this case, as we have seen, there are several similarities and differences which appeared based on the different economic, political and historical heritages. Even if the central elements of individualism remained unchanged in the Post communist Central European countries, there were some differences in their evaluation concerning well-being in comparison to Western Europeans.

As we have seen, differences in terms of history can result, more or less, in deep cultural differences. At this ideological level, it is therefore necessary to take into account the different historical heritage, especially when comparing different cultures and/or countries. This leads us to the concept of collective memory which is attached to the name of Maurice Halbwachs, a philosopher and sociologist from Reims. On the basis of his theory, the individual remembers main elements in culture from the point of view of the community in which he/she was brought up, and the memory of the group manifests itself through the individual. The interaction between individuals plays a crucial role in the creation and the reservation of memories of a given-group (Halbwachs, 1950). For him, individual memory can operate only in a collective context; the different collective contexts, as different groups reconstruct their reality in different ways, will result in different behaviors. Furthermore, it is possible to distinguish historical memory from collective memory (cf. Halbwachs, 1950). The main difference between the two is that, while collective memory is based on the transmission of the information and stories between living generations, historical memory is the result of the systematic scientific reconstruction of the past. The two are not separated since historical memory also pervades via collective memory. Assman (1999), following Halbwachs’ way of thinking, distinguishes communicative memory from cultural memory. The communicative memory is linked to the contemporary period, and it covers a time span of approximately 80-100 years. On the other hand, cultural memory has deeper roots in the past; it goes back to the origin of the group itself. In communicative memory, the personal path of life or experience
are very important for the individual, whereas, informal communication has a greater impact, in the collective memory; this difference is based on the idea that, in informal communication, ceremonial communication and the symbolic demonstration of tradition plays the main role (László, 2003).

There is a clear relationship between collective memory and social representations. For example, Bonardi and Roussiau (2002), when looking for connections between social memory and social representation, refer to the theory of Abric (1994a). For them, the central core of the representation, which is stable and resistant towards changes, is deeply rooted into the collective memory of the social group, whereas, it is different with the peripheral part of the representation, which is more anchored in the momentary reality; moreover, peripheral elements contain the instable, developing, and not solid elements. Hence, the peripheral part is closer to individual memories, whereas, the widely consensual central core is rooted in the collectively shared memories.

From another perspective, it is possible to find relationship between collective memory and Doise et al.’s organizing principles (Doise, 1990; Bonardi & Roussiau, 2002) which can be interpreted as scenario, rules, norms, or in short, as a metasystem which is the result of a group based on it’s socio-historical generating process, and which has an impact on the individual who lives in a given socio-context. The effect of collective memories can be interpreted as the pressure which derives from a normative nature of the metasystem.

In summing up the possible relationships between social representation and memory, Bonardi and Roussiau (2002) mentioned the following points: a. memory influences the content of the representation; b. it has an impact on the dynamics and processes of social representations, as social representations orient, organize and filter the commonly shared content of memories for the (re)construction of the representation; c. the historically rooted objects of social representations, the institutions and the wider systems in which it takes place have an impact on the creation, change, organization and content of social representations; moreover, the relationship between collective memory and individual memory exists in social representation.

After taking into account the fact that historical memory and social representations are intertwined in several ways, László, Ehmann and Imre researches (László, 2003; László et al., 2002) will be presented in order to show some guidelines for the understanding of Hungarians’ social representations based on main national historical events. In one of these studies, 132 students were asked to describe their most positive and most negative Hungarian historical events; furthermore, they were instructed to describe a historical event that had an
impact on his/her family. Among the 10 most frequently mentioned events, the majority of the positive events occurred before the sixteenth century. The change of the political system in 1989 was, for the respondents, the only slightly positive event since the middle of the nineteenth century. Moreover, this latest and most recent event was mentioned quite rarely by the students. The authors give three distinct explanations to this result: (1) the contemporary history did not penetrate into the communicative memory of the examined children; (2) this period was neither evaluated positively nor negatively because it ended up in a peaceful way, and not in a dramatic manner; (3) the third explanation refers to the uniqueness of the schema that appears in this case. While previous schemas fit to (a) the schema of victory such as in the case of kings in the middle-ages; (b) the schema of failures, for example in the two World Wars; (c) the schema of victory and after it immediately failure similarly to the success of revolution, and the failure of the war of independence in the middle of the nineteenth century, but there was no previous example for the (d) failure then victory schema. Nevertheless, the change of regime after the period influenced by Soviet authorities belongs to this latest category. Due to the lack of such schema according to the authors, this event could not anchor to previous historical schemas, therefore it appeared rarely as a positive event. Finally, regarding the third question referring to historical events related to their family, the majority of students could not write anything, and there was only one respondent who wrote a positive event. All of the others mentioned a negative experience.

There is one more aspect which touches this level of explanation; this refers to a concept which is named *themata* (Holton, 1978; Moscovici, 1992; Moscovici & Vignaux, 1994; Markovà, 2000). The concept of *themata* derives from Holton, philosopher of science, who defined it in the following way: “fundamental presuppositions, notions, terms, methodological judgments and decisions which are themselves neither directly evolved from, nor resolvable into, objective observation on the one hand, or logical, mathematical and other formal analytical ratiocination on the other hand” (Holton, 1973, p. 57). Hence, *themata*, in the framework of social representations, can be interpreted as a culturally shared primitive preconception, image or pre-categorization, which constrains a member of a given group in the explanation of different facts (Moscovici & Vignaux, 1994). In general, it is characterized by high stability and endurance; furthermore, it contains dyads or oppositions (Holton, 1978; Moscovici & Vignaux, 1994; Markovà, 2000). The most important aspect, in our case, is the acquisition of these very salient dichotomies. The acquisition happens automatically during the process of socialization in a given culture and it reflects to the historical background. The opposing content of ideas can become a *themata*, because, in the
given-culture during a long period of time, the dichotomy, which lies behind the *themata*, caused problems, or simply were in the centre of the way of thinking. Markovà (2000) gives, as an example, the dichotomy between clean or dirty, which is learned by children during the socialization process, with, for example, a repeated presentation of what they are, or are not, allowed to eat. Nevertheless, this dichotomy between clean and dirty exists in every culture, in more or less similar forms, categorizations are often given on this basis, but the same object can be clean or dirty depending on the culture (for example food on the floor is not a problem in Indian tradition, where it is in the Western culture). There are universal categories, such as freedom vs. oppression, or healthiness vs. illness, for which the *themata* is the same, even if the categorization of the examples will depend on the culture (Markovà, 2000).

In our case, the *themata* can be interpreted as a wider pattern which appears with different accents among Hungarian and French students in the field of competition, fraud and corruption; therefore, we can expect dichotomies, such as winning vs. losing, in the field of competition, or cheater vs. honest in the field of fraud, but with differences in the specific context in which they appear in the given-culture.

In the last part of the theoretical introduction, on the basis of Doise’s categorization (1984), the aim was to sum up how different theoretical branches, deriving from Moscovici’s social representations, bridge the level between individuals and the social dimension. Our analysis focused mainly on the ideological level. The reason for this is that the current research project aims at demonstrating how tomorrow’s French and Hungarian businessmen, possessing different cultural, historical, economic and political roots, construct their social representation of competition, fraud and corruption. The author suggests that differences between historical heritage, beliefs, norms and values have a visible impact on the social representation. However, in several respects the main ideological roots – as in the case of human-rights (Doise et al., 2003) in very different countries, or the individual in Eastern and Western Europe (Markovà et al., 1998) – or the *themata* (Moscovici & Vignaux, 1994; Markovà, 2000) can provide a common frame of reference for the analysis. Concerning how it is possible to put in an integrative framework the above-mentioned elements, Flament and Rouquette (2003) give a good example (see Figure 1). For these authors two parallel, but inverse, axes constitute the basis of their model: 1. the intra- and inter-individual variability; 2. the level of integration. The lower the level of integration is, the higher the intra- and inter-individual variability are (see Figure 1). The level which can be characterized with the highest level of integration along with the weakest intra- and inter-individual variability is the ideological level. It contains beliefs, values, norms and the *themata*. This level provides the
context in which social representations embed. The following level, with relatively high-level of integration and low-level of intra- and inter-individual variability, refers to social representations. The third level concerns the attitudes, with a relative low-level of integration and a high-level of intra- and inter-individual variability. The lowest level concerns the opinions, with the highest level of variability and the lowest level of integration.

The ideological level gives the basics for the building of social representations (see the discussion on themata); social representations provide the fundamentals for the constitution of attitudes (see Jaspars & Fraser, 1984; Moliner & Tafani, 1997). Finally, personal opinions are, at least partly, under the influence of attitudes, and they are closely linked to to social representations also. Furthermore, the higher the integration, the harder it is to change the elements; it means that higher levels are more resistant concerning changes than lower levels. It also implies that changes at a lower level will not necessarily cause changes at the higher levels (Flament & Rouquette, 2003).

**Reconstruction of the Reality and Structure of the Representations**

The theory of social representations has constructionist view about individuals, who have questions, who seek answers, and who reflect on ideas. This person is not an information processor, the main aim is not behaving somehow, but the comprehension of a phenomenon that she/he faces with (Moscovici, 1984/2002). These individuals communicate with each other, and this comprehension ascends a social-level, in which everybody communicates its representation; they create ordinary philosophies and these philosophies have a crucial impact on their decisions, social relations and observable behavior. The theories, ideologies, beliefs are forged to a commonly possessed reality; in other words they create collectively a model of reality. This reality is sustained, reverberated and reformulated by the communication of the given community.
Objectification and Anchoring

In the following we will discuss the main mechanisms which play roles in the process of reconstruction. In previous parts, when the scientific knowledge and the everyday representations were analyzed, the principles of spontaneous formalisms, repetition, exemplification and analogies were mentioned. All these mechanisms play a role in the reconstructing process. However, the two most important ones, namely objectification and anchoring will be described here.

Objectification is a process in which a group can naturalize and simplify an abstract concept; objectification transforms it into something more concrete (Guimelli, 1999). The naturalization, simplification and concretization happen considering the logic and pre-existing knowledge of the given-group. Guimelli (1999) distinguishes two phenomena according to objectification. It is on the one hand, the perceptive selection, and on the other hand, the decontextualization.

The perceptive selection, on the one hand filters the available information, and on the other hand has a normative function: it selects the pieces of information which fit with the values of the group. The decontextualization is also a form of selection, i.e. when a group meets a new phenomenon, it tends to ignore the original context of the information; the community cuts the phenomenon’s roots and interprets it freely, considering the group’s own expectations and pre-existing representations. In this way, the group can build in the new element, which will constitute a part of the biased, but coherent reality.

The perceptive selection and the decontextualization both belong to the first step of the objectification; in the second step, the selected notions generate the figurative core of the representation. The figurative core contains only a few, particular elements, which compose the concrete substance of the representation. For example, in Moscovici’s initial research on psychoanalysis, this element was constituted by the opposition between the conscious and unconscious parts of the psyche. The conflict, between these two parts, explains the existence of the suppression of hidden and unconscious contents. The triad of the opposing conscious and unconscious parts, and the suppression as a gate, is organized as a determinative complex, which constitutes the figurative core of the representation of psychoanalysis. In the figurative core, the libido – which is a central element of Freud’s original theory – disappears. The underweighting of the libido is based on the common way of thinking, which is opposed to
the idea that sexuality is a determining force of personality. Once the figurative core is established, it becomes an unquestionable fact in the everyday knowledge, and it allows creating new social categories, from which it is possible to interpret reality (Moscovici, 1961/2008).

*Anchor*ing ties the representation to the pre-existing system of notions. This insertion is always consistent with the acutely salient values and beliefs of the given group. The new information will be hitched to old ones; hence, the unfamiliar will become more familiar. For Moscovici, the categorization is in the centre of this process. Doise and Palmonari’s explanation of the anchoring is that it “makes possible to incorporate something unfamiliar which doesn’t fit into our own category system and it makes possible to confront with a component or member of a familiar category.” (Doise & Palmonari, 1986, p. 22.)

For Doise (1990), anchoring refers to the integration or to the binding of an object into a pre-existing frame of reference; this frame is often composed of various components, including previous representations, ideologies, attitudes, beliefs, values, behaviors, etc. This integration can change the frame of reference itself (catastrophe, innovations, etc.) if the effect of the new object is appropriately powerful and widespread (Seca, 2001). But, this change is not necessary; because the transformation concerns mostly the new object. Hence, thanks to anchoring, the new object becomes more familiar, gets closer to the norms of groups and will be conformed to their values.

In the following, Doise’s (1992) categorization of different levels of anchoring will be demonstrated which is parallel with the above-mentioned levels of interpretation concerning the researches in the field of social representations. He distinguishes three levels of anchoring; the first is the psychological level; the second is the psycho-sociological level, the third is sociological level. The researchers who work in the psychological level presuppose that attitudes, beliefs and values concerning a social object vary among individuals in a given society. Moreover, these attitudes, etc., are characterized by diverse intensity. At this level, the different positions in society occupied by the participants are not taken into consideration. However, this is not true for the second and the third level. At the second level, anchoring “…incribes the content of the social representations on the basis of the subject’s position, social relations and positional division in a given field.” (Doise, 1992, p. 192). Furthermore, at the sociological level, opinions and beliefs have common roots, based on similar experiences of different groups, which provide them collective identity. These groups take place within broader shared network of social relations. For the third level, during the process of anchoring, it is the membership of the positioned group which has a significant impact on
the formation of social representation. Doise’s model, with the refined three levels, has to be
taken into account in both theoretical and methodological levels during the construction of
tools chosen in order to approach a social representation and for the analysis of the results.

In conclusion, objectification describes the manner in which a new object is shaped
(concretization, simplification, naturalization), while anchoring shows the way of how it is
applied and integrated into the pre-existing frames of references by the members of a group
who met the new object or dealt with an old one. Objectification and anchoring occur
frequently at the same time that is why only experimental studies cannot easily deal with them
separately; in general they are intertwined (Seca, 2001).

Structure of Social Representations

Moscovici (1961/2008) introduced the notion of the figurative core in social representations,
with the initial study of psychoanalysis, but his followers developed a more structural analysis
of social representations. The central core theory according to Abric will therefore now be
explained. For him (Abric, 1994a), the representation is a sum of different pieces of
information, beliefs and attitudes, of a given-object. Moreover, a representation is a
structured-system composed of different parts. If we want to get acquainted with a social
representation, it is inevitable to have information about both its content and its structure. In
Abric’s theory, the components of a social representation are organized in a hierarchical
manner, and there are multiple relations among the different parts. According to him (Abric
1987, 1994a, 2002), these elements are organized around a central core which contains only
few elements, these items having a pervasively influential role, as they define the meaning of
the whole representation.

Abric’s Central Core Hypothesis

As mentioned about objectification, the notion of the central core appeared in Moscovici’
work as the figurative core, but it was Abric who developed the theory of the central core
central core. It provides the essential meaning of a social representation, since the
representation is organized around this central part. For Abric, this part has three main
functions: 1. the generator function, 2. the organizational function, and 3. the function of stabilization (Abric, 1994a, 2002)

The central core’s *generator function* defines the meaning of the representation; it permits the creation and transformation of the other, less centrally located, elements, which also belong to the representation. Moreover, this function restricts the values and significations of these components. So, it has a fundamental role in the definition as well as in the formation of the other parts of the representation.

With the *organizing function*, the central core, on the one hand, defines the nature of the connections between the other components of the representation; on the other hand, it provides the global constitution or structure of the social representation.

The *stabilization function*, on the one hand, has a unifier role, and on the other hand, it refers to the stability of the representation; it makes the central core the more resistant element of the representation. Thus, thanks to this function, the central core can resist, in spite of the altering environmental effects. It assures the permanence of the representation in changing contexts.

On the basis of Abric’s hypothesis, two representations can be different only if (some elements of) the central cores are different from each other. If the differences between the content of two groups’ social representation concern the central core, the dissimilarity can be interpreted as fundamental. Otherwise, if the difference does not affect the central core, only minor differences can be stated, and, in this case, we are talking about the same representation. In sum, the central core contains the most salient elements and it defines the meaning of the whole representation; moreover, it has major impact on the other components in terms of their value and meaning. The central core also holds the marks of the represented object’s features, and reflects on the given-group’s stance and relation towards the represented object. This relation vastly depends on the values of the group’s and the ideological background which is dominant at a given-period (Abric, 1994a).

The central core can be described by two dimensions, namely by the functional dimension and by the normative dimension. The *functional dimension* provides guidelines for the interpretation of a situation in a given-context, and gives an action-plan for the behavior (see in more details later when the relationship between social representation and behavior will be described). The *normative dimension* of the central core contains the social norms and stereotypes which pervasively define the whole representation (For more on this, see the relationship between norms and social representations in Figure 1 on the basis of Flament and Rouquette, 2003). In the central core, there are elements which refer to both the *normative*
and the *functional dimensions*. The normative elements are directly linked to the value system of a given person, and they are connected to the contextual history of the group as well as to the ideological level; moreover, these elements refer to the judgments and to the stances or positions that the person takes towards a social object. On the other hand the central core also contains functional elements; they have a descriptive role and they provide guidelines concerning social practices. Because of these different functional dimensions, the central core has a double-sided nature: on the one hand it evaluates, on the other hand it defines specific practices. If the proportion of normative elements is larger than the proportion of functional elements, the social representation of the given-group reflects on practices to a smaller extent. Otherwise, an important number of functional elements can be interpreted as the close relationship between the representation and everyday practices of the given-group. There are exceptions here; for example, when a group, because of a given-norm, does not want to express explicitly the point of view that it possesses it might imply that some of the content of the representation remains hidden (*zone muette* - hidden zone, cf. Guimelli & Deschamps, 2000).

The elements of the central core are an essential part of a social representation; if one of the central elements disappears from a representation, it will be almost sure that the meaning of the representation will change. This was the case when the social representation of an ideal group was investigated. In the central core of an ideal group there are two main concepts: ‘friendship’ and ‘equality’. If the item ‘friendship’ was removed from the representation, 92% of the respondents could not interpret the rest of the content as being part of the social representation of an ideal group; similar results were also revealed in the case of equality, but with relatively lower figures (73%) (see Rateau, 1995). Abric (2002) in demonstrating the indispensable nature of central core’s elements draws attention to the hierarchy within the elements composing the central core. According to the above-mentioned percentages, it is possible to define the different hierarchical positions of “friendship” compared to the one of “equality”. In the case of the social representation of an ideal group, friendship occupies a more central place in the social representation than equality.

During the analysis of a social representation, it is necessary to conceive that not all representations have a central core. On the basis of the lack, or presence, of the central core, it is possible to distinguish autonomic from non-autonomic representations. *Autonomic representations* possess their own independent central core elements; it means that the core of the representation is the object itself. On the contrary, the *non-autonomic representations*’ central core is not the object itself; hence, the analyzed object is a part of a more global and
closely interdependent representation’s network. The objects of a non-autonomic representation are more specific; and they don’t constitute the topic of the everyday discourses. That is why they have a well-defined central core, which is a consequence of the vivid and frequent discourse crystallizing the central core (Abric, 1994a).

After presenting the functions of a representation, as well as its different dimensions and the autonomy of central core, it is now necessary to explain how a central core works, namely to describe the process of a central core’s activation. As we have seen in the previous example, the central core contains several elements. There are situations in which all of the central core’s elements are activated at the same level, but, in most cases, the activation of the elements depends on the social context. Hence, in most cases there are some more active and some less active elements; the more activated an element is, the more important the role it plays in defining the meaning of the representation. In order to activate the central core’s elements, two main factors have an impact on this activation: a. the purpose of the situation, b. the distance between the object and the group itself (Abric, 2002).

a. If the situation has a practical purpose, the functional elements will be more salient; otherwise, for example in the case of a social exchange or an evaluation of positioning, the normative dimension will be prominent.

b. If a group is close to the given-object, if it is part of its everyday life, the practical elements will be more visible, and vice-versa. This distance between the group and the object can be described by three factors: (i) the level of the practice with the given-object, (ii) the acquaintance with and/or the knowledge about the object, and (iii) the involvement of the group, in connection with the social object.

During our research project, the practical aspects of the central core will be put in the centre mainly for the approach of the social representation of fraud and corruption. We will focus on these dimensions a. by measuring their relative presence in the representations in a general context, and b. by finding the context and situational factors in which these practical aspects saliently show up in the life of the coming generation of businessmen. Moreover, the more the group is involved in the social representation of the given object, the harder this representation will be to change; this implies that the group will resist towards any changes concerning their original way of thinking (Abric, 2002).

There is one more thing that is needed to be taken into account for the work with these delicate topics. There might be parts of the representations which cannot be expressed by participants because of their social norms and values, which repress some of the central elements from the representations. On the basis of Guimelli and Deschamps’ work (2000), the
under activated, or sleeping parts, of a representation are known to be a “zone muette” (hidden zone) as Guimelli and Deschamps called it in their research concerning the social representations of gypsies (2000).

However, it is also important to take into consideration the fact that the central core is a relatively small – but very influential – part of the representation. The largest part of the social representation’s content belongs to the peripheral part(s). In the following, this larger, less determining part of the representation will be explained.

The Periphery

The peripheral elements are organized around the central core and they are in connection with it; this means that their presence, values and functions, are determined by the central core itself. These peripheral elements constitute the largest part of the representation; they are more in relation with the environment, and they are “living”, in a more concrete way than the central core. The periphery is in direct contact with the environment; hence, it gets, selects and evaluates the information concerning the social objects. These elements are also organized in a hierarchy; more precisely, their distance from the central core is different: the elements which are closer to the centre play a more important role concerning the definition of the representation’s meaning; the elements which are farther from the centre explain, illustrate or justify the meaning of the central core. The periphery operates as an interface between the environment and the central core. This messenger’s role has three main functions which are concretization, control, and defense (Abric, 1994a).

The peripheral components anchor the representation in the reality and render possible the conversion of an abstract representation into a concrete concept by the concretization; hence, the representation becomes available and transmittable. These components integrate the different situations’ aspects, in which the representation is formed, and the periphery connects the past to the present; therefore, they link the already formed representations to the forming representations. In sum, one of the most important functions of the periphery is to transform the abstract central core into something more concrete and understandable (Abric, 1994a, 2002).

Furthermore, According to Vergès and Bastounis (2001) periphery can be divided into two spheres: the first periphery concerns such elements which are closer to the central core and the secondary periphery includes elements which are farer from the central core. These authors used associative methods in order to distinguish these peripheral parts. The task of the
respondents was to write five associations that came into their mind spontaneously to the word of economy. In their concrete case such associations belonged to the central core which were mentioned by a high proportion of respondents and which were mentioned generally among the first words (low rank mean). Whereas first periphery contained such elements which had low frequency and low rank mean or high frequency and high rank mean. However, the second periphery contained such elements of the representations that have low frequency and high rank mean. On the basis of the associative method of Vergès Flament and Rouquette (2003) suggest that in this way periphery can be divided in three parts as well.

As we have seen, the central core is a rigid structure; it cannot react flexibly to the changes of the environment. Thanks to the periphery’s controlling function, the representation will be able to adjust to external changes; and, in this way the representation can develop. The transformation of a representation begins with the periphery which will gradually influence the more central structures. According to Flament (1994), the central core can only transform if there are some environmental changes, which are perceived as permanent and irreversible. When the environmental change is seen as a reversible process, the central core will not change, nevertheless the periphery might evolve (Abric, 1994a, 2002).

The defense function is closely connected to the controlling function. The principle of cognitive economy exists concerning social representations; in this case, it means that since for the creation of a new mechanism a lot of experience and energy is needed, it is crucial to protect the already constructed and existing representations. Because of these purposes, the central core of a representation is very resistant against the changes of the environment. But, if the central core has to change, in a short-term, it results in a lot of disturbances in the life of an individual and/or a group. The task of the periphery is to be a buffer between these environmental changes and the central core. The permanently presented and fundamental environmental changes first affect the periphery, and only later will they, maybe, affect the central core; and this is how the periphery defends the core from rash changes (Abric, 1994a).

A social representation is a duplex system

The central core and the periphery operate as a unified system; both of them possess the above-mentioned specific and complementary roles. The central system is deeply rooted into the historical, ideological and sociological context. It is directly attached to the value system and norms of a specific social group, and the other components of the representation are organized around it. It is a common ground, which is socially shared, and it assures the
homogeneity of the given-group by guiding the behavior of the individuals; this can seem to be controversial if they are analyzed one-by-one, but in sum it is coherent. The central core has a key role concerning the stability of the representation and its coherence; this part does not change in general, or if it changes, the process occurs slowly and only under strong environmental pressures. The core is relatively independent from actual environmental changes in which an individual uses or expresses her/his representations; hence, the representations are rooted into a more global historical and ideological context (Abric, 1994a). Around the central core, the peripheral system carries much more individual characteristics and it is more context-dependent. This peripheral system bridges the past’s personal experiences with the incoming new pieces of information. Its task is the personalization of the group’s commonly possessed central core. It defends the central system and facilitates the integration of new components in the central core, and therefore contributes to providing the representation’s heterogeneity. Consequently, it cannot be assumed that the peripheral system has a secondary role, but, on the contrary, it has a prime necessity concerning the anchoring of the representation into reality. By understanding the function of the central core and of the periphery, it can be concluded that the representations are, on the one hand, stable and rigid, but, on the other hand, they are various and flexible (Abric, 1994a).

After this part on the roles of the central core and the periphery, along with their relation one with the other, the structure of the items of the central core and the periphery, on the basis of their activation level will be summarized on the basis of Flament and Rouquette (2003). For them, it is clear that there are some more or less activated elements in the central core as well as in the periphery. In the case of the peripheral elements, the authors refer to overactivated elements and normal elements; an element can become over-activated under the effect of influencing messages or situational factors which will put more emphasis on one specific aspect of the periphery. Similarly to the periphery, there is a hierarchy in the central core, as it was presented in connection with the ideal group.

Doise’s organizing principles and Abric’s structural approach

There are alternative hypotheses concerning the structure of social representations. The basis of the debate derives from the question of the consensual nature of social representations. For Doise, Clémence and Lorenzi-Cioldi (1993), as a result of the process of objectification (by which the abstract information transforms into concrete knowledge, see later in detail), a figurative metaphoric meaning becomes shared, but not necessarily consensual for a given-
group. It means that the members of the community possess the same frame of reference, but in the same framework they can occupy different positions. Hence, researchers such as Doise et al. (1993), suppose that knowledge shared by people contain different, contrasting kinds of facets for a same social object. This theory is contrasting with Abric’s theory, in which the content of the social representation is organized around a central core.

**Social Representation, Practices and Behavior**

We have defined social representations at the beginning of this chapter. Now, let us expose how theorists conceptualize the idea of practice. In Jodelet’s definition (1991) of social representation we can see that social representations orient behavior. There are several questions in this field which are important to answer.

1. Do social representations really orient the behavior of an individual, a group, a community or a culture? How does it work?
2. Is it the representation which defines the behavior, or inversely the behavior which determines the representation, or are they inseparably coupled?
3. In which conditions behavioral aspects of social representations can appear?
4. How it is possible to observe and measure practices deriving from social representations in the laboratory?

**Social representations, practices and behavior – from Moscovici to Jodelet and Abric**

In the following section, an overview will be provided of the previous researches in the field. In Moscovici’s study on psychoanalysis, the author discusses the extent of the social nature of representations, i.e. the individual or collectivist possession of representations. For Moscovici, the most important is not, by all means, the ownership itself, but the origin of the representations, the agent that produced them. For Moscovici, representations are necessarily constructed by a community or a given-group. But, after the “whom” and “who” questions, there is one aspect which is more important, and that is to see the relationship between social representations and behavior: it is the “why”, or in other words, the function of the representation? With Moscovici’s words: “This function is specific to the extent that the representation contributes exclusively to the processes that shape social behavior and orient social communication.” (Moscovici, 1984, p. 30). More specifically, in the field of
Psychoanalysis, it means that “The concepts of psychical apparatus, repression and the unconscious were used by Freud to describe certain phenomena. The goal of their scientific formulation was to unveil the truth, to explain observable facts and to support therapy. When the same notions are used by someone who is interviewed in our survey, their objective is to determine behavior and, usually to communicate with someone else about a socially important theory, to describe the individual individuals to whom he relates by describing them as “repressed” or having “complexes”, or, finally to give those relations a political or ethical meaning.” (Moscovici, 2008, p. 31). Hence, for Moscovici, social representations, as global systems, have an impact on the individual’s behavior in an overall way; they give a frame of reference to the members of the community by which each one can define and describe herself/himself, and, therefore, they give reasons to behave in a certain way and not in another way. Moscovici, instead of specifying the relationship between the behavior and social representations, concentrated mostly on the different styles of communications and on the degree of these styles. Among the three styles, diffusion is supposed to give evident guidelines towards behavior; it does not define the way of how to behave. Propagation doesn’t aim at encouraging new behaviors, but provides a new meaning to the possibly happening behavior; it harmonizes the pre-existing norms to the new phenomenon (i.e. psychoanalysis), and it also produces meaning to the behavior. The third communication style is propaganda. Generally, it derives from an intergroup conflict, in which an object threatens the identity of the group or its basic ideologies; thus, it is generated in order to defend these values by, more or less explicitly, egging the readers or group members to behave in an opposing way (Moscovici, 1961/2008).

As we can see, Moscovici’s theory possesses a completely different point of view when compared to the reductionism of behaviorism. The conceptualization of behavior in Moscovici’s thesis is much more general than it is common in behaviorism. But, this is not the main difference between behaviorism (and partly social cognition) and the theory of social representations. In 1984, Moscovici describes social representations as independent variables and as direct explanatory stimuli. For Moscovici, behaviorism and the theory of social cognition conceptualize a small fragment of the exposed stimulus; moreover, both behaviorism and social cognition decontextualize this stimulus. For Moscovici, these theoretical frameworks do not take into consideration, in a sufficient degree, the fact that these stimuli are always embedded in a larger socially defined context. Hence, the pre-existing social representations, which are constructed during childhood, define on one hand which stimuli will be chosen from the wide array of environmental stimuli, and on the other
hand, they provide guidelines concerning future behavior. Hence, instead of the classical paradigm which states that the stimulus has an impact on the representation and later the representation will define the response (the behavior), we can conceptualize the representations in such a way that they have a crucial impact on the selection of stimuli and on the production of a response. These steps are inseparable; the interconnectedness of external word, the representations and the actions is more similar to a spider’s web than the standard stimulus-mind-response causal link. On the basis of the above-described argument, social representations are fundamental background factors. In the everyday situations, they define both the stimulus and the response; thus, it is not correct to over-simplify by stating that social representations are only a mediator (or black box) between the input and the output.

Following Moscovici’s way of thinking, several researches were carried out for puzzling out the complexity of the relationships between stimulus, behaviors and/or practices and the social representations. A milestone in this research project was the edited book of Abric (1994b) about social practices and representations. In his summary of researches, he assumes three main ways of interpretation of practices and social representations:

1. According to the first point of view the practices determine fundamentally the representations. In the following, we will show two different explanations about the cases when practices in fact determine the representations.
   a. In order to explain this point of view, he uses Beauvois and Joule’s (1981) argumentation which radicalizes Festinger’s (1957/2000) cognitive dissonance theory. According to their opinion, conflicts can emerge from contradictions between opinions and behaviors; and, the circumstances which come from society leave narrowed possibilities for behavior. The consequence is that people have to be submissive and behave in a determined manner; but, because of the contradiction between their opinions and their constrained behavior, they rationalize their conduct. These rationalizations will finally engender the representations. So, the individual, on the basis of Beauvois and Joule’s (1981) description, is mostly a socially constrained person who has to rationalize behavior because of restrictions; and, as a consequence of the rationalization, the individual constructs a belief system and representations (that is not necessarily a social representation). Hence, for Beauvois and Joule (1981) it is not the beliefs or the representations which determine the behavior, but the representations which are the consequences of the behavior’s rationalization.
b. The second example comes from the theory of social representations. For Flament (1989), a social representation can be changed if the altered environmental factors produce new practices; these new practices can influence the social representation. The most important characteristic in Flament’s (1989) theory concerns the reversibility of changes. If the environmental change is irreversible, like in Guimelli’s study about hunting (1989), the modification of the social representation will be profound; it will not just change the periphery, but also the central core. If the change were reversible, it would, in theory, only affect the peripheral parts, without fundamentally altering the representation. From our perspective, the interesting part concerns practices, as they are crucial mediators between the perceived changes of circumstances and the social representations. In Guimelli’s study, it is showed that, because of a disease which influenced the number of animals alive, hunters changed their social representations by the mediation of their hunting practices.

As we can see, in both Beauvois and Joule or Flament and Guimelli’s case, the situational factors and constraints have a great impact on the decisions of the participants; this is the most frequent case. However, there are situations in which we have more freedom to decide; in these occasions, we are not restricted, as such, by situational factors.

2. According to Abric (1994b), these mechanisms can be moderated and completed by three other important factors: culture, norms and values, and the imagined personality or character of social representations of the amateur scientist.

a. Cultural factors – similarly to Moscovici, Abric (1994b) emphasizes the temporal aspects of social representations. When he argues about the relevance of cultural dimensions, he refers to Grize, Vergès and Silem’s (1987) “cultural matrix of interpretation” concept. This matrix provides a culture dependent frame of reference of behaviors and knowledge. Both knowledge and practices are rooted in the collective memory and they are acquired during the process of socialization.

b. Norms and values – Beauvois and Joule (1981) mainly talk about the highly restricted cases, in which, in several occasions, individuals can decide between different choices. In these cases, individuals can behave according to their norms and values. However, values and norms can hardly appear in highly controlled experiments, the more natural the situation the stronger the effect of
the values and norms, and only then can values and norms become prescriptive as social representations are.

c. The factors which are in connection with the activity of the individual – Beauvois and Joule (1981) do not conceptualize their participants as amateur scientists who are looking for explanations; rather, they are people who are restricted by their environment, in a somewhat passive manner, thus, they are not active. However, the amateur scientist has anticipations, expectations; she/he can actively construct her/his reality in a social manner. Hence, this reality partly derives from her/his efforts and actions, which are produced towards the environment.

3. On the basis of the third point of view, social representations determine the practices. Abric (1994b) mentions several experiences in which the representation of the task or the partner, or the relationship between the two, has a measurable impact on the behavior (Abric, 1982, 1984, 1987). Abric (1987, 1994b), in his book on competition and cooperation, and in his final chapter on social representations and practices, mentions several experiences referring mainly – as Farr says – to the narrower sense of social representations. There will be several arguments in the chapter on competition concerning the weaknesses of game theory experimental paradigm that was cited and used in the above-mentioned references. Here, we just refer to two of the main points: the first is Moscovici’s second principle concerning the methods of observation. From our perspective, the purpose is not to manipulate artificially the representation of a task, a partner or a situation, with losing the pre-existing socially and culturally shared representations, but on the contrary, to let the social representations come under the scope of our investigation. The second point concerns Abric’s (1994b) hypothesis, which claims that social representations will have a determining power in situations in which a given person can autonomously decide, and not because the constraints of the given situations. That is why, in the following section, we will focus on examples from the literature on social representation in which researchers found a relationship between practices or behaviors and social representations, in natural settings, and in cases in which the targets of the observations had real free choices.

The best example, in this case, comes from Jodelet (1989) who carried out a research on the social representation of mental health problems, in Ainay-le-Château’s Family Colonies. She used various research methods: observation, interviews and
questionnaires, in order to describe, at a refined level, how the members of this relatively small community perceive mentally ill villagers, with whom they have everyday contacts. She illustrates that the representation and behaviors are densely intertwined, and that there is a definitive overlap between the two. Thanks to the observational data, Jodelet found some practices that were not verbally expressed, but which were in very close association with the social representations. Locals’ behavior, in the streets, celebrations, shops, cafés, at home etc., was in strong connection with their representations of “insane”. The treatment of the distance in public spaces, the treatment of their everyday items, the avoidance of body contact, are all aspects of practices which were used towards mentally ill persons. The villagers kept the distance from patients with whom they spend their days. Jodelet (1989) describes this phenomenon as a certain kind of magical fear of contagion. The locals denied the medical nature of infection; for them, it is not similar to something like tuberculosis... However, they experienced that the mentally ill persons leave the mark of their inherent characteristics of illness on everything with which they get in contact with. That is why, for example, mentally ill persons had to do their dishes themselves, and their clothes were washed separately from the other members of the family. However, locals behaved differently towards the mentally ill persons on the basis of their categorization of illness. On the one hand, there were (good) mentally ill persons who had cerebral disorder (mental handicap), and the other hand, some (bad) who suffered from neurosis. Their representations determined the behavior towards the mentally ill persons: for example, a “good” one could afford more activities, i.e. sitting at the table. But, these kinds of relations were impossible for the persons who suffered from neurosis, paranoia, and psychosis.... This dimension was the cut-point if they saw a person as cerebrally ill, they behaved absolutely differently, than if they categorized the person mentally ill.

In sum, in the above-mentioned classification referring to Beauvois, Joule, Flament and Guimelli (cf. Abric, 1994b) it is clear that, if situational factors or external circumstances restraint the practices, they can have a modulating effect on the social representations; hence, these factors can modify the representation. On the other hand, on the basis of Jodelet’s study, we can note that it is important to see the possible relationships between behavior and verbal expressions, if we want to know how social representations work. Her results show that practices, and different types of behaviors, can be an inherent part of social representations; there are parts of the representations which are not necessarily accessible verbally, but which
can reflect on the socially shared - even if hidden - side of representations. So, it can be concluded – on the basis of Abric (1994b), Jodelet (1989) and Moscovici (1984) – that the most important point is not to discharge social representations, practices and discourses, but instead, to apprehend it as a system, and learn as much as possible about how it works in real social groups and communities.

In the following part a debate will be presented in order to provide useful guidelines for psychologists who would like to carry out researches which are oriented towards the exploration of the relationship between practices and social representations.

Social representations and Valsiner’s theory of enablement – a recent debate in the Papers on Social Representations

A recent article of Valsiner’s (2003a) theory of enablement evoked a debate in this field. Firstly this theory will be presented, then critiques from Papers on Social Representations (2003) will be presented, followed by Valsiner’s response to these critiques which will be analyzed.

Valsiner claims the following theory: in a given point of time, an individual has to adapt as much as possible to the uncertain near future. Cultural tools and instruments are used during the process of adaptation; these tools appear as signs which imply a certain defined response. For Valsiner (2003a) social representations help to create such constraining and guiding signs. With Valsiner’s own words “social representations belong to the category of pre-adaptational means – semiotic mediating devices – for regulating human conduct” (Valsiner, 2003a, p. 2). Hence, social representations can be interpreted as macro-level cultural guidelines, as complex or semiotic mediators which help the individual’s decisions in the present to adapt to future events. Valsiner refers to the social representations as processes, but, the focus of his investigation reflects on the dynamic nature of social representations. Social representations can be interpreted as useful devices deriving from the past in the process of adaptation, and which have at least two functions. On the one hand, they regulate or constrain immediate experience, and on the other hand, they play an important role in terms of their self-maintenance and self-construction. The regulation of the immediate experience, in the case of a complex task, can be presented in the form of an inner dialogue. By these guidelines or constraints (see later the debate) social representations have an impact on the particular feelings, thoughts and behavior. Moreover, not only inner dialogues, but also
communication between partners and generations play an important role in the process of construction of signs. However, the guiding tool of sign construction (social representations) won’t be rigid; rather, they will be characterized by certain measures of heterogeneity and adaptability. In this article, Valsiner interprets social representations as signs which help individuals to cope with uncertain future events, and, in a way, they direct behaviors.

Valsiner (2003a) described an experiment in which social representations, due to the different cultural heritages, induce different dialogues in a dilemma situation and result in different behaviors. This experiment was carried out by Capezza (2002). In this experiment, American and Estonian university students were asked to shoot (but shooting was not compulsory) different images in a video game setting; then, they verbally reported their thoughts and feelings about their acts. They were asked to speak about the image and their experiences concerning the task (shooting). During this task, in the dialogues, they exchanged about their socially shared memories. The differences were visible between American and Estonian participant’s dialogues. For example, American participants talked about shooting on an image of Ku-Klux-Klan members (later KKK); this appeared to be in the dimension of “he deserves it” and/or “he is just another human being”, while Estonians did not have any inner dialogue or debate on the same act because of their different historical framework. This difference can be explained by the two cultures different anchoring of the image of KKK anchored differently; Estonians said, for example, the following: “he is a hangman who is doing his job, why should I kill him”. For Valsiner, this is a good demonstration of how pre-existing social representations can constrain or guide decision-making, and finally the behavior. In the case of the American students, if somebody automatically thinks that a KKK member is a “horrible human being” and he deserves to be killed, it is constrained by his/her historical education, which results in the thinking that this person being “just another human being”. Hence, because of the participants’ different cultural heritage, the dilemmas manifested dissimilarly through their dialogue reflecting the constraining social representations. Americans described the above-mentioned dilemma, concerning KKK images and shooting, while among Estonians, in this case, there was no dilemma because of their different cultural background which contains different social representation.

Several researchers commented Valsiner’s article. The first remarks came from Wagner (2003), who opposes Valsiner in two points; therefore, Wagner’s point of view will be presented, and then we will describe the two critiques. For Wagner, Valsiner’s enablement theory is a ‘stimulating thought’ and it ‘is a step towards understanding how the collective level of social representations articulates with individual acting and reasoning’. But, he
criticized the interpretation of the above-mentioned experiment (Capezza, 2002) that Valsiner cited in order to demonstrate his theory concerning the mechanism of social representations’ effect on individual practices. For Wagner, the different dilemmas and the difference in behavior do not evidently derive from different social representations. For him, in several cases people have no clue of why they behave in a certain way; nevertheless they provide a justification. His example is the following: “I have no idea why I bought it” or “Well, it just happened that I bought this sweater, it doesn’t mean anything”, you probably will doubt the mental state of your friend. Saying that she bought the sweater because of thinking something or wanting it is quite a different thing” (Wagner, 2003, p. 3). In short, for Wagner, the above-mentioned dilemmas’ justifications are similar to the justification of a sweater purchase. More precisely, what we know from the experiment does not prove the enabling nature of social representations, but it gives an example of how participants can rationalize their behavior; and in this case, the measured social representations are not the causes, but the consequences of the behavior. Moreover, participants have to make their private thoughts public to the experimenter, which may result in a publicity bias, which can, in itself, induce the process of rationalization.

Wagner’s other critique about Valsiner enabling theory concerns the inner dialogues. For Valsiner, social representations can be interpreted as signs that were created collectively in the past in order to resolve problems. According to Valsiner, the individual (under the constraints of social representations) “privately negotiates his or her adaptation” before the decision. Wagner’s argument touches this point: a. for him, representations about logically complementary issues (for example about a KKK member) exist only as an exception and not as a rule (this critique will be interesting from the point of view of themata, see later); b. Valsiner’s dilemmas are discussed privately concerning his immediate future’s decision.

According to the first point indeed, social representations, in several cases, have one central core instead of a dual-core. But, as we have seen, on the basis of Moscovici and Vignaux (1994) and Markovà (2000), the themata, as a superior category of the social representations, can be organized around dichotomies, such as in the case of KKK. Moreover, such dichotomies, as we have seen in Valsiner’s experiment, are much prevalent in the Northern American social cognition theories, such as automatic and controlled processes in the field of stereotypes and attitudes (Bargh, 2006; Banaji, 2003; Dovidio & Gaertner, 2004). In Valsiner’s experiment, the dichotomy existed among Americans, but the dichotomy did not exist in the same way among Estonians.

According Wagner’s second critique of these rationalizing inner dilemmas, which lead to particular decisions, hardly become such organized complex which can be communicated in long term such as across generations. Furthermore, for Wagner “…any representations comprise the a-
priori reason and the a-posteriori rationalization of behavior, making behavior reasoned action.” (Wagner, 2003a, p. 5). For Wagner, in the case of Valsiner, it is hard to distinguish the reason and the rationalization of the behavior. In the experiments, the participants’ verbal reports can refer both to reasons and to rationalizations. This point is close to Jodelet’s argument which says that “social representations are only conceivable as holistic units encompassing mental content and overt behavior” (Wagner, 2003, p. 5). We can interpret Jodelet’s idea as implying that social representations contain reasons of behavior, the behavior itself and the rationalization of the behaviors.

Wagner, in a former article (1992), demonstrated that social representations couldn’t be regarded as explanations of behaviors; rather, they could be interpreted as description of the given behavior. Hence, on one hand social representations cannot be interpreted as independent or explanatory variables, but on the other hand, for him, the relationship between behavior and representations cannot be characterized by a mutual interdependence between the situations/stimulus and response, as Moscovici (1984) described it. With Wagner’s own words, the relationship between behavior and representation can be described in the following way: “Therefore, any experiment or empirical observation showing that mental content and behavior are in fact correlated, is not a proof, but simply an illustration or a more or less typical example, a ‘Beispielfall’ of this relationship between mental content and behavior. Behavior is part and parcel of the representation and cannot be separated conceptually.” (Wagner, 1992, p. 10). These ideas can be interpreted as another connection between Wagner and Jodelet. From Jodelet, we gathered that the locals, in Ainay-le-Chateau, did not explicitly talk about the infectious nature of madness, but they behaved in such a way; moreover, they have different ‘rationalizations’ explaining why they acted that way. The social representations were unconscious from the cognitive level, but they transpired in the behavior. Hence, causes, behaviors and rationalizations are intertwined, and they can be interpreted as a whole, and even as a social representation itself. In general, we have to agree with Abric, who claimed that if the situation constrains the behavior in this case probably the practices will define the representation; but, when an individual is not constrained by situational factors social representations will drive his behavior. In the previously described experiment, the problem is the following: we do not know if social desirability bias – such as a situational factor – influences the verbal reports (Wagner), nor if a verbal report is driven by the culturally inherited social representation of KKK (Valsiner). The lesson from Wagner’s analysis is that social desirability bias can be a powerful, even if sometimes invisible, biasing situational variable, which has to be controlled,
otherwise it can hide the appearance of social representations and we can measure the effect of an influential situational, biasing factor.

The second main critique of Valsiner’s theory was written by Bertacco who considers the theory of social representations as a useful “approach to social behavior set up to overcome both reductionism and explanatory fragmentation in social psychology” (Bertacco, 2003, p. 1). For him, the theory of social representation seems to stand for an anti-fragmentation perspective, in which behavior can be explained by “super network of cultural knowledge” (2003, p. 4). With the example of shooting somebody as it was the case in Valsiner’s experiment, the question arises: Which social representation will guide the behavior, “is it the social representation of murder, human justice, guilt, human rights or something else?” (Bertacco, 2003, p. 4). In sum, the weak point, in this case, is the distance between a specific behavior and the guiding principles, which could be a ‘super category’ or a ‘super dichotomy’; moreover, for Bertacco, concerning the methodology, it is not the best way to find a posteriori a social representation by explaining the behavior. According to Bertacco, scientists in the field of social representations “must somehow prove the relationship between social representations and both group and individual behaviors” (2003, p. 7). On the basis of his opinion, it is necessary to investigate this link with empirical methods; more precisely, the first step is to examine qualitatively the social representations in the given field (for example shooting) and in different cultures (Estonia and USA). On the basis of this, it is possible to see the main categories that different groups use in order to explain a same social object (shooting in this case). In the second step, after this qualitative analysis, researchers can create a decision-making-task in which these explanatory categories can appear; hence, it will be possible to state predictions concerning the dominant behavior among the members of the given culture. Moreover, it is important to give them a task in which they have more than two possibilities to choose (shoot, don’t shoot) as in everyday-life. For him, beyond the micro-level of social representation’s analysis, the other task for researchers, who are working in this field, is to explore the possible reactions linked to the macro-societal changes in different cultures. For the author, the arrival of Euro in different countries, and the acceptance of different cultures, is a good example for this kind of researches.

From my point of view, qualitative research in the social representations can provide a wide frame of reference in which the main cultural differences can be seen for a given object. This level of analysis can reveal the main similarities between different cultures’ themata,
guiding principles or central cores of the representations. Later, it is possible to choose topics and fields for which in-depth quantitative or an experimental approach can be carried out.

There is one thing that I would like to complement Bertacco’s ideas (2003). For example an association task can be implemented as a qualitative method, in order to explore different cultures, and on the basis of its results it is possible to find out several cultural differences. In the next step it is important to pick up the best possible among the myriad of possible aspects of the social representations that is close to the central core or in the central core of at least one of the examined cultures’ results, b. this aspect or field should be close to the everyday experiences of the examined groups. Furthermore, this aspect has to refer to a practical aspect, because in this case the given topic can be more easily the subject of an experimental analysis in the behavioral level.

As far as I’m concerned, referring to the experiment cited by Valsiner, it is hard to find an aspect in the social representation of shooting which is close to the American or Estonian students’ everyday practices. Most of them are not used to shoot anything, some of them might play first-person shooter computer game, but the majority of them are not used to shoot neither stigmatized historical personalities, nor KKK members, nor hangmen. So, finally, I think, on the basis of this debate I. Valsiner was correct to find a topic in which culturally inherited social representations showed up, but the basic goals are, first to find an object which is relevant to the given-group, and second to find an aspect of their social representations which can be revealed via the inner dialogues and the behavior. Thus, the examined field a. has to be close to the participant’s everyday practices, and b. has to play a relatively central role in their representation. Moreover, in accordance with Bertacco and Abric (1994b), we have to know which possible representations and situational factor may play a role during the behavioral manifestation of a given task.

The best constellation is if we can find two different central cores in two different cultures’ representation on a given-object and if one central core contains an element which is closely related to the practices, while the others would not contain this element in the central core. In this case, the goal is the realization of an experiment, which is similar to an everyday situation where wide possibilities of practices can appear. Moreover, the control of the most probable situational variables plays crucial importance. In this way probably we can get closer to the practice – social representation relationship. And finally due to the high ecological validity of experiment can allow the appearance of pre-existing social representations.

Hence, in this case, the goal is not the manipulation of such situational or interpersonal factors, such as the representation of partner or the task (Abric, 1987). And, it then might
become possible to fight against the “weak sense of social” critique that Farr formulated in 1984. He states that, in well-controlled laboratory studies it is the atmosphere of laboratory that will restrict the conceptualization of tasks and of the given situation, therefore the laboratory context does not allow the appearance of social representations in a “stronger sense”. Farr’s (1984) critique on the weak sense of social can be true for the researches of the School of Aix-en-Provence in the 70’s and 80’s (Abric, 1971; Abric, 1976; Abric, 1987; Codol, 1984; Faucheux & Moscovici, 1968). However, if experimenters take into consideration the above-mentioned points regarding the realization of an experiment within the framework of social representations, it will be more likely that they will be able to create the appropriate conditions of the laboratory in which – with Farr’s (1984) words – not just the “weak sense of social”, but the “strong sense of social” representation can appear.

Valsiner’s third reviewer was Nebe (2003), who has the strictest critique towards Valsiner’s theory of enablement. For her, Valsiner’s theory can contribute to the deeper understanding of the intrapersonal aspects of how social representations orient the practices. But, she criticized several aspects of Valsiner’s theory. The first main point concerns the fact that the theory of enablement only explains at the level of the individual, and does not justify the social and relational nature of social representations. The second aspect concerns the enabing constraining dimension - for her, the theory of enablement mainly constrains the people’s way of thinking and behavior, instead of constructively enabling them to do something. With the third critique, she stresses the double nature of social representations which are not only the tools of the ongoing constructions but also the tools of the constructions itself. According to the fourth argument, for her, Valsiner is controversial when he claims that, on one hand the products of social construction and representation are relatively stable, while on the other hand the tools which carry out the construction are heterogeneous.

Finally, in Nebe’s (2003) eye, Valsiner, with the “shooting experiment” implicitly refers to the concept of themata (Moscovici, 1993; Moscovici & Vignaux, 1994; Markovà, 2000) which is –in this case – established around a general dichotomy and which has an opposing nuclei, and a stable nucleus vs. flexible periphery of the representations. Nebe’s critiques on Valsiner can be summed up in six points: 1. For him, Valsiner concentrates on the structure of the above mentioned social tools and products, and at the same time, he does not take into consideration the social relational nature of representing; 2. Valsiner’s enabling theory could be called with an opposite expression from the original one: a structural constraining theory; 3. he fails to distinguish the tools and the products of constructions – he
calls both social representation -his logic is circular – which implies that, through the process of social representations we create social representations--; 4. he does not mention the possibility of when and how the individual can reject the constraining signs or social representations, dominance of constraining power, and lack of personal liberty; 5. he “clearly clashes with the ‘societal’ social psychology” (Nebe, 2003, pp. 4), because he is concentrating on intra-psychological flow of experiences; 6. his theory concentrates on “how social get into the individual’s mind” (Nebe, 2003, pp. 4.), but not on how societal representations are constructed. According to Nebe, both the intra-individual adaptation in temporal framework, and the social level of sign use are “very convincing if looked in isolation” (Nebe, 2003, p. 4.).

Fortunately, Valsiner responded to most of these critiques in a reply article which will be presented after the last comment on his enablement theory by Magioglou (2003). Magioglou (2003) had another series of remarks on Valsiner’s article. She reflects on both Valsiner’s paper and Wagner’s paper, from the perspective of political psychology, which for the author goes beyond the social level and can contribute to a “societal” political psychology. She puts emphasis on two points: 1. the theory of enablement “goes beyond the institutional dimension and focuses on the ways individuals, groups and collectivities construct and deal with conflicts, and decide about their common future”, 2. it focuses on everyday people. From her perspective, it is not necessary to separate “internal dialogue” from “collective controversy” – referring to Wagner’s cause - consequence (rationalization) critique – the internal dialogues frequently derives from societal controversies. She interprets this kind of methodological problem as a dilemma in which a certain degree of freedom is allowed and it is up to the individuals to choose and react.

After this series of comments and critiques, which raised several questions concerning social representations and behavior, Valsiner (2003b) responded to the above-mentioned authors. Valsiner’s article title deals with the research of the theory-method link. He refers to the theory of enablement as a possible theoretical framework that can create connections between general assumptions and empirical research, which puts in the focus the heuristic value of the research instead of the overvaluation of methodological ‘rightness’. He also sees the theory of social representation in this respect. In his reply, he sacrifices a significant part of the fragmentation of psychology. He claims that the concept of social representation can be a good attempt to make a synthesis between small theories; however, it is important to conceptualize social representations as a dynamic process, which takes into account the adaptation to the different flow of events. Taking into consideration this aspect of social
representations, they become collective-cultural complexes, which give directions to further flow of experiences; hence, it enables the individual to attain new adaptations. Both Bertacco and Nede mentioned the problems concerning enabling social representations’ level of examination. More precisely, they criticized the relationship between intra-individual and inter-individual levels. According to Nede, Valsiner’s theory is individualistic; on his side, Bertacco wonders whether dynamic social representations work at the intra- or inter-individual level. Valsiner’s answer is the following: social representations operate “in-between the intra-individual and inter-individual levels” (Valsiner, 2003b, p. 3). For him, the two levels constrain each other mutually. According to Valsiner, the question concerning which level they work, has less importance than the question of ‘how they function’ together. Concerning the enabling-constraining question, Valsiner wrote that from a static and non-constructionist perspective, Nebe is right – constraints imprison the organism. However, it is not true from a dynamic and constructivist perspective in which the individual is an active agent who re- and co-constructs his representations, in the timeline, taking into account the different settings which narrows down the possible ways to create future social representations. Valsiner uses the concept of “freedom for” doing something instead of “freedom from”, which emphasizes the constraining side of settings in which the individual is. For Valsiner, each individual is in the “unrepeatable flow of experiencing in order to regulate such experiencing moving towards the future” (Valsiner, 2003b, p. 4); from this point of view, the range of possible actions and constructions decrease. For Valsiner, “freedom for” means the limitation of possible further social representations. In sum, from this dynamic perspective, the theory of enablement cannot simply be interpreted as a constraining theory, but as a theory which is supposed to explain how social representations define future acts and construction of further social representation.

Concerning the role of communication, Valsiner claims that inter-individual (parent-child, between peers, in a group) discourses ‘are used to delimit the thinking, feeling, and acting of others’. The institutions, by creating intra-individual dialogues or communication between individuals, can have a similar constraining impact on the individual. The power of this effect depends on the culture. However, the above-mentioned guidelines normally do not have an irresistible impact on the individual who normally possesses a relative psychological autonomy.

Valsiner also introduces the concept of “sharing” which derives from the individual who shares ideas or experiences with others. In culturally constructed social representations sharing the frame of reference has a crucial importance. In the framework of enablement
sharing is interpreted as a dialogical-event, which makes social representation functional by interpreting it as a semiotic mediating-device. This dialogue exists between the individual and the “personal history” or “collective-cultural setting”. As a consequence of this act, the social representation, which can be interpreted as a complex meaning, will be reinterpreted in a new context. An individual, who is constantly in the process of meaning-making, reconstructs the representation. For Wagner, this micro level of analysis has less importance, because this kind of reconstruction has a small impact on the representation itself; hence, the focus should be put on the macrogenetic processes of meaning-making. However, for Valsiner the stability of macro-social phenomena is a dynamic process, which depends on the cyclical appearance of social representations in the communication. Thus, even if the two systems are separated a similar methodology can be used for both the micro and the macro processes.

Finally, Valsiner’s response to Nebe’s critiques on the tautological arguments on social representations (through the process of social representations groups create social representations) is, that it is not the point to follow the rules of formal logics, but on the contrary, the tautology can become functional, if on one hand the action system – the process of social representation and its meaning – on the other hand the results, as a social representations “are set into a mutually equilibrating relationship” (Valsiner, 2003b, p. 6). On the basis of the previous researches concerning the impact of the social representations on the behavior, several conclusions can be made.

For Moscovici (1984/2002), both the stimulus and the behavior (or practice) have to be interpreted under the umbrella of the social representations, which provides a common frame of reference for the interpretation of the stimulus and the possible behaviors. According to him, social representation is the source of the behavior and the stimulus, as well. On the basis of Abric’s summary (1994b), the relationship between practices and representations has three possible ways of showing up: first, it is possible that practices determine the representations, but it is also possible that representations determine the practices; moreover, it is possible that there is an interplay between the two, which is deeply influenced by specific norms and cultural impacts. The nature of the interplay is the most interesting part in the field. Behaviors or practices can reflect on the unconscious, untold parts of the social representations (Jodelet, 1989); they can be the cause of the rationalization which can form social representations (Flament, 1994); they can be the consequences of environmental changes which have an impact on the representations (Guimelli, 1999); they can be the consequence of the constraining (see Nede’s criticism) or enabling (Valsiner, 2003a) activity
or pre-adaptation of the social representations; they can be a description, a manifesting form of the social representations (Jodelet, 1989; Wagner, 1992, 2003).

According to Abric (1994b), the impact of the social representation on practices depends mainly on the nature of the situation in which the possible manifestation of the representation takes place. Three situational aspects need to be taken into account: 1. the participant in an experiment cannot be constrained strictly by the situation itself, which means that this individual is autonomous concerning his/her decisions, 2. the emotional load is high 3. the marks or signs of the relevant collective memory which are in connection with the participants’ identity are easily recognizable.

In the following part, we present the above core notions of the mentioned models in an integrative framework (see Figure 2). On the basis of my interpretation, the previously mentioned authors who deal with social representations and practices can be categorized on the basis of their interpretation of the interconnectedness of representations and practices. Jodelet (1989) and Wagner (1992) emphasizes that practices cannot be explained by social representations, rather they are only a certain kind of manifestation of the social representations. The other authors separate the practices from the representations. For Moscovici (1984/2002), social representations define the interpretation of the stimulus and the possible responses; hence, here, in my view, the dominance of the social representations over the practices becomes more prevalent. Abric (1994b) has to be mentioned because he call the attention the transmitter role of the norms and the culture between representations and practices, moreover his largest contribution is the description of the optimal situational circumstances where social representations can have direct impact on practices. Finally, Valsiner’s theory of enablement (2003a, 2003b) has to be mentioned where social representations help the individual in the adaptation process by providing him collectively constructed guidelines to the future behaviors. On the other hand Flament points out two mechanisms which explain how and why practices can have impact on social representations: the first concerns the above described conflicting opinions and practices which as a result of a dissonance reduction solution changes the social representations; the second refers to the changing environment which results the change of the practices and finally the changes of the representations.

At this point, we have to say some words about how the above mentioned researchers interpreted the environment: concerning the second point it is crucial to distinguish the reversible and irreversible changes of the environment which changes the practices, and by the practices the social representations, firstly in the case of reversible change – the periphery,
later in the case of irreversible change the central core. Moscovici (1961/2008), before the reversible-irreversible distinction put an emphasis on the changes of the physical and social environment, where something new and something uncertain appears which motivate the given community to communicate on the new phenomenon. For Moscovici, the motivation to reduce incertitude in a collective way was the engine of the social representation creation. Finally, for Valsiner (2003a, 2003b) social representations are collectively created and very useful tools in the adaptation to the changing environment.

My goal here is not to find the best possible model, but, it is to study as many of the aspects involved in social representations as possible. When we presented the definitions of social representations, we have seen that a social representation is a holistic concept, which has numerous facets; hence, we presume that there should not be one single explanatory model which can clarify every possible connection between the representations and the practices or behavior (if we decide to separate the two concepts).

However, we would like to take into consideration (1) Moscovici’s guiding principles, (2) different levels of analysis on social representations (3) different conceptualizations regarding the relationship between social representations and practices, (4) the debate on Valsiner’s theory of enablement (5) methodological notes of Farr, and carry out a research in

Figure 2. The main theoretical approaches concerning social representations and practices or behaviors in a common frame of reference
which social representation of competition and fraud of Hungarian and French economics students and their related behavior becomes measurable. In the following we will shortly demonstrates previous researches related to the social representation of fraud.

**Previous studies concerning competition and fraud within the framework of social representations**

**Social representations of competition**

From Faucheux (1976) and Moscovici’ (1968), the first overarching works on competition, within the theory of social representations, were carried out by Abric (1970, 1971, 1972, 1987). As it was described above, when Doise’s levels of observation (1994) were described, Abric used the prisoners’ dilemma as a methodological paradigm; he demonstrated the crucial impact of the representations on the decision-making process and finally on behavior. He systematically manipulated the representations of his participants by changing a. the image of partner (machine vs. human, low and high social status), b. the representation about the partner’s behavior (rigid vs. adaptive strategy), and c. the framing of the situation (gambling, strike, etc.). In each manipulation, he proposed the same experimental condition considering the gains and losses were previously settled. Nevertheless, the manipulated variables significantly changed the behavior produced. In sum, for Abric it is important to keep in mind that both cooperative and competitive behavior depend on several factors, some of them seem to be more important (but not definitive) such as the reactivity and the representation of the partner or of the task. But, it is important to keep in mind that the above-mentioned representations are reconstructed in a given-context, in which other factors, for example the cultural impact, can also become predominant.

The first cross-cultural study in the field of competition, which was criticized by Faucheux (1976) from the perspective of social representations, was carried out by McClintock and McNeel (1966). This research used the classical prisoner’s dilemma in which, after their decision was made, American and Belgian participants received two kinds of feed-back about their performance. In the first condition, they got feed back only based on their own points (single), whereas, in the second condition, they got feed-back based both their own points, and on the partner’s points (double). McClintock and McNeel (1966) expected that, in the double condition, participants would be more competitive. Unexpectedly, in that condition, the Belgian participants were clearly more competitive than the American
ones, even if McClintock and McNeel carried out the research with two American groups because of the counterintuitive results. In order to explain this effect, the authors asked the participants’ preferences and reasons for their decisions. In Faucheux’ interpretation he wrote that “Belgian subjects provided a competitive reason for a competitive choice, such as ‘to keep the lead’ or ‘to catch up’, whereas Americans were more likely to justify a competitive gain with an ‘own gain’ reason, to ‘get as many points as possible for myself’” (Faucheux, 1976, p. 284). Faucheux’ alternative analysis of McClintock’s results is interesting in our topic in several respects. Firstly, Faucheux criticized the concept of competition used by McClintock and McCneal because they did not distinguish ‘the catch up’ from the ‘own gain’ competitions. For Faucheux, the latest can be interpreted mainly as a competition. For me, this distinction, or pattern, is in itself interesting, since it may reflect different aspects of the concept of competition, in the different cultures. Secondly, it is not only the behavior which is interesting in these experiments, but the pattern of the behaviors as well as the rationalizations, motivations, reasons, or in sum, the implicit theories that lay behind the decisions. Fülöp (2002) demonstrated that game theory paradigm produced contradictory results in the field of cross-cultural competition research when only the manifest behaviours (competitive vs. cooperative decisions) were in the focus of the experiments. Fülöp’s (2002) most pertinent example refers to two comparative studies in the field of competition, using a game theory dilemma paradigm between Indians and Canadians. Firstly, Carment (1974) found Indians to be more competitive, but, in the same year, Alcock (1974) found that the Canadian participants appeared to be more competitive than the Indian participants. Therefore, game theory-based prisoner’s dilemma competitive experimental methods very probably are not the best possible ways in the exploration of cross-cultural differences in the field of competition.

Summing up the main messages about the different cultures’ social representation of competition up to this point: a. according to Abric, using the prisoners’ dilemma emphasis has to be put on the representation of the game itself, the partner and the situation itself; b. for Faucheux, it is crucial to see the different motivations behind competition, behind the decisions in a cross-cultural comparison; c. finally, for Fülöp, the prisoner’s dilemma does not seem to be the best tool, in order to discover the complex and relevant differences between different cultures’ representation of competition.

Here, we have to return to Doise’s (1984) description of the different level of explanations in the field of social representation. Abric’s experiments demonstrate the second level in this categorization which reflects the inter-individual, intra situational level, in which
the higher levels, i.e. societal and ideological dimensions, can hardly be penetrated. The main cause of the blockage of these dimensions can be found in the nature of the method used. The major problem is connected to the paradigm which only allows very few possible responses/practices (competitive decision vs. cooperative decision) of the above mentioned diverse competitive motivations. In such circumstances complex characteristics or implicit theories which embody the competition in different culture can not appear in experimental settings. Thus this method leaves a very constrained possibility for the presence of the natural behavior, discourses, hence to the societal or ideological levels. Moreover, it is important to be aware of the fact that Abric demonstrated in his study that such situational factors, as the representation of the rival or the task, can have a fundamental impact on the competitive or cooperative responses. Hence, the goal is to find possible cultural differences in qualitative, observatory studies rather than to prove their presence in an experimental setting, in which the different cultures’ competitive practices and representations are so much intertwined and complex, that there is not enough space to appear, unless the impact of the possible situational factors is minimized.

However, before the presentation of an alternative research project it is important to explore the possible cultural differences which can appear in experimental settings too. Concerning these differences, the first step was analyzed in Roland-Lévy, Fülöp and Berkics’s (2009) previous work, in which they examined high school students’ social representation of competition. This study showed that, despite the different societal-political backgrounds, the 16-18-year-old high-school students’ social representation of competition does not fundamentally differ in both countries. On the basis of the spontaneously associated words on competition, victory and sport seemed to be most central; hence, on the basis of the associations, there were no visible difference between the two groups. Concerning attitudes, French students moderately like to compete; it is important for them to have a good time, but also to perform as well as they can; Hungarian students have much more positive attitudes towards competition. Moreover, for French students, the efforts appeared to be more important than the result, whereas, Hungarians concentrated more on the results, than on the way which lead to the goals, as efforts. Furthermore, French students prefer situations in which there is less competition, especially when it is presented to be in their interpersonal life; this is slightly different when competition is occurring in the economic context. For the Hungarians, the opposite was true: they preferred the interpersonal competition, and not the economic one. However, independently of their interpersonal or economic preferences, according to both groups, competition is perceived as rarely resolve economic problems.
The second interesting result referred to the importance of the efforts in connection to the results of the competition. These differences can be explained as cultural differences, which are the result of dissimilar socialization of Hungarian and French high-school students. In the following, the possible explanations will only be presented briefly, because in a later part of this work, the cultural differences will be presented in a more detailed manner.

On the basis of several studies carried out by Fülöp and her colleagues, Hungarian businessmen (Fülöp & Orosz, 2006), high-school students (Fülöp, 1999a; Fülöp & Berkics, 2002a, 2002b) and teachers’ (Fülöp, 2001; Fülöp, Davies, Berkics, Hutchings & Ross, 2004) perception of competition in the economic field contained several negative aspects, such as immorality, cruelty, aggression, etc. During the past 20 years, in France, there was no similar deep economic change that left space for unregulated economic competition, in which immoral strategies could gain so much space. This can be one of the reasons why Hungarians perceive more negatively the economic competition. Concerning the more negatively evaluated interpersonal competition among French high-school students, Fauconnier (2005) gives insight, as he describes an exceedingly intense competition among the members of this age group in order to obtain the best possible grades at school, in order to be able to enter higher education. The difference concerning the less importance of efforts in a competitive process can be based on the notions towards the perception of success in Hungary. In 1998, a representative study of the Hungarian Gallup Institute (Gallup, 1998) showed that according to 77% of the respondents, success depends on relations and favoritism; moreover, 76% of them thought the same think about wangling, pushing and unscrupulousness; however, they were only 52% who claimed the same thing about hard work and efforts. I did not find any corresponding studies in France, but these results fits well to the above-mentioned cultural differences in which Hungarian students evaluated as less important the role that effort plays in a competitive process, in comparison with the results.

The mentioned study shows potential dimensions that can influence the decisions in a competitive task. The above-described differences – even if they do not seem to be fundamental – can change the interpretation of the task, the perception of the rival and the understanding of the process of competition in an experimental setting which leaves free ways to different expressions of the dissimilar social representations. Here, I would like to turn back to Bertacco’s argument (2003), in which he emphasized the importance of having explorative qualitative studies prior to the experimental or behavior level analysis. Hence, in the case of a possible Hungarian-French comparative experimental research, it is crucial to take into account the differences which were found by Roland-Lévy, Fülöp and Berkics.
(2009) during the planning of the experimental settings. Moreover, it can be fruitful to carry out several more exploratory studies which can reflect further more refined differences between the two cultures.

**Social representations on fraud**

I did not find previous works that examined social representation of fraud. However, previous studies were carried out in the field of social representation regarding tax-behavior. According to the Longman Business English Dictionary (2007) fraud can be defined as “*a method of illegality getting money from a person or organization, often using clever and complicated methods.*” (p. 192). One of the examples that this dictionary provides explicitly refers to tax frauds. Therefore, tax frauds such as tax evasion can be interpreted as a specific form of fraud.

In the following on the basis of Kirchler’s (2007) integrative work I would like to borrow guidelines how social representation of fraud can be interpreted within the framework of social representation. As it will be presented, Kirchler’s (2007) work shaped the course for researchers in the field of social representations by showing how it is possible to “*bridge individual and social*” in a specific field such as representations and decisions on taxes. Kirchler (2007), in his recent book, uses the theory of social representations as a frame of reference which allows incorporating previous researches on different determinants of tax compliance. On the basis of Moscovici’s (1961/2008) and Abric’s (1994a) above mentioned definitions of social representation, Kirchler (2007) categorized the researches under the umbrella of social representations, mentioning the following levels and fields:

1. **Subjective knowledge, thoughts and concepts of taxes** – this level is based on the perceptions, knowledge, understanding and subjective constructs that citizens possess about taxes. This knowledge can be rich or poor depending on employment group (self-employed vs. students).

2. **Attitudes** in this field refer to “*a. subjective evaluation of tax evasion, b. evaluation of crime in general, c. judgments of the government and state in general, d. intolerance of tax evasion, e. attitudes and moral beliefs about the property of tax evasion, f. moral attitudes of tax evasion, g. tax mentality*” (Kirchler, 2007, p. 50).

3. **Norms** concerning taxes can be distinguished according to three levels:
   
   a. **Personal norms** are internalized norms how to behave for example moral reasoning, Machiavellanism, egoism or hedonism belong to this category.
b. *Social norms* refer to a group member’s perception of others’ behavior and acceptance regarding tax evasion.

c. *Societal norms* can be conceived as cultural standards which are shared in a collective or national level; for example, trust towards government belongs here, and has a positive impact on taxpaying.

4. *The opportunity of avoiding taxes.* This factor refers to the perceived behavioral control towards non-compliance. Kirchler (2007), on the basis of several studies, concludes that perceived opportunity – which is highly correlated with actual opportunities – is one of the most important predictor of tax evasion.

5. *Fairness issues: distributive, procedural and retributive justice.*

   a. *Distributive justice* refers to the exchange of resources, such as the benefits and costs on the basis of the equity rule. In the field of taxes, it concerns the taxpayers’ perception of the balance between their shares to the common and the benefits they receive from the shares, along with the balance between others’ contributions in proportion to their benefits from public goods.

   b. *Procedural justice* regards the process of how resources are distributed. It reflects on the efficiency of interaction between tax authorities and individuals. If tax officers turn towards taxpayers in a respectful, responsible, neutral and trustworthy way, it can raise the perceived supportiveness of tax authorities, which will have a positive impact on compliance. The opposite is true as well: if citizens feel that they are treated in an unfair, disrespectful or authoritarian way, it can easily result in their non-compliance.

   c. *Retributive justice* refers to the perceived correctness of penalties when a group member breaks a norm or a rule. Unreasonable, unfair or intrusive sanctions lower the reputation of tax authorities, and result in an inferior compliance.

   Distributive, procedural and retributive justice exist in individual, group and societal levels (Wenzel, 2003). For example, in the case of distributive justice, a citizen can perceive his personal tax burden as high, or his personal benefits as lower than his friend’s. Moreover, group members can believe that their tax rates or benefits are different than other groups’. Finally, concerning the societal level of distributive justice, it can refer, for example, to the progressivity of tax system. In the last two levels, social categorization and identification play an important role.

6. *Motivational postures and tax morale in a societal level*

   *Motivational postures* include and aggregate the above-mentioned factors, such as subjective knowledge and concepts, attitudes, norms, fairness perceptions, as well as intended
perceptions. Kirchler (2007) refers to Braithwaite’s (2003) tax morale concept in the following way: “they are interconnected beliefs and attitudes that are consciously held and openly shared with others that includes individuals’ attitudes towards tax system, and the tax office, how authority is used and what the authority is trying to achieve” (Kirchler, 2007 refers to Braithwaite, 2003, p. 96). Hence, motivational postures and social representations are similar concepts.

Tax morale is similar concept to the above described motivational postures which can be defined as “an attitude of a group or the whole population of taxpayers regarding the question of accomplishment or neglect of their tax duties, it is anchored in citizens, which is the base of their inner acceptance of tax duties and acknowledgement of the sovereignty of the state” (Kirchler cites Schmölders, 1960, p. 97-98.). Tax morale is also connected to civic duty; citizens, who are characterized by a high level of civic duty, do not evade taxes, even if they have the possibility to do so. Moreover, in their case, it is not the severe sanctions and frequent audits results compliance, but their responsibility towards the society which guides their behavior. According to Kirchler (2007), from the perspective of social representations tax moral can be interpreted “as a socially shared knowledge, beliefs, and evaluation of tax issues, as well as behavioral intentions and anticipated social approval and disapproval” (Kirchler, 2007, p. 102).

From Kirchler’s (2007) arguments about tax compliance, decisions in game theory experiments, in some cases, do not accomplish on the basis of neo-classical economic theories expectations (Becker, 1968; Allingham & Sandmo, 1972). These theories claim that individuals’ goal is maximizing their expected utility by tax evasion taking into account on one hand the possible benefits and on the other hand the risks of audits and severity of sanctions. Audit probabilities, fines, tax rates and income effects as variables have an impact on compliance, but their effects are week as Kirchler demonstrated it in a detailed manner (2007). It means that, beyond the purely economic financial interest models which claim that tax compliance or evasion are rational decisions outcomes, it is also important to take into account the variables which were summarized in the framework of social representations. In order to explain why neo-classical models do not have high effect on tax compliance, Kirchler (2007) gathered some main explanations. First of all, taxpayers do not automatically avoid taxes when the opportunity presents itself, this being especially true of citizens who trust the government and tax authorities. Moreover, most taxpayers are willing to pay taxes and do not want to maximize their income by avoiding taxes. Furthermore, a large majority of citizens do not question the legitimacy of tax system and its objectives, and this is especially true in an
optimal tax climate which is characterized by mutual trust. Besides these arguments, rational models presuppose perfect information processing capacity and full information about the experimental situation; however, in reality, most of citizens have limited understanding or even a lack of interest in this field.

Within Kirchler’s slippery slope model (2007), variables concerning rational choices such as sanctions, audit rates and possible benefits and variables relating to the social representations (i.e. attitudes, norms, motivational postures, tax morale) are involved in the model. The model separates enforced tax compliance from voluntary tax compliance. Compliance can be the result of the strong power of the State (enforced compliance); however, it can be the realized by the trust towards authorities (voluntary compliance). In the case of enforced compliance created by the strong power of state, taxpayers do not make up their mind to avoid taxes because of the high-perceived probability of being detected and sanctioned. However, if the power of the authorities is weak and there is no trust between citizens and tax authorities, taxpayers will take advantage of the situation and will tend to avoid more. Nevertheless, in the case of high voluntary compliance, which implies a favorable social representation towards taxes - such as a. solid and mutual trust between citizens and authorities, b. detailed tax knowledge of citizens, c. perceived justice concerning shares, sanctions and procedures among taxpayers, d. positive attitudes and supporting norms towards taxpaying - the authorities ‘cop and robber’ attitude is not effective; it can even undermine the voluntary compliance. High compliance can only be maintained in high power and high trust condition. The model’s name – slippery slope - reflects on the “downward spiral may occur” (Kirchler, 2007, p. 205) when the level of power and trust lowers. In this case, trust towards authorities weakens and, as a result, brings more audits and higher level of monitoring; as a consequence, the ‘cops and robbers’ dynamics becomes more prevalent and results in distrust towards authorities among citizens. Hence, the top of the slope is characterized by the ‘service and client’ relationship between taxpayers and authorities, which is characterized by high trust level and voluntary tax compliance. On the other side because of distrust between citizens this relationship can become similar to the ‘cop and robber’ rapport, which is characterized low trust level and enforced tax compliance.

Possible correspondences between Kirchler’s summary on taxes and Doise’s levels in the field of social representations

As we have seen, Kirchler (2007) classified the variables that can have an impact on tax behavior in several levels. His classification is compatible with Doise’s four steps
continuum, which is based on the levels of researches in the field of social representation that we cited as “bridging individual and collective” (Doise, 1984). On the basis of our reasoning, Kirchler’s work gives a good example of how the social representation of a specific topic can be explored by distinguishing different levels which are in specific interaction which each other. The slippery slope model, where rational economic theories which refer to sanctions, audit rates and benefits, have different outcomes regarding taxpaying in positive and negative tax climate can be mentioned as a good example for the interaction between different levels. Here, intra-situational variables, such as punishments and audit rates, are in interaction with ideological level’s variables, such as tax climate. In the following, I would like to demonstrate how Kirchler’s interpretation on social representations fits to Doise’s four levels of categorization.

<table>
<thead>
<tr>
<th>Doise’s (1984) levels of research on social representations</th>
<th>Kirchler’s (2007) summary on the social representations and decision-making concerning taxes</th>
</tr>
</thead>
</table>
| Psychological or intra-individual level                   | a. Subjective knowledge, thoughts, concepts and attitudes concerning taxes  
b. Personal norms  
c. Distributive, procedural and retributive justice in an individual level  
d. Prospect theory: risk aversion in the case of a win situation vs. risk seeking in a lost situation |
| Inter-individual or situational level                     | a. Perceived opportunity  
b. Economic theories: sanctions and benefits concerning evasion  
c. Framing of the situation: it can be perceived as a won or a lost situation |
| Different positions in the society                        | a. Social norms  
b. Distributive, procedural and retributive justice in a group level  
c. Differences between social representations of the tax evasion, tax avoidance and tax flight between different groups (business students, fiscal officers, business lawyers, and small business owners) within the same culture (Austria) |
| Ideological level                                         | a. Societal norms  
b. Distributive, procedural and retributive justice in a societal level  
c. Motivational postures such as tax climate and tax morale in different cultures |

*Table 1. Correspondences between Kirchler’s (2007) categorization of researches in the field of social representation with behavior concerning taxes, and Doise’s (1984) levels of research in the field of social representations.*

In Table 1, several factors that influence tax behavior and define the social representation concerning taxes can be seen. Most of these variables were already described, however, the role of prospect theory and framing were not among them. Moreover, social representations tax evasion, tax avoidance and tax flight have not been mentioned yet. Before
continuing the description of the possible relations between Kirchler’s summary and Doise’s levels, we have to say some words about these two fields.

Prospect theory, according to Kahneman and Tversky (1979), was defined as an irrational tendency to be less willing to gamble with profits than with losses. In the case of the taxes it means that, on one hand, the more a citizen conceptualizes taxes as a loss, the more he/she will have a tendency to take risks, in the form of tax evasion; on the other hand, the more a taxpayer conceptualizes paying taxes not as a loss (but as a gain), the more she/he will be motivated not to take a risk, hence, she/he will be less motivated to cheat on taxes. On the individual level, risk seeking and risk avoidance influence decision-making about taxes; however, tax authorities can apply different framings of taxes, and in therefore, they can influence how citizens perceive paying taxes: as a gain or as a loss. That is why prospect theory can be applied both at the individual level and at the collective one. Even if the relationship between, on one hand losses and risk seeking, and on the other hand between gains and risk avoidance, manifests itself at an individual level, it is the wider social context which provides the framing; hence, it is the tax authority which can influence citizens to be in a gain or a loss situation (see in details in Kirchler, 2007).

Different groups in society can construct dissimilar social representations on tax evasion, tax flight, and tax avoidance. Kirchler, Maciejovsky and Schneider (2003) compared four different groups from Austria, namely fiscal officers, business students, business lawyers and small business owners; they had to produce free associations on scenarios on tax evasion, tax flight and tax avoidance. The central core obtained from the analysis of the associations were not dissimilar, but the neutrality of words mentioned were different: students gave more neutral terms, business lawyers less neutral than the students, and finally, fiscal officers and small business owners produced the less neutral associations; this reflects on the different levels of affectedness in tax issues of the different groups. The perceived fairness of tax avoidance, tax evasion and tax flight were different on the basis of the employment statutes of each group: tax officers describe taxes as the most unfair, in comparison with the other groups; moreover, for small business owners, tax flight seemed to be much more a fair solution in order to reduce their tax burdens, than for the three other groups. Finally, concerning tax knowledge, differences were also found among the groups: fiscal officers had the richest knowledge, but small business owners had the poorest knowledge in tax issues. This latest result is interesting because positive correlation was found between subjective knowledge and attitudes. In sum, we can see differences among different groups within the same society concerning taxes. We have seen that, even if the central cores were not different
in the different groups, their attitude, perceived fairness, and subjective knowledge differ respecting the groups’ different everyday practices in tax issues. This study proves that, within the framework of social representations in a given culture, it is fruitful to ask about different facets of the representation (for example attitudes and justice issues), and not only on the associations and the centrality of the elements, to different groups.

On the basis of Kirchler’s work (2007) on taxes, we have found a rich description of the different levels of analysis on a specific topic. Kirchler’s integrative perspective: (1) similarly to Doise (1984) distinguishes different levels of analysis under the umbrella of social representations, (2) describes the possible general cognitive processes, (3) with the slippery slope model, on one hand looks for an integration between different levels of examination, (4) and on the other hand, points out dissimilar decision-making processes which vary on the basis of the social context. Thus, in this case, we can see a balance between the description of the content and processes; we also see a refined integration of different levels of researches. According to Kruglanski (2001) this perspective of the social representation is not easy to criticize, and represents the intention of a profound and well-based integration between both individual and social levels of analysis deriving from different scientific paradigms.

**Conclusion regarding social representations**

One of the main messages, maybe the most important message of the theory of social representations, to social psychology, concerns the importance of the social context in which an individual process takes place. Moscovici, with this theory, aimed at bridging two traditions: on the one hand, Durkheim’s sociological perspective, and on the other hand, the individual-centered social psychology. Durkheim’s goal was the creation of a sociology which can examine scientifically social facts, and Moscovici’s goal was to readdress the question concerning the social nature of social psychology, and to create an empirical social psychology in which the social dimension is taken into account in its ‘right’ place. This bridging process was refined and completed by other researchers, as well (for example Doise, 1984 and Kirchler, 2007).

Within this theory, qualitative and quantitative researches are both welcomed. Hence, this framework gives place for studies from anthropological to experimental methods; but what is more important is that there is no evaluative distinction of the different research
methods in terms of social representations. In fact, this is understandable as most authors, today, combine various approaches using various methodologies in the study of social representations. Moscovici emphasizes, among different methods, the role of observation; moreover, with his basic work on psychoanalysis, he provides guidelines to show how it is possible to examine both the process and the content of social representations. Concerning the deeper analysis, mainly the structure, but the processes, as well, it is the school of Aix-en-Provence, hallmarked by Abric that has taken very crucial steps ahead.

We have seen that, concerning the relationship between social representations and practices or behavior, that there are several theories within the framework of social representations and different possible approaches. Jodelet, Abric, Wagner, Valsiner, Bertacco, Nede and the others previously mentioned researchers possess more or less different viewpoints concerning both theoretical and methodological perspectives respecting the exploration of this relationship. However, for all of them, the definition of a more precise relationship between the two conveys a crucial importance.

In the field of social representation of specific issues, Kirchler’s work can provide a good example how it is possible to use the theory of social representations such as an integrative theoretical framework which makes possible to build in the results of different paradigms. With his work on social representations on tax behavior, Kirchler realized something that Moscovici found important at the beginning of his work concerning the role of social representations: using it as an overarching framework allows integrating more particular researches. In this work, we can recognize Doise’s different levels in the field of tax evasion. Furthermore, in this case, there is no imbalance between the description of process and content, which is a general critique from other theoretical frameworks, such as social cognition. Moreover, Kruglanski’s critique on phenotypic and genotypic explanations can hardly be used with Kirchler’s work, where general principles’ detailed description is interpreted in different specific socio-cultural context referring to different tax climate. Finally, on the basis of the slippery slope model, we have seen the importance of the interplay between previously differently treated levels of scientific research. Hence, the study of social representations, not only provides a good integrative framework concerning particular findings in a given field (i.e. tax behavior), but it also allows examining the interplay between the different levels (i.e. intra-individual decision-making processes and tax climate). In the field of competition, there is no such integrative work, from the perspective of social representations. On the basis of the above-mentioned reasons, it could be important to see how more general processes work in different social and cultural contexts, with the example
of competition. In order to bridge the different levels of a phenomenon, both in the cases of frauds or competition, it is of crucial importance to know which cultural and contextual factors have to be taken into account, and which intra-individual processes can be recognized in the chosen field. In the following, with Kirchler’s guideline, we will take into account the different levels of analysis in the field of competition and academic cheating.

Why was academic cheating chosen as a more specific topic from the larger field of fraud? The reasons are that our examined subjects are students, for them, for example, tax evasion, tax flight, tax avoidance, or different forms of corruption, were not part of their everyday practices. Even if they had some information on these topics from the press, these topics do not appear at the level of behavior in their own life; while for a businessman evaluation of the performance, or even pure survival, depend hardly on the profit that he makes. In this way, they can be honest and they can be dishonest to earn money. In this context, corruption, or tax evasion, can be presented as a part of their everyday practices. For the future generation of businessmen, thus mainly for the students who are concerned by business studies, but not only, these concepts or fields will later become part of their everyday life; however, during their studies, they are not yet part of their lives. For them, the most important performance situations belong to the context of the university and principally to examination. It means for students those are the exams when their performance can be measured, and on the basis of the exams they can have or have not a diploma, which can open the door towards their career. In my research project, I tried to concentrate mainly on the existing practical aspects of the social representation of fraud, and not the aspects which does not concern the everyday practices of my observed samples, that is why I was interested in academic cheating from the perspective of social representation.

In the following chapters, using the theoretical framework of social representations and the above-discussed principles, I would like to overview the researches in the field of competition and academic cheating, using the categorization that we created on the basis of Kirchler’s work on tax behavior.
Competition

Introduction

In this research project, my purpose was to compare French and Hungarian students’ social representations on competition and academic cheating. As we have seen above, social representations can be interpreted in several levels on the basis of Doise (1984) and Kirchler’s work (2007). My purpose was to analyze results concerning competition and academic cheating in a similar framework. In this chapter, competition will therefore be analyzed in this manner. However, before this summary, I find useful to divide studies on competition in at least three big historical phases of research: a pre-Deutsch period, a period which was characterized by Deutsch and his intellectual and scientific heritage and a post-Deutsch period. This separation was practical for my point of view because in the United States of America – where most of the researches were conducted – there were two changes in this field during the last century. I decided to put more emphasis on more recent, post-Deutsch researches, and only to mention former researches. However, I try not to underestimate former results in the light of latest findings from the more recent perspectives and mention them at the place which they merit thanks to their useful results.

Furthermore, I have to mention here that the number of researches which connect the psychological (and mainly social psychological) knowledge about fairness and moral issues with competition is low, and even fewer studies were carried out that aimed to reveal the relationship between academic cheating and competition. In this way, after the review on the latest paradigm change concerning competition I attempt to find the most possible variables that can influence fairness and morality in competition. Therefore, in the last part my goal is to explore the intra-individual, situational, intergroup and cultural level of the possible factors which can be taken into account concerning fairness of competition. Furthermore, in this way on the basis of former researches, I formulate to make some assumptions concerning the relationship between constructive nature of competition and fairness issues. Since, my research project concerns comparisons between French and Hungarian students, all along the chapter on competition, we will try to concentrate on educational and intercultural aspects. During the whole analysis, Fülöp’s (2008a) article provided guideline in which she introduced the notion of paradigm shift regarding the psychology of competition.
About the meaning of competition

The English word of competition derives from the Latin term of “competition” which means judicial demand and rivalry. However the root of the word “competition” originates from the term “competere” (be sound, capable, applicable; meet; happen at same time, coincide). This expression can be divided into two parts: on the one hand the “com” prefix refers to a collective activity (with, together), on the other hand the verb of “petere” signifies “to seek”, “to attack”, “aim at” or “to desire”. The French word of “competition” has the same roots (MyEtymiology.com).

However, the Hungarian “versengés” term which is parallel with the competition has different roots. On the basis of the Historical Dictionary of Hungarian Language (Szarvas & Simonyi, 1893) the word of “versengés” appeared in the first versions of Bible. What is interesting this word comes out always in a negative context. For example, in one place the Bible warns the believers from finding pleasure in lust, laziness and competition: “Legyen a mi vigassagunc nem buiassagban, nem lagysagban, nem versengesben” (Let’s find our gaieties not in lust, not in torpidity and not in competition) (Szarvas, Simonyi, 1893, p. 1080).

In another case the competition is rooted in the devil’s science: “Ördögi tudománynak kell lennie, melynek tulajdon természetibol naponként újabb versengések és hit sokasitások gyökereznek” (It has to be a science of the devil in which competition and multiplication of faith is always rooted.) (Szarvas & Simonyi, 1893, p. 1080). Finally, the Bible describes Jesus Christ such as a personality who lacks every form of competition: “A Christusnak a személyisége felől semmi versengés nintsen” (In the personality of Jesus Christ there is no competition at all.) (Szarvas & Simonyi, 1893, p. 1080).

Taking into consideration the etymological roots we can see, that competition is a fundamentally social concept, which conveys positive and negative connotations, as well. The English “competition” and the French “competition” has Latin roots, which on one hand refers to an aiming and a seeking activity, which may turn into attack. On the other hand it conveys a strong affective connotation, such as desire. In the Christian tradition competition becomes an explicitly negative concept. The etymological derivations of the Hungarian word “versengés” reflects on negative values originated from at least XVIth century influenced by Christian values. The descent of the word concerning its negative and positive sides foreshadows the debate on its interpretation during the XXth century’s social psychology.
Pre-Deutsch period

Roots of competition in psychology

In the first social psychological research Triplett (1898) talks about the consequence of race in the following way: “...regarding the laboratory races we infer that the bodily presence of another contestant participating simultaneously in the race serves to liberate latent energy not ordinarily available.” (Triplett, 1898, p. 533). Therefore, he emphasized firstly the positive and energizing characteristics of competitive situations. Moede (Moede, 1914, cited by Young, 1936) continued to work in the field of competition, who measured children’s competitive and noncompetitive conditions, however, he found only minor differences regarding the performance in the two examined settings. In F. H. Allport’s (1920) experiment, students gave free associations with or without the presence of other students. Most of the students (75%) have better performance in the presence of others. In another study Whittemore (1924) compared competitive and cooperative groups where participants had to resolve a semi-mechanical performance task, when they have to print with individual rubber types a paragraph from a newspaper. His results show that in the competitive condition they became faster in the work. However, the quality worsened, even if the subjects knew that the quality is equally important, than the quantity. Sim (Sims, 1927, 1928 cited by Young, 1936) used a reading test and later a verbal substitution test in his experiments and he found that individual competitive setting led to better performance, than intergroup competition or non-competitive condition.

In a subsequent study Hurlock (1927, cited by Young, 1936) used an arithmetic (addition) task among elementary school children in rivalry and control conditions during five days. He found that, in competitive conditions, the performance of children improved by 35% among average ability children, by 37% among high ability children and by 59% among lower ability children in comparison with the non-competitive control condition. Hurlock sees mainly positive consequences of competition in primary school environment: “rivalry is an effective incentive to use with children of the elementary school grades as a means of inducing them to do better work in connection with their school studies. The interest which this arouses, the outlet for natural desire to compete with others of equal ages, and the training which it gives in building up of a cooperative spirit, as opposed to selfish individualism, justify its use. Even it should lead to a tendency to decreased interest in school
work, and the opportunity for development of character and personality.” (Young cites Hurlock, 1936, p. 408.). Furthermore, as we can see in this citation competition is opposed to “selfish individualism”, but it is not opposed to “cooperative spirit”. As we will see in later researches opposition between competition and cooperation, and the identification of competition with a kind of selfish individualism will be prevalent in the most of subsequent studies during the XXth century. Such expressed enthusiasm regarding competition will reappear by fits and starts only at the end of XXth century.

In a further research project, Margaret Mead, in the 1930’s carried out an ethnological research on competition and cooperation in different ‘primitive’ cultures taking into account psychological aspects, as well. In her work, she uses the following competition definition: “The act of seeking or endeavoring to gain what another is endeavoring to gain at the same time.” (Mead, 1937, p. 8). In this definition, two actors would like to achieve the same thing, while in her cooperation concept the two actors work together for the goal. In both cases, she was interested, not in the abstract level of competition or cooperation, but by the average habits and actions of the members of different cultures. Even if her anthropological observational methods differs from more recent qualitative methods, I would like to refer to the importance of Mead’s (1937) work, because her dimensions of analysis on competition and cooperation reappeared in the second half of 1990’s in Márta Fülöp’s work. However, this reappearance did not happen especially in “primitive” but in the case of moderately and highly developed cultures such as USA, UK, Japan, Canada, France, Hungary, Slovenia, etc. Mead and Lévy-Bruhl too would be satisfied with this come-back in the case of competition.

**Research on competition influenced by Deutsch**

In the following Morton Deutsch’s crucial impact on competition research will be reviewed. Firstly we will discuss the societal influences that pushed him towards such conceptualization of competition and cooperation. His views defined fundamentally for decades the conceptualization of competition in the field of the social psychology, educational psychology and intercultural researches on competition and cooperation (see Fülöp’s review, 2008a). At the end of this part, we will summarize motivational researches concerning competition, which show similar characteristics with the above mentioned domains influenced by Deutsch.
Deutsch, his theory and his research

On the basis of a quite recent interview with Deutsch (Julian Portilla, 2003a) his motivations and cues that determined social psychology of competition can be summed up in four points: (1) The work he was supposed to carry out had to have high social utility; (2) he worked with Kurt Lewin who deeply determined how he started to work in a field such as cooperation and competition; (3) competition is opposed with cooperation; and (4) it has negative connotations, while cooperation is a positively evaluated concept which is a good way to “deal with human problems”. His PhD dissertation was published in 1949 in the Journal of Human Relation (Deutsch, 1949a, 1949b).

His definition of competition is based on several previous works such as May and Doob (1937) who writes the following regarding competition: (i) (individuals) “are striving to achieve the same goal which is scarce; (ii) they are prevented by the rules of the situation from achieving this goal in equal amounts; (iii) they perform better when the goal can be achieved in unequal amounts; (iv) they have relatively few psychologically affiliative contacts with one other.” (Deutsch cites May and Doob, 1937, p. 17). Therefore, from this perspective competition is characterized by scarce resources, the rules of competitive situations, better performance if the goal can achieved unequally, and relatively weak relationships between competitors. Furthermore, in the case of May and Doob, competition turns to be opposed with cooperation. Another source that have impact on Deutsch’ conceptualization of competition derives from Helen Block Lewis (1944a, 1944b). According to her the most important distinction between competition and cooperation pertains to ego demands: in cooperation the focus is not on the individual, whereas competition heightens ego demands. In this latest case the ego objective becomes more important than others’ aims and the common goal. Therefore, she conceptualized competition a priori individualistic, ego-centered, selfish and neurotic in nature.

Beyond May and Doob (1937) and Lewis (1944a, 1944b), Lewin as Deutsch’s supervisor and his field theory had great impact of the conceptualization of competition. Therefore, Deutsch (1949a) building on these notions and Lewin’s field theory concludes that the main difference between competition and cooperation takes place in the goal regions. In the case of cooperation a participant of the given activity can enter into the goal region, only if all individuals enter into this area. He defines this goal setting as a “promotively interdependent goals”. In the case of competition, if somebody arrives to the goal region, the others will not be able to enter to it. He called these competitive situations “contriently
interdependent goals”. Hence, in an other way we can say that in the case of competition the goal is a scarce resource that only one person can achieve, however during cooperation there the goal can not be interpreted as a scarce resource, because everybody can and have to achieve it in order to accomplish the task. Consequently, cooperation and competition are opposing concepts, even if they can be oriented towards the same goal. The nature of opposition derives from the interdependence of goals behind them: in the case of competition a participant can not reach the goal region if somebody reached it before, while in cooperation a person can obtain his/her goal only if the others also have obtained it.

In order to examine the negative consequences of competition and the positive outcomes of cooperation, Deutsch (1949b) carried out an experiment in which participants firstly had puzzle problems and later discussed human relation problems. In the cooperative situation the five group members were compared to four other similar groups and the members received the same reward, which led to cooperation among the members. However, in the competitive situation the reward was given on the basis of the relative, personal contributions of group members. Hence, here the comparison happened between the members of the given group, and not between other groups, which resulted competition between the members. The behavior of the participants was evaluated by trained observers on several dimensions. The results of this experiment showed that: (1) participants in the cooperative condition perceived themselves more promotively interdependent, while in competitive setting they saw themselves more contriently independent; (2) there was a greater substitutability for similarity between intended actions among persons who participated in cooperative than in competitive settings; (3) there was greater positive encouragement among members of cooperative than competitive situations, (4) cooperation exhibit more helpfulness, while competition exhibit more obstructiveness. Furthermore, cooperation led to (5) more coordination of efforts; (6) more diversity in amount of contribution per member; (7) more sub-division of activity; (8) more achievement pressure; (9) heightened attention towards others; (10) more comprehensive communication, (11) better productivity in a quantitative and qualitative manner, (12) friendliness during discussion, and (13) better evaluation of the group, etc. than competition. Therefore the positive consequences of the cooperation are striking. It might be the reason which reinforced him in the concluding remarks to reappraise the efficacy of competitive grading system in educational settings. These results had a strong impact on notions of the next generation of top-researchers in the social psychology of competition. Therefore, in the period before the 1990’s, either Hurlock’s enthusiasm, or Mead’s broader views on competition were missing.
Game theory in the social psychology of competition

There was another scientific factor which led to strong dichotomization of cooperation and competition in the second half of the 20th century; the game theory which was developed in the 1940s in order to understand economic participants such as companies, markets and consumers. On the basis of the intention of the pioneers of this field, the theory was also developed to explain sociological problems (Neumann & Morgenstern, 1944/1953). However, the usage of this way of thinking has become very popular in psychology beyond other different fields such as biology, computer science. In short, on the basis of mathematical rules the game theory models – traditionally rational – human behavior in situations when individuals’ payoff depends on the decisions of others. The classical game theory model supposes the principle of rationality. More precisely, it assumes that (1) individuals behave rationally, (2) that they are capable to evaluate utility in a quantitative way, which means that they are able to render benefits to their behavior, and (3) that individuals would like to maximize their pay-outs (Faragó & Joó, 1982).

Neumann and Morgenstern (1944/1953) start their general description of the game theory with a primordial distinction between zero-sum and non-zero-sum games: “An important viewpoint in classifying games in this: Is the sum of all payments received by all players (at the end of the game) always zero; or is this not the case? If it is zero, then one can say that the players pay only to each other, and that no production or destruction of goods is involved.” (Neumann & Morgenstern, 1953, p. 46). As we have seen above, Deutsch’s definition on competitive situation was very close to a zero-sum game. Moreover, the game theory provided a framework for the analysis of the mixture of cooperative and competitive strategies. In this case, it was the participant who chose between cooperation and competition; he could mix up in a repeated game the different strategies. However, several real life situations are out of this paradigm as well, because the interplay between competition and cooperation exist in a more subtle manner that for example in the case of a two players prisoners’ dilemma situation.

Deutsch, his students and other researchers carried out several studies on cooperation, competition, conflict, bargaining, and interpersonal negotiation using the game theory as a methodological and theoretical framework (for example Deutsch & Krauss, 1966). In the following, I will present some examples among these studies, and I will focus mainly on competition. One of the most popular games used by psychologists was the prisoner’s dilemma. In this game, participants have to take the role of prisoners, and individually they
have to decide (1) about the confession of a given crime, or (2) not to say anything and pretend that it was the other person who did it. The matrices-structure of the game refers to different punishments and gains. On the basis of the cooperative and competitive decision of the opponents they can achieve punishments and gains.

In these experiments participants can choose between two behaviors: competition and cooperation. Therefore, this game with Schelling’s (1960) term: a mixed motive nature of conflict. Furthermore game matrices were popular experimental devices because they facilitated a precise definition of reward structure (Deutsch, 2003b). Consequently, since the late 1950’s and the early 1960’s experiments based on game theory become very popular among psychologists who are working on conflicts, cooperation and competition. However, their concept of conflict was intertwined with the concept of competition. The marriage between competition and conflict lasted very long especially concerning intergroup competitive processes (see below). Nevertheless, conflict and competition can be generated without each other such as Fülöp (1995) described it. Beyond different characteristics of conflict and competition Fülöp (1995) summarized the main situational factors that can be taken into account regarding game theory researches: (1) communication between participants; (2) the role of instructions; (3) strategy of other participants; (4) relationship between participants; (5) nature of rewards; (6) information about the partner; (7) individual or group decisions. Here these factors will be shortly described:

Concerning communication the number of cooperative answers rise if the participants can see each other. Moreover, cooperation becomes more prevalent if they are allowed to communicate with each other by exchanging written messages or verbal conversations. In this case they don’t feel insecure, hence their cooperative inclination enhances. According to Deutsch (1973) the effective communication has to contain (1) explicit expectations concerning the other’s cooperation, (2) the possible reactions if cooperation is not carried out from one side, (3) a plan how cooperation can be resettled in such cases.

The instructions of the task can have fundamental impact on the trust between participants. If the instruction refers to competition participants hardly trust each others. Hence, opposing with cooperative instructions, they have difficulties to interpret the messages concerning cooperation from other participants such as honest statements (Fülöp, 1995).

The other players’ strategies can influence fundamentally competitive and cooperative strategies of the participant. If the partner constantly chooses competitive strategy, the participant will respond to it with high number of competitive responses. From the other side, if the partner is permanently cooperative, the number of cooperative responses rises until a
certain level, but it will be lower than the expected. In this case the participant has two choices: he/she can reciprocate cooperation, and he/she can use the competitive strategy which results maximal personal payoff (Fülöp, 1995). That is why participants who met almost absolutely constant cooperative strategy (95%) in the experiment of Bixenstine and Wilson (1969) responded only in the 50% of the cases with cooperation. The most effective way for establishing cooperation is the reactive strategy. It means if a participant receives similar response that he/she gave in the previous turn of decisions, he will cooperate in the highest level. In this way the insecurity decreases. The participant can interpret cooperative his partner’s cooperative response as a reward and competitive answer such as a punishment for the participants’ decision of the previous turn (Solomon, 1960).

*Relationship between participants* can fundamentally influence cooperative and competitive strategies. In the prisoner’s dilemma partners are in isolation, they do not know the other person. However, these pieces of information convey crucial importance. Such as we mentioned above in the chapter about social representations, if somebody supposes that his partner is a machine and not a human being they cooperate more, than when opposed to a supposed human being (Abric, 1987). The supposed status can also influence the strategies, competition increases if the status of the partner is perceived: (1) similar to the participant’s one; (2) higher than the participant’s status and their relationship is anticipated to be long-lasting; (3) lower than the participant’s but their relationship is perceived as short-term (Mack, 1976). Furthermore, if participants knew each other before the game, and their relationship is trustful, the number of cooperative answers will increase (Nemeth, 1972).

The number of cooperative and competitive answers depends on the *individual or collective nature of decision-making*. On the basis of Players’ (1976) results, we can see that in the case of a group decision-making situation the probability of the competitive answers increases, because the group risk-seeking inclination is higher than in the case of the individual decision-making.

Beyond the above-mentioned main factors, Fülöp (1995) takes into account the positive and negative aspects of game-theory researches in the field of competition and cooperation researches. She mentions the following advantages: it makes possible to analyze the competitive and cooperative behavior in a laboratory context, which leads to good experimental control over the above-mentioned variables. Moreover, it can predict the impact of situational variables which can influence individuals’ or groups’ choice between competition and cooperation if they possess only these response sets. On the other hand, she also takes into consideration disadvantages of this paradigm:
This paradigm can hardly reveal the individual differences and characteristics of competitive and cooperative behavior, which means that participants are constrained according to their response set.

The situations are not always clear for the participants, which reflect on the representations that they created about the situation itself. This argument converges to Abric’s way of thinking, who emphasizes the priority of the representation created about the task, the other players, etc.

This experimental setting conveys the characteristics of a game. Which also refers to the above-mentioned problems: someone can interpret this situation as a game, but it is also possible to conceive the task as gambling, a cruel competition or a friendly cooperative pastime. There are few studies that take into account this aspect. Abric’s work (1987) is one of them.

The position of the participants is abstract and figurative, which is dissimilar to the everyday situations in which they know the rivals’ or partners’ intentions and motives. In this abstract level, the importance of ethical obligation of mutuality and helpfulness convey less importance than in real-life situations.

In these situations, two possibilities of responses are given: competition or cooperation. These two possibilities can be mixed up, however, they cannot be used at the same time, which is the case in reality. It means that competitive and cooperative strategies can appear simultaneously in real life situations, whereas it is impossible in the game theory context.

Thus, according to Fülöp (1995), the paradigm of game-theory is not able to explain complex relation systems, which determine the behavior of a person in real-life situations. Therefore, in the present study where the main interest is turned towards measurement of behavioral aspects of social representation of fraud and competition in a situation which is close to the observed samples’ everyday experiences the paradigm of game theory will not be used.

The afterlife of game theory and Deutsch’s heritage regarding the psychology of competition

Several cross-cultural, motivational and educational psychological researches were carried out that followed the traditions of either Deutsch or the game theory paradigm. In the following
we will present only a very short summary of each field. However, appendix 1 contains a detailed description regarding both fields.

Several cross-cultural researches were carried out with children and adults by using game-theory paradigm or other games. In these studies, generally Northern-Americans were compared to members of other cultures, such as Belgians (McClintock & McNeel, 1966), Israelis (Shapira & Madsen, 1971), Indians (Alcock, 1974; Carment, 1974) and Eastern-Africans (Munroe & Munroe, 1977). The first main problem with these studies was the narrowed response set that contained only two choices: cooperation vs. competition. On the basis of Fülöp (1995, 2002, 2004), a wider response set is necessary in order to explore culturally defined forms of competitive and cooperative behavior. The second main problem refers to the experimental settings in which competition and cooperation were exposed as opposing choices. As we will see later, in real life – and in some experimental cases - competition and cooperation occur simultaneously, they do not exclude each other (see for example Fülöp, 1999a, 1999b). The third main problem in terms of methods and results in such experimental settings refers to the research questions that can be asked: these experiments can answer to questions such as “in which proportion” or “which one is more competitive”. However, these results can answer much hardly the question in terms of “how”, that could explain, for example, different forms of competition or different areas in which it appears in a given-culture. In sum, these methods can only roughly grasp competitive style which characterizes the members of a given-culture and they are hardly applicable for identifying more complex and culturally embedded concepts of competition or cooperation and their appearance at a behavioral level.

Regarding competition in the field of educational psychology, we can heighten four reviews from the most prominent followers of Deutsch, namely from Johnson and Johnson (Johnson & Johnson, 1974, 1979, 1995; Johnson et al., 1981). These reviews summarizing hundreds of research that were influenced by the works of Deutsch had the following conclusions: cooperation provides better performance even in the case of complex, well and not well defined, linguistic and non-linguistic complex problem solving tasks; it leads to open, effective and accurate communication; it produces less anxiety; it has more positive impact on interpersonal relationships; it facilitates more studying and helping behavior and academic activities, than competition. However, concerning productivity we have to take into consideration variables such as group size, laboratory or field settings, type of tasks (i.e. simple/repetitive tasks), and time span of the tasks. Therefore, competition in educational settings became a negatively perceived phenomenon, while cooperation conveyed several
positive values. Whereas during the second half of the XX\textsuperscript{th} century’s educational psychology the question arose regarding the conditions in which competition can be useful, more productive, enjoyable and harmless in educational context empirical response did not see the light until the second half of the 1990’s (see Fülöp’s review, 2008a).

Regarding the motivational literature from 1970’s until the early 1990’s competition was seen as a factor which decreases intrinsic motivation (Amabile, 1982; Deci, Betley, Kahle, Adrams, & Porac, 1981; Vallerand et al., 1986a, 1986b). Furthermore, Amabile (1982) found that competition led to decreased creativity. However, according to several other studies (Reeve et al., 1985; Reeve & Vallerand, 1984; Vallerand & Reid, 1984, Reeve & Deci, 1999) competitive winners reported high perceived competence and high motivation as a consequence of positive competitive feedbacks. A decade later, Reeve and Deci (1996) found that competition does not have any impact on intrinsic motivation. Nevertheless, they report differences concerning external pressure of winning vs. the lack of competitive pressures: in the latest case they measured higher intrinsic motivation. These results suggest mainly that competition decreases intrinsic motivation if the pressure of competition derives from an external source.

As we have seen in this short summary the strong influence of the game theory paradigm can hardly be evaluated purely positively in the field of cross-cultural studies. Furthermore, in the motivational and especially in the educational literature competition is dealt with as a phenomenon that leads to bad performance, anxiety, worsened relationships and lower intrinsic motivation, than cooperation. In the three fields, we can find the traces of Deutsch’s conceptualization of competition.

\textit{Post-Deutsch period in the social psychology of competition}

After the examination of Deutsch’s work and his influence on competition, the game theory and motivational aspects in the following, our interest turns towards more recent aspects of competition. On the basis of Fülöp (1995) and Charlesworth (1996), we will redefine the concept of competition. Fülöp and her colleagues’ researches provide guidelines in the description of previously less emphasized dimensions of competition i.e. open and closed competition; structured-spontaneous competition; the role of aptitudes and efforts in competition, etc (Fülöp, 2002a, 2003a, 2003b, 2004, 2006).
Following this part we will discuss new trends of motivational research which indirectly emphasizes the positive aspects of competition in this field. In the following part on the basis of Fülöp and her colleagues’ recent results of new stream of cross-cultural researches on competition concerning several countries, i.e. Hungary, United States, Canada, Japan, United Kingdom, Slovenia, Nepal, France, China, India, will be presented (Davies, Fülöp, Hutchings, Ross, & Berkics, 2004; Fülöp, 1999a, 1999b, 2002a, 2002b, 2008b; Fülöp & Berkics, 2003; Roland-Lévy, Fülöp, & Berkics 2009; Smart, Read, Ross, Fülöp, Pucko, & Sándor, 2005). After the presentation of these studies, we will make an attempt to summarize how Hungarian and French culture influences the concept of competition.

Re-definition of the concept of competition

Competition is defined by Fülöp (1995) in the following way: “An interactional process derived from inner needs or external/contextual requirement, which implicates two or more persons or groups who deciding their chances commensurable strive for primacy in a given field. Competition is generated among individuals if they belong(ed) to the same group or if they will belong to the same group. Competition emerges always on the basis of a well-defined context which is characterized by its own values, norms and aims.” (Fülöp, 1995, p. 42). As we can see here, Fülöp (1995) does not define competition in the same terms as Deutsch (1949a), with negative interdependence between goal-attainment of individuals. Moreover, it is based on an interaction, which implies comparisons between participants in the competition. Furthermore, competitors (will) belong (-ed) to the same group which serves as a common frame of reference for both of them. Finally, the context of competition has to be taken into account, because it provides the values, norms and aims which conveys crucial importance in the understanding of competitive processes.

Fülöp’s (1995) definition differs in several respects from Deutsch’s (1949a) ideas on competition. Deutsch based his theory on field theory with logical assumptions. He aimed to explain general principles of competitive behavior. Therefore, Deutsch chose a competition definition in which only one individual can ‘enter to the goal region’ while the others cannot behave in the same way. However, he emphasizes that purely competitive (such as purely cooperative) situations rarely exists in reality. In Fülöp’s definition, inner needs, external/contextual requirements, which motivate competition, leave the door open for several dissimilar motivational sources, processes and forms of competition and competitive
behaviors and situations which are under the influence of norms and values. As we have seen, Fülöp’s definition is oriented toward general principles provided by Deutsch. However, beyond these principles her goal is not to define competition in a narrow sense in terms of goal attainment and its effects, but her definition refers to real-life situations taking into account the above-mentioned narrower and broader contextual factors. Her definition makes it easier to carry out an overall analysis on competition. On the basis of this definition, different interactions between competitors, and dissimilar external and internal pressures, values, norms and aims can have more space, in comparison with Deutsch’s restraining theory. In sum, this more recent dimension attempts to create a balance between processes and content of the social psychological interpretation of competition. Both, from social psychological and from cross-cultural perspective this definition can be beneficial.

Beyond the above-cited broader definition, Fülöp emphasizes that scientific research should conceive the concept of competition heterogeneously and not opposed to cooperation. Beyond the dichotomization of competition and cooperation, according to her, competition has to be conceptualized as a multifaceted concept which has a special intertwined relationship with cooperation. More precisely, regarding Fülöp’s (1995, 1997b, 1998, 2001a, 2008a) argument, competition and cooperation are neither mutually exclusive nor inverse motivational and behavioral constructs. They do not have a superior or subordinate position in comparison with each other. Competition and cooperation can appear in parallel. Furthermore, their relationship cannot be described with simple regularities.

In her first studies on teachers’ concept of competition (Fülöp, 1992), Fülöp based the above-mentioned multidimensional dimension of competition (Fülöp, 2001a, 2008a). During the examination of Hungarian teachers’ concept on competition, she identified several, qualitatively different dimensions concerning competitive relationships with other persons and accompanying behaviors. Consequently, she concluded that, instead of the cooperation-competition dichotomization, it is more fruitful to focus on competition itself distinguishing different processes. These conclusions led her to the revision of game theory paradigm, as well.

As we have mentioned above, Fülöp criticises game-theory-based laboratory studies (Fülöp, 1995). She found that in these laboratory studies (1) participants are constrained by their response set; (2) the representation of the participants on the experiment is ambiguous; (3) competition can be conceived by the participants as a game, however in real life competition can have several facets where the game-likeness is only one, and frequently not the most important; (4) the position of the participants is abstract and figurative – in real life it
is rarely true, (5) individuals have a constrained competitive and cooperative response set, however in real-life setting respective response set is very heterogeneous. That is why she suggests that qualitative methods can grasp the multi-dimensional nature of competition in a more meaningful way. Therefore she and her colleagues use diverse qualitative methods, most frequently interviews, observation and questionnaire techniques for revealing specific populations’ multifaceted concepts on competition, such as teachers’ (1992, 1993, 2001a, 2001b, 2002b), students’ (2003, 2006, 2008b; Fülöp, Berkics, 2007) businessmen’s (Fülöp, Orosz, 2006), elder people’s (Fülöp, 2005). Furthermore, these techniques are more effective to identify subtle differences between different cultures as mentioned in the introduction, which could be hardly possible within the framework of game theory. Her contribution to this paradigm change will be presented concerning the dimensions that she summarized about competition in educational settings (Fülöp, 1997b, 2003a, 2003b), in organizations (Fülöp, 2006) and in different cultures (Fülöp, 1999b, 2002a, 2004; Fülöp & Sándor, 2006). Furthermore, we will present her findings from cross-cultural studies. In order to understand the paradigm change, it is crucial to take into consideration a multifaceted competition concept as it was detailed by Fülöp (1995). The paradigm change of competition regarding educational, organizational and cultural fields can be interpreted only if the concept of competition is deconstructed and its subdimensions are dealt with separately. On the basis of Fülöp’s (Fülöp, 1993, 1997b, 2000, 2002a, 2003, 2004, 2006) works these dimensions will be presented in the following part.

The multifaceted competition

On the basis of Fülöp’s review articles on competition in educational settings (Fülöp, 1993, 1997b, 2000, 2003), in organizations (Fülöp, 2006) and in different cultures (Fülöp, 2002a, 2004), the following dimensions can define or influence the nature of competition revealed in a situation: (1) perceived resources (limited or unlimited) and open vs. closed competition (2) time perspective (short or long term); (3) intensity (high, medium or low); (4) energy (that competitors invest or gain ); (5) spontaneous vs. structured competition (6) relationship between competitors; (7) used means and orientations; (8) morality (fair-unfair); (9) norms concerning competition (group, cultural); (10) fields and their values concerning competition; and (11) rewarding structure of competition. In the following we will present these dimensions from Fülöp’s perspective.
1. Perceived resources: open vs. closed competition

If there are only few winners or the desired rewards are limited as a result of the competition, at the end of the competition we can expect a lot of frustrated losers. In an educational context, it is the case if teachers evaluate only a few things, thus they constrain the circle of resources that students can achieve. As we have seen in the evolutionary theory of Charlesworth (1982, 1996), competitive strategies serve as tools in order to different scarce resources: food, shelter, partner, etc. According to Fülöp (1995), if competition is in a closed process, it is a sum-zero competition (as in Neumann & Morgenstern, 1953). Here, competitors with the use of different strategies can win only at the expense of the other rivals. In close or zero-sum competition there is a negative interdependence between rivals’ goal attainment. It was the case concerning Deutsch (1949a) and his followers’ competition concept. For example, in school contexts, a competition is closed if there is only one person who can obtain the best grade or there is only one student in the class who can acquire “the best math student” award. Furthermore, most of sport competitions are closed competition: at the end there is only one winner or one team of winners.

Nevertheless, there are several situations in which open competition takes place. In these cases, all competitors can increase their pay-outs. In educational contexts, if somebody would like to know better a foreign language than his/her classmates, there is no scarce resource; this student can learn as many words as she/he would like to. There is no negative goal interdependence either: both of them can learn the same words. Thus, both competitors can increase their pay-out at the same time. According to Fülöp (1995, 2002a, 2004), this competition serves to accomplish higher-order needs such as self-achievement, prestige or knowledge.

There is an important point concerning open and closed-competition; this is the perception of opened or closed nature of competition. There are situations in which resources are objectively limited, while in other cases the resources are only perceived to be limited. It can depend on the framing, norms and rules of competition. For example, a foreign language vocabulary learning competition can be interpreted by students as a closed-competition if they strive for the best student’s position. Nevertheless, it can be an open-competition if ranking in the class is not salient, but the emphasis is on the number of learned words. In this case, perception of the students hardly depends on how the teacher frames the competitive situation. Naturally there are many other factors beyond the teacher’s framing, such as personality of students, the norms of the class, cultural dimensions, etc. (Fülöp, 1995, 1997b, 2003a).
2. Time-perspective of competition

This dimension reflects on the competitors’ way of thinking about competition such as a short-term or a long-term process. Short-term competition is a one short win-or-lose situation, with well-identifiable winners and losers. In this case, the result is static and clear. Long-term competition is the opposite: it is composed of several win-or-lose situations, in which losing or winning once is not significant in itself. On the basis of cross-cultural comparisons between American and Japanese students, Fülöp (1999b) found that, while American students are characterized by shorter-term time perspective, Japanese students possess long-term time perspective in competition. That is why the former group puts greater emphasis on every winning or losing situation. However, according to Japanese students, a single won or a lost competition does not have an exaggerated meaning. These students conceive competitive situations as a phase in their self-development.

3. Intensity of competition

At the dawn of competition research, Moede (1914) gave a competitive exercise to 12-14 old pupils who were instructed to make as many dots as possible in the time allowed. No question the experiment resulted high intensity: “in some cases the competitive work was so vigorous that the pressure of skin against pencil drew a small amount of blood” (Young’s presentation in Moede’s experiment, 1936, p. 402). According to Fülöp (1995, 2001a, 2003), the intensity is determined by the subjective importance of winning, the high affective involvement, the frequency of competition, scarcity of resources and external pressures to enter into competition. However, there are broad individual differences concerning what is too intense or optimal. It strongly depends on the personality of the individual. The result of the very intense competition can be multifold: it can be the source of an innovation, it can promote the usage of unfair or aggressive tools and it can lead to exhaustion. The endurance of intense competition plays a crucial role. A short-term, but very intense competition can be exciting. Nevertheless, intense and long-lasting competition, is tolerated by only a few persons (Fülöp, 2001a, 2003).

4. Energy

A competitive process can be described on the basis of how it energizes participants (Fülöp, 1995). As we could see in the experiments conducted by Hurlock (Hurlock, 1927, cited by
Young, 1936) or by Erev, Bornstein and Galili (1993), competition appears as a facilitating drive. For Fülöp, competition can ginger up the individuals for achieving a better performance. In the same time, competition consumes energy or constrains creative thinking (Amabile, 1982). Competitors can become exhausted and empty if they focus only on winning at any stakes and cannot always evaluate the balance of forces. Tjosvold et al.’s studies (2003, 2006) showed that in optimal circumstances (ie. constructive competition, see in details later) competition can mobilize the energy of rivals.

5. Spontaneous vs. structured competition

According to Fülöp (2006), competition can be generated in a spontaneous and in a structured way. Spontaneous competition is based on the process of social comparison. In order for individuals to achieve (1) accurate self-evaluation, (2) self-enhancement and (3) self-improvement, they are motivated to compare themselves with others (Fülöp, 1995). In the case of spontaneous competition, individuals are not externally pressured to compare their behavior or performance to others’. It happens automatically and these comparisons can generate spontaneous competition. In this case, there are no explicitly based rules or rewards.

It is not the case when competition is structured. In such situations, the reward and punishment system are explicit and set up by an external source, such as an organization, school or sport association. In the case of structured competition according to Fülöp (2006) the motivational aspects of competition last only until the rewards are acquired. However, it is not necessarily true for spontaneous competition which is motivated by automatic social comparative processes. Finally, spontaneous and structured competition are not mutually exclusive forms of competition, they can run in parallel. For example, in organizational context a structured competition can reveal among employees which is based on the number of sold products. However, spontaneous competition can emerge simultaneously, as well. During this spontaneous competition for example employees can strive for the loyalty of the employer which is independent from the number of sold products.

6. Relationship between competitors

On the basis of Deutsch’s (1949a, 1949b) and his followers (Johnson & Johnson, 1974, 1979, 1995; Johnson, Maruyama, Johnson, Nelson, & Skon, 1981), competition can hinder interpersonal relationships. However, Tjosvold et al.’s work shows that, in the case of constructive competition, it can be the opposite (Tjosvold et al., 2003, 2006). According to
Fülöp (1995) the function of competition can be decisive in this respect. If competition serves as means of self-development or the best possible solution of the given-task, it is easier to preserve good relationship with the partner. Nevertheless, if during a competition the goal is beating the rival and not achieving the best possible performance the relationship between competitors can become more easily negative.

The relationship between rivals is mainly defined by the role that they attribute to each other. In most of the former laboratory studies, the perception of rivals was constrained. Among the few exceptions we can mention Abric’s (1987) results. However, in real life the representation of partner is colored by both positive and negative emotions (Fülöp, 1995 Fülöp, 2002a). On the one hand, the rival can be highly respected, and on the other hand, she/he can also be absolutely devaluated.

Fülöp (1998; 2001a, 2003, 2004) distinguishes four categories considering different relationships: (1) task or goal oriented relationship, (2) comparative relationship, (3) relationship in which the other is an enemy, and (4) friendly relationships. In the task or goal oriented relationship the partner has an instrumental function: on the one hand, the partner stimulates the other for doing his best, thus in an indirect way she/he improves the other’s personal development by serving as a comparative basis. That is why losing a good rival (or competitive partner) is a real loss if the relationship was similar to the above-mentioned one. The second category concerns comparative relationships. Here, the rival is similar to an etalon. The comparative reference point that he/she provides makes possible the self-evaluation of the competitor. None of the first two types of relationships require intimate relationship between rivals. In the third category partners see each others as enemies or obstacles that they would like to eliminate in order to achieve their own goals. This category is contrasted with the first one concerning ego- and task- orientation. In the first one, the focus is on the task, whereas, in the third one, the focus is on the obstruction of the other. In the fourth category, called friendly relationship, adversaries are friends who have similar fields of interest and goals. Their cooperative and competitive activities are strongly intertwined. During competition, they can learn several things from each other. Positive emotions are dominant in these kinds of relationships. According to Tassi and Schneider (1997) competition in friendly relationships can be destructive if it is mainly motivated by getting ahead of the friend. However, it can be constructive if the main motivation is achieving the best in a given field. Therefore, we can count on positive outcomes of competition in friendships if friends use it as a tool in order to perform better or resolve a task; motivations concerning beating the other is not in the focus of their attention. On the basis of Fülöp’s
studies, the first and fourth categories concerning relationship between rivals are frequent among Japanese students (Fülöp, 1999a, 1999b, 2002a, 2004).

7. Used means and the focus of the competitive processes

According to Fülöp (1995, 2003a, 2004), the relationship between competitors influences the used means and the focus of the competitive process. The above-described constructivity and destructivity of competition partly depend on the means that partners use. And it depends partly on the direction of the usage of these means, because those can be directed toward the self, toward the partner, both in a positive and negative manner, and towards the goal. Therefore, competitors who focus on their personal improvement and who make efforts to achieve in order to develop themselves can be called on the basis of Ryckman, Hammer, Kaczor and Gold (1996) self-development competitors. In a less fortunate case, the competitive process and means of competition are oriented towards the opponent and, here, if the aim is disadvantaging the other in order to win, competition turns to be destructive.

8. Morality in competition

This dimension of competition will be demonstrated in the following in details, because this aspect is central regarding our research topic.

9. Norms

Regarding competition, norms reflect on a collective agreement on what is an appropriate and what is an inappropriate manner and area of competition. Furthermore, norms include evaluations, acceptance or rejection regarding competitive behavior and they influence the behavior of the individuals who belong to a given-group (Fülöp, 1995). Norms appear in different areas, such as the workplace, sports and/or educational contexts. According to Fülöp (1995, 2003, 2008a), values of meritocracy can show good guideline for establishing optimal classroom norms concerning competition. On the basis of meritocracy, equal chances are required for the competitors, but achievements do not have to be similar. In this case, success depends on competitors’ aptitudes and efforts. In a system based on value of meritocracy there are rules of competition, and if somebody respecting these rules can win, the rivals and the given community accept it. Hence, if competitors behaved fairly in a meritocracy based competition, adversaries will focus on individual internal variables - aptitudes and efforts - during competitive processes. As we have discussed above, competition leads to better
interpersonal relations and constructive competition if its focus is oriented towards self-development - more efforts and improvement of abilities - and not on other factors, such as beating rivals.

10. Fields and their values concerning competition

In both school and organizational settings, general values behind competition have crucial importance. In the classroom, competition can be directed on attaining better grades, high achievement, better social skills, or in unfortunate cases, students can compete on who can underperform others (Fülöp, 2003). That is why, for a teacher or an employer, it is important to see the main domains or areas of competition; for example, there might be a structured competition between high-school students concerning admission of the best universities, but there is a spontaneous competition at the same time concerning the use of the most effective cheating techniques for obtaining good grades which are added to the entrance exam points. That is why, in several cases, values behind competition, in respect to different areas, have to be taken into account. As we mentioned above, values can appear in a broader cultural context, as well. Here, it would be too long to describe the relationship between different values and competitive behaviors. That is why in the following a longer part of these aspects will be presented in a detailed way.

11. Reward structure of competition

Even if ability of cooperating in a group has more and more educational importance, classical Western school-settings and parents highly evaluate individual performances. Similar patterns can be found in organizational evaluations, in which individual achievement is crucial in several respects. In school contexts, obtained grades can be interpreted as individual rewards. Grading in this way can increase the role of competition and provides a hierarchical system, because on the basis of grade averages students can be ranked (Fülöp, 2003). According to Fülöp, in a group situation, even if individually achieved grades would not play such an important reference point as in the above-mentioned institutions (it is the case in alternative educational approaches) competition cannot be eliminated. The above-mentioned spontaneous competition, based on social comparisons, will be revealed in a context in which a group of children is present at the same time. Grading students can canalize social comparative processes in a certain way in which academic achievement is the object of comparative trait. That is why, on the basis of Pepitone
(1985), results in school classes in which a grading system exists, can create an intensive competitive climate; on the contrary, the lack of grades can provide a moderately competitive atmosphere.

According to Fülöp (1995), these dimensions are useful in order to distinguish constructive and destructive forms of competition. This distinction is important because, on the one hand it renders possible the identification of circumstances and characteristics of constructive competition which makes possible to avoid competition’s previously measured negative consequences, and on the other hand, it can clarify circumstances and characteristics in which competition can become productive and harmless.

**Constructive and destructive competition**

In the following, on the basis of the above-mentioned dimensions, constructive and destructive forms of competition will be distinguished from each other. For this distinction, Fülöp’s (1995) groundbreaking work will provide guidelines. According to her definitions *constructive competition* is beneficial and fruitful for the competitors and the given community and it is a joyful experience, where the relationship between rivals can be characterized by friendliness with communication among each other in an open and trustful way. Furthermore, constructive competition generally does not lead to conflicts. From the perspective of the different outcomes of competition, in the case of winning, the competitor experiences joy and solidarity toward the loser(s); and, if an adversary loses, in constructive competition, the self-improvement and learning motives become prevalent.

However, *destructive competition* is harmful regarding at least one of the competitors. Moreover, in this type of competition rivals experience more frequently anger and envy; communication between adversaries becomes distorted by dishonesty and lack of trust. Regarding the outcomes of the competition, the winner’s self-enhancement motives becomes dominant and he/she gloats over the loser, whereas the loser accuses the winner of cheating and dishonesty, then he quits the situation and tries to be away from further competitions; in this latest case self-improving and learning motives are lacking.

Regarding the above-mentioned dimensions, constructive and destructive competition can be distinguished in the following way: constructive competition mobilizes *energy* of the competitors, which can be used for self-improvement, whereas, destructive competition wastes
energy, because competitors do not focus on the resolution of the task, but they concentrate on the competition itself. Moreover, constructive competition more probably happens in open competition circumstances in which resources are unlimited, while destructive competition more frequently takes place in closed competition in which scarce resources are exposed to competitors. Regarding the dimension of time perspective constructive and destructive competition are also divided: in a constructive competition competitors conceive competition as a long-term process, whereas, destructive competition can be characterized by short-term perspective. Regarding the used means and focus of competition, constructive and destructive forms can be distinguished, as well. In constructive competition the focus is oriented toward self-improvement and self-development, while in destructive competition it is oriented toward the rival. In this case, aggression can appear between competitors. Moreover, in destructive competition the weaker performance or failure of the rival can lead to satisfaction of the opponent. Morality and rule-keeping is a following dimension that has an impact on the constructive vs. destructive nature of competition. Constructive competition can be characterized by fair-play and clear criteria that are known by all of the competitors. Nevertheless, in destructive competition, rules are not fair, and inappropriate or evaluative criteria are unknown for at least one of the adversaries. Beyond these dimensions, controllability is another factor that has to be taken into account; in constructive competition the outcome of competition depends on the rivals: victory or defeat depends on their performance. Therefore, this type of competition can be characterized by equal chances. In destructive competition, the control over the outcome of the competition is in the hands of only one of the rivals, or none of them can control it. Therefore, destructive competition cannot be characterized by equal chances. Intensity of competition is the following important dimension that should also be taken into consideration. In constructive competition, high intensity leads to better performance and a “new and higher level of activity” regarding the given activity in which competition occurs. However, in destructive competition rivals are guided by the “end justifies the means” principle; adversaries do not hesitate to choose immoral tools; furthermore, their attention becomes narrowed because they focus only on the goal of competition (For summary see Table 2). These dimensions were detailed and adjusted to educational and organizational contexts in several subsequent works (Fülöp, 2001a, 2002a, 2006, 2008a)

After Fülöp’s conceptualization (1995), other researchers started to carry out researches in the field of constructive competition. Dean Tjosvold et al. were among the most important researchers among them. According to Tjosvold et al. “Constructive competition occurs when competition is a positive, enjoyable experience that results in increased efforts to
achieve, more positive interpersonal relationships, and greater psychological health and well being," (Tjosvold et al., 2003, p. 65).

<table>
<thead>
<tr>
<th>Dimensions:</th>
<th>Constructive competition</th>
<th>Destructive competition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utility:</td>
<td>Useful and fruitful for both competitors and the community</td>
<td>Harmful at least regarding one of the competitors</td>
</tr>
<tr>
<td>Emotions:</td>
<td>Positive emotions, friendliness</td>
<td>Negative emotions: envy, anger</td>
</tr>
<tr>
<td>Communication:</td>
<td>Open, trustful communication</td>
<td>Dishonest communication, lack of trust</td>
</tr>
<tr>
<td>Conflicts:</td>
<td>It does not lead to conflicts</td>
<td>Easily escalates conflicts between competitors</td>
</tr>
<tr>
<td>Results:</td>
<td>Victory results happiness, joy and solidarity toward loser(s) In the case of losing self-improvement is in the focus</td>
<td>Victory leads to self-enhancement and the winner gloats over the loser The loser accuses the winner with cheating, he quits the situation and avoids further competitions, the lack of self-improvement</td>
</tr>
<tr>
<td>Energy</td>
<td>It mobilizes energy that is invested in self-improvement.</td>
<td>Energy wasting, competitors concentrate on competition instead of the task.</td>
</tr>
<tr>
<td>Resources</td>
<td>Unlimited resources</td>
<td>Limited resources, zero sum game</td>
</tr>
<tr>
<td>Time perspective</td>
<td>Long-term process</td>
<td>Short-term process</td>
</tr>
<tr>
<td>Used means and focus of competition</td>
<td>Self-orientation, the focus is on the self-improvement, possibility of cooperation</td>
<td>Rival oriented: satisfaction if rival is defeated</td>
</tr>
<tr>
<td>Regulation and morality</td>
<td>&quot;Fair play&quot; Fair and appropriate rules, collectively constructed criteria of evaluation that are known by adversaries</td>
<td>&quot;The lack of fair play&quot; Unfair and inappropriate rules Criteria of evaluation are unknown for one or all of competitors</td>
</tr>
<tr>
<td>Controllability</td>
<td>The outcome of competition depends on the competitors Equal chances</td>
<td>The outcome of the competition is under the control of only one of the rivals or none of them Unequal chances</td>
</tr>
<tr>
<td>Intensity</td>
<td>High intensity increases productivity and efficiency</td>
<td>High intensity leads to &quot;the end justifies the means” attitudes</td>
</tr>
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Table 2. The main dimensions that determines constructivity and destructivity of competition on the basis of Fülöp's work (1995)

On the basis of Tjosvold et al.’s (2003) results constructive competition exists when fairness issues play a crucial role. In short, the fairer a competition is, the more constructive it is. Furthermore, their results suggest that neither the importance of winning, nor the degree of negative interdependence seem to undermine the constructiveness of competition. Interestingly, the importance of winning correlates positively with constructiveness of competition. Tjosvold et al.’s (2006) also show that the relationship between constructive competition and task vs. ego-orientation is weak. Therefore, even if since Horney (2004) through Lewis (1944a, 1944b), Deutsch (1949a), and back to Dweck (1986), egoistical aspects, ego-demands, ego-centeredness were among the most important aspects of competition, Tjosvold et al.’s (2006) results show that ego-centeredness does not look like a principal element of the destructive competition. Furthermore, the authors found that task-
orientation does not play a central concerning constructive competition. Another interesting result derives from the concerns of being forced, or not, to take part in a competitive activity. Tjosvold et al. hypothesized that, when an individual is required to participate in a competition by external pressure, the individual’s resistance may destabilize constructive competition. On the basis of Tjosvold et al. ’s results (2006), it is not the case. They found increased effectiveness of task work, personal benefits in self-confidence, social support, and learning, and finally stronger relationships in the case of an external pressure to win.

However, their results (Tjosvold et al., 2006) suggest that it is much better if internal motivation to compete is dominant. The more internal desire to participate in a competition was present when (1) the perception that competition increased one’s task effectiveness was more superior, (2) the feelings were more positive towards competition, (3) the perception of competition led to better benefits beyond winning, (4) the relationship with other competitors is perceived to be better, (5) the greater the desire to participate in competition, (6) moreover after the competition the internal pressure to win was higher, (7) the desire to have challenging project was greater, (8) and the perceived ability of collaboration with other rivals was higher. In sum while external pressure to compete does not reduce constructiveness of competition, an internal desire to participate in a competition however seems to have a powerful positive influence on constructive competition.

Beyond Fülöp (Fülöp, 1995, 2001a, 2007, 2008a) and Tjosvold et al. (2003, 2006) there were others, like Erev and his colleagues (1993) who worked in the field of constructive competition. In their experimental task, participants picked oranges – a physical work based on the speed of picking. In the experimental setting, groups of four persons participated. Three payoff conditions were set up: in the personal payoff condition participants were paid in an individual way on the basis of the quantity of oranges that they picked; in the team payoff condition they were paid on the basis of the team performance - thus, each of them received one quarter of the total group payoff -; in the competition condition the group was divided into two dyads and the more productive dyad got a bonus - this last condition was the intergroup competition and intragroup cooperation setting. The results showed that in the competition condition participants picked many more oranges in comparison with team condition. Moreover, they found that the effectiveness of competition was higher if the perceived productivity of groups was similar.

In a further study, Carnevale and Probst (1997) found that, in the context of intergroup competitions in an organization, competitive individuals cooperate at a higher level than cooperative persons. While cooperative persons are cooperative in a high level, independently
from the context, competitive persons can intensively cooperate and compete. This means that competitive persons seem to be more flexible, and depending on different situations they can be more productive. Therefore, in the case of cooperation, they can recognize the competitive advantage of cooperation, as well (Carnavale & Probst, 1997 cited by Fülöp, 2008a).

Beyond Fülöp (1995), Tjosvold et al. (2003, 2006), Erev (1993) and Carnevale and Probst (1997) who were oriented more or less explicitly toward the constructivity of competition, other researchers started to conceive competition differently from Deutsch’s heritage. Among them, Charlesworth’s conceptualization will be presented first. Charlesworth (1996) approached competition from an evolutionary psychological perspective. He did not interpret competition and cooperation as opposing behaviors. Nevertheless, he supposed that competition is an overarching concept which covers several different strategies. In this model, the proximate goal is to acquire or defend resources which are crucial concerning survival, growth and reproduction. According to his theory, resources can be described on the basis of their physical (food, territory, etc.) or informational (concerning environment, other individuals, etc.) nature. Moreover, in this model, similarly to Fülöp’s definition, competition is present in both intra-group and inter-group levels, and its presence depends on the scarcity or availability of resources.

Charlesworth (1982) analyzed the ontogenesis of political behavior from evolutionary psychological perspectives. During this analysis, he distinguished five different behaviors which can be interpreted in invariant ontogenetic time and each of them can appear in different domains, and not only in political competitions. The categorization starts with (1) aggression which covers physically and verbally violent behavior; (2) intimidation is the second category which contains threatening posture, face and words; (3) manipulation is a verbally arousing, appealing and ingratiating act which follows intimidation; (4) deception referring to secretive or misleading behavior is the fourth behavioral category; finally (5) compromising and collaborative behavior can be taken into account as cooperation. The degree of efficacy of these behaviors is relevant concerning the major ontogenetic tasks throughout the whole lifetime.

In sum according to Charlesworth (1982, 1996) the most effective and evolutionally stable strategy is combination of different, appropriate competitive strategies. The weight of these strategies depends on the given situation as well as on the behavior of the others. For Charlesworth, it is important to take into account that the use of these strategies in an adaptive manner has crucial evolational benefits. However, individual differences respecting to outweighing of some of these strategies can be the result of gene/development interactions;
hence, it is possible to count on individuals who can utilize their strategies in a more appropriate manner than others, considering the actual environmental demands and circumstances.

As a consequence of the adaptive or mal-adaptive combination of strategies, each member obtains a certain amount of resources relative to the invested efforts. Hence, individuals strive to obtain resources in order to satisfy their needs. Therefore, learning how to attract others to share their resources or cooperating with others in order to reach a resource is a basic developmental task for human beings. Here, as we can see, cooperation is interpreted as one of the effective competitive strategies. However, cooperation’s efficacy depends on how it is combined with other strategies in a given situation which is strongly shaped by the nature and possible distribution of resources and given situational factors. Finally, there is no evaluative distinction between the above-mentioned strategies, both can be useful depending on the situation.

On the basis of the above-mentioned theoretical basis, Charlesworth (1996) carried out a study in which 4-7 year old children participated in a task in groups of four. Groups were examined from four countries: USA, South America, India and Malaysia. In his experiment children have to cooperate in order to operate a movie viewer. Only one child of the four participants could watch the movie (scarce resource) among them. This activity was possible only if a second child pushed a button and a third child turned a crank. That is why even if only one them could watch the movie, two children had to work (cooperate) for it, the fourth child neither had a task, nor watched the movie. The behavior of the children was recorded during the task. Charlesworth found very similar results in different cultures:

1. A wide range of strategies were used such as commanding, yielding, pushing, seeking help or attacking, etc. in order to watch the movie.

2. Changing positions by pushing, offering, directing, were very similar in different cultures.

3. Children who dominated their group (alpha children) got the most viewing time. They cooperated (helped others to watch the movie) as much as delta children (who could watch the movie during the shortest period of time). Nevertheless, they cooperated more than the bystander children.

4. Alpha children tended to engage in commanding, directing and pushing also more often than delta children.
5. In great majority of groups cooperative behavior dominated, but resources were allocated in a very disproportionately among children who participated in cooperation.

6. The optimal strategy was asserting oneself over the others (watching movie, directing others to help) with occasional helping behavior, which characterized alpha children.

On the basis of Charlesworth’s theory, and results from an evolutionary perspective, resource-related problem-solving behavior conveys several components such as aggression, intimidation, manipulation, and cooperation. Children and supposedly adults also combine these strategies in order to achieve limited resources. Their behavior contains both assertive and cooperative elements; the optimal mixture of these strategies will be fruitful in a given context. This view is very far from the dichotomization of competition and cooperation. Furthermore, it is far from the negative evaluation of competition, as well. In this case, cooperation appears as a competitive strategy which was sub-optimal without assertive strategies.

Another fundamental article by Bruce Bonta (1997) can also help to redefine the concept of competition. He reexamined the literature on 25 peaceful societies concerning the role of cooperation, competition and individualism in their life with a purpose to contrast it to the Western-oriented psychological literature. He found that 23 of 25 societies see competition malignant and these communities linked it to aggression and violence. However, there are two societies in which competition is accepted and aggression and violence is not attached to the concept of competition. In the decisive part of examined 25 peaceful societies studied by Bonta, competition was a negative aspect of everyday life and cooperation was the opposite. Concerning the two exceptions, two questions were asked by the author: (1) Why are these societies competitive in contrast to all of the others? And (2) how does their competitiveness integrate peacefulness?

The first society mentioned by Bonta (referring to Willis, 1989) called Fifa is in Western Tanzania. This community is very peaceful; violence is never experienced in their villages. Nevertheless, competition pervades their business life and intense competition characterizes relationships between major families and their supporters. The presence of competition is explained in the following way: “Over 100 years ago, shortly before European contacts were established, the Fifa transformed their society from one based on violence and war into one based on nonviolence and peace. The change did not eliminate negative emotions such as hatred and anger, but it did transform their aggressiveness into positive,
Willis argued that their aggressive competitiveness is still constructive, affiliative, and peaceful.” (Bonta refers to Willis, 1989, p. 311). In this case, there is a violent historical heritage which is released by competition in the society. Therefore, this community is a very good example regarding how non-violent and very intense competition can exist simultaneously.

The second society, Jains, in India, shows similar patterns to Fifa society: it is quite peaceful and quite competitive at the same time (Bonta cites Sangave, 1980). Their worldview is based on “ahimsa” which means nonviolence. All the other values of the community are subordinated to “ahimsa”. In their society, committing theft or speaking of falsehoods also means violence. However, competition is permitted, because it does not violate their ethical system, that is why their businessmen are competitive and successful, and for example, this is the reason why they build their temples in a competitive way. In the case of Jains competition and non-violence seems to be compatible.

Bonta (1997) mentions three other societies in which everyday life has some competitive elements, even if these aspects are not very salient. Among these, the most interesting one is the Piatora society. Their whole mythology focuses on controlling competition (Bonta refers to Overling, 1986, 1989). In this community, there is a contradiction between competition and cooperation which also appears in the behavior of their leaders. These persons’ duty is to ensure the tranquility of their followers by idealizing humankind as a peaceful or calm and under-accentuate individuals. However, these leaders are very competitive in the political life, gathering good alliances and power.

Answering the questions concerning in what manner they are competitive and how it is possible to integrate competition with peacefulness, the first example can answer mainly the first one, while the other two examples provide answers to the second one. We have seen that, in the case of Fifa society, competition was one of the channeling of energies after the “systemic” change from violent to non-violent society. In order to answer the second question, even if according to Bonta these societies are “exceptions to the general pattern, they are able, perhaps paradoxically, to mix competitive and cooperative behaviors and still maintain their peacefulness” (Bonta, 1997, p. 312), we can see that the regulation of competition was very strong in both of them. In the first case, ethical norms are against violence in a very broad sense, while in the second case, the “the mythology focuses on the control of competition” (Bonta reffering to Overing, 1986, 1989a, p. 312) provides a frame of reference where rule-breaking in competition is out of question.
As we have seen, redefinition of competition resulted in different concepts. Fülöp (1995, 2001a, 2007, 2008a) and Tjosvold et al. (2003, 2006) detailed the dynamics and internal mechanisms of constructive forms of competition. Erev et al. (1993) as well as Carnevale and Probst (1997) provided good examples of how positive outcomes of competition and the intertwined nature of competition and cooperation appear in real-life contexts. Charlesworth (1982, 1996) conceptualized competitive strategies as a relatively broad set including cooperation, manipulation, aggression and other strategies which can be useful acquiring the resources. Bonta (1997) described societies in which competition and peacefulness co-exist hand in hand. However, the paradigm shift of competition occurred in the motivational and cross-cultural literature. In the following, the results of these studies will be presented.

Motivational and cross-cultural researches after the paradigm change

In the following, we will shortly present the effect of the above-described paradigm shift (Fülöp, 2008a) of competition on the motivational, cross-cultural and educational psychological literature. A more detailed description of such changes takes place in Appendix 2.

Competition and motivation after the paradigm change

As we have seen above in previous researches on motivational aspects of competition negative aspects were dominant. Generally competition was attached to performance goals that have negative impact on the positively evaluated intrinsic motivation. However, since the middle of 1990’s several researches contradict to the above presented results or refine our perception concerning the role of competitive processes in the field of motivation (Fülöp, 2008a). The positive impact of competition on intrinsic motivation and better performance in an educational setting were analyzed extensively by Judith M. Harackiewicz and her colleagues since the beginning of 1990’s. She is one of the pioneers (among Charlesworth, 1996; Fülöp, 1995, 2001a, 2008a; Tjosvold et al., 2003, 2006) after the period deeply influenced by Deutsch and his colleagues and other researchers (Alcock, Johnson & Johnson, Kagan, Madsen, Munroe & Munroe, Slavin) who contributed much to the “paradigm shift” (Fülöp, 2008a) concerning the reinterpretation of the role and concept of competition in the motivational literature.
Harackiewicz, Barron, & Elliot (1998) revisit the role of competition concerning different achievement goals, intrinsic motivation and performance. Their questioning is always around the optimal motivation which can provide high achievement motivation. According to Harackiewicz et al. (1998) it is important, on the one hand to see in which conditions performance goals can promote learning and motivation, and on the other hand it can be useful to analyze performance goals and their effects separately from mastery motivation. Both of these suggestions fit well to the research on competition. Social comparative aspects, and extrinsic motivational aspects are also relevant in the field of competition; hence, it can be fruitful to see in which conditions these factors can play a positive role concerning academic performance. Moreover, the performance vs. mastery dichotomy is very similar to the competition vs. cooperation opposition, both of them conveys a comparison between the two sides what Fülöp (2008) calls the “beast” and “beauty” paradigm (Fülöp, 2008a). In the case of mastery and performance goal-orientation Harackiewicz et al. (1998) reject the mutual exclusive and opposing effects of mastery and performance goal-orientations. They summarize several researches concerning this complementary nature of these goal-orientations, and they conclude that the two goal-orientations are independent from each other. Furthermore, there are cases in which the common presence of both can result in better performance, than one or none of them (i.e. Wentzel, 1991). Furthermore, on the basis of Harackievicz et al., the same is true not just for high performance but also about intrinsic motivation (active involvement in course, enjoyment of lectures, etc.). Both mastery and performance motivation in a competitive setting have the potential to heighten intrinsic motivation by the mediating role of competence (Harackiewicz et al. 1998).

In a study by Harackiewicz et al. (1997), it was found that performance goals did not influence their participant’s interest; however, students who had performance goals obtained better grades, than persons with lower performance goals. The pattern is the opposite in the case of mastery goals: students who had higher mastery goals at the beginning of the semester reported higher interest at the end of the semester. The authors found that mastery and performance goals had independent, positive impact on interest and performance, correspondingly. On the basis of their results, mastery personal characteristics are in relation with mastery goal which have a positive impact on interest. On the other side, personal competition orientation has a positive effect on performance goal which is in relation with the final grade.
Harackiewicz, Barron, Tauer and Elliot (2002) carried out a very similar study, in which they followed up students from the beginning of their studies until graduation. The authors found that the above-described effects of previously measured performance goals remained significant concerning future grades and academic grade-point average during the following semesters. However, mastery goals predicted the interest in the given subject across several semesters.

These results have several consequences concerning the evaluation of the effect of competition on educational outcomes:

1. When an individual has performance goals, and when this person strives to outperform somebody (which happens in school competition also), it has positive consequences concerning his school performance (grades). However, it seems to leave untouched his/her interest.

2. High-achievers’ intrinsic motivation rises in the case of competitive educational settings, however it is not the case among persons characterized low achievement motivation.

3. If a student is motivated by performance goals such as rewards and good grades or outperforming somebody else, he/she can be characterized by high mastery motivation, as well. This combination is several cases have similar, positive outcomes than in the case of high mastery goal orientation/low performance orientation. These aspects can be taken into account in the case of competition, as well.

4. The positive aspects of performance-approach goals seem to be independent from high level of mastery motivation.

These results can provide important components of the positive and constructive role of competition, regarding the clarification of mechanisms by which competition can be productive in educational settings. We have seen, in this part concerning motivation and competition, how the relationship between positive educational outcomes and performance goal-orientation (which are strongly linked to competition) changed due to the work of Harackiewicz and her colleagues.

Researches that revealed cultural characteristics of competition after the paradigm change

For the reinterpretation of cross-cultural studies on competition, Fülöp et al.’s review articles (Fülöp, 2002a, 2004; Fülöp & Sándor, 2006) provided guidelines. From the methodological
perspective, until the middle of 1990’s, the main stream did not put emphasis on the importance of qualitative researches. Instead, the game-theory based comparative methods were more dominant, similarly to the above-cited works of Madsen, Kagan and their peers, who analyzed the phenomenon of competition and cooperation. As it was mentioned above, game theory is probably not the best possible way to explore on the one hand the culturally embedded nature of competition. Furthermore, from the theoretical perspectives, studies after the paradigm shift take into consideration the above-described dimensions of competition; hence, they deal with it as a multifaceted and complex phenomenon that can shed light on more subtle cultural traits, than in the case of previous studies which treated competition as a unified concept, and in opposition with cooperation. Consequently, in the following the most significant research-project that incorporated the message of the paradigm shift both from the methodological and theoretical point of views, will be presentd.

Across several studies Fülöp attempted to resolve the so called Japanese paradox of competition (Fülöp, 1998, 1999a, 1999b, 2002, 2004). This paradox is rooted into two theoretical and empirical assumptions: (1) On the basis of previous and overarching cross-cultural and anthropological studies Japan (Hofstede, 1980) is categorized as a collectivist, group oriented society, where the cult of cooperation and harmony between individuals have long traditions. (2) Despite the fact that Japan is ranked as one of the most competitive societies in which competition in economy, politics and education plays principal role, where students talk about examination hell concerning school competition.

In order to resolve this paradox, Fülöp carried out a research to find out how this contradiction can coexist in Japanese society. She explored the emotions, cognitions, attitudes and visible dimensions of Japanese people’s concept of competition. For this reason, she created an open-ended questionnaire on the basis of interviews about competition that previously she carried out with Japanese teachers, public servants, businessmen, doctors and Buddhist priests. In the questionnaire, she asked Japanese youngsters about the concept, origin and focus of the competition. She analyzed the results of questionnaires on the basis of some of the above mentioned dimensions and categorizations. According to the first counter-intuitive results the majority of Japanese students interpreted competition in a positive manner. Furthermore, according to most of them competition has a situational origin, which means that for these individuals, competition emerges under the influence of specific situations, and only a minority claimed that competition derives from the personality of a given person.
Moreover, answers from Japanese students (Fülöp, 1999a, 1999b) also referred to the function of competition. In this group, competition’s main function is linked to development and motivation, while functions such as selection, help in goal-attainment, self-evaluation or pleasure finding were much less frequently mentioned. Finally, orientation and focus of competition were analyzed. Fülöp found that competitive process among Japanese rivals are most often oriented towards self in the form of self-development. Furthermore, very frequently their self-reported competition concept reflected on the development of the rival or the whole society.

Regarding the concept of the rival three main groups were distinguished (Fülöp, 1997b, 1998, 1999a, 1999b, 2002, 2004): (1) a neutral stimulator image who is part of the self-development, (2) a friend who is a competitor in the same time, (3) an enemy, however this group was the less numerous regarding the sample. According to Fülöp the high proportion of comparative and friendly competitive relationships between Japanese students is strongly shaped by the culture in which these individuals live.

Regarding time-perspective, according to Japanese students competition is a part of the life-long learning process. Winning and losing are chapters only in this learning process. That is why these students put more emphasis on the process of competition, instead of the results of it.

Both concepts, function, orientation, focus of competition and the perception of other competitors can be explained with the above described paradox. Cooperation and collectivity centered, harmony based cultural values can not support dog-eat-dog, unfair competition. Nevertheless, these values give place for constructive competition which can improve the self and the society and where competitors function as a ladder for the individual towards higher personal and collective achievement (Fülöp, 1998a, 1998b, 1999a, 1999b, 2002, 2004).

Finally, societal control and regulation have a very important role in the creation of such constructive competition, in which on one hand high intensity and productivity, on the other hand self-improvement and society developing functions of competition are present in the same time. In Japan this control is based on cultural ideals where the model is a person who can take into consideration others’ needs during his/her satisfaction of their musts; and who is very motivated to achieve in a high level. Therefore, society puts an intense pressure on its members to learn how to harmonize their individual and collective goals in a self and collectively constructive and productive way.
In the following instead of the more extended description of previous cross-cultural researches concerning the concept of competition, the focus will be oriented toward previous Hungarian and French results that incorporated the findings of the paradigm shift.

Previous researches on competition with Hungarian and French participants – a summary

In this part, results from French and Hungarians participants will be summed up; later further researches on Hungarians results will be presented. As we will see, we have much less information on French characteristics of competition, however Hungarian results are much richer.

On the basis of Hungarian-French comparison the authors (Roland-Lévy, Fülöp, & Berkics, 2009) found subtle differences between participants from the two cultures. The results concerning the French side showed the following:
1. The central core of French high-school students’ social representation of competition contains victory and sports, however negative aspects appeared in such as rivalry and defeat appeared in the periphery
2. French students dislike interpersonal competition
3. French students perceive more positively economic competition
4. According to the majority of French teenagers, hard work results positive outcome (perception of the value of merit in competition)
5. Even if French students have generally positive view on competition, they see it more stressful, uninteresting and de-motivating, than Hungarians do.

On the basis of the same study, Hungarian high-school students (Roland-Lévy, Fülöp, & Berkics 2009) can be characterized in the following way:
1. Their social representation of competition contains victory and sports, however negative aspects appeared in the periphery such as rivalry and defeat
2. Hungarian students dislike economic competition
3. Hungarian students see more positively interpersonal competition
4. According to the minority of Hungarian students, hard work results positive outcome (perception of the lack of the value of merits in competition)
5. According to Hungarians, competition motivating, good, important, useful and interesting.
In the following, we will focus only on the Hungarian samples’ characteristics concerning competition. We will start this summary with pupils and students, later teachers’ and finally businessmen’s results will be presented. Firstly, we will summarize the results on the basis of the Japanese, Hungarian and USA comparison (Fülöp, 1999b).

1. When students were asked about the societal role of competition the main areas of competition among Hungarians are economy, competition for money, politics, competition for jobs and competition for sheer survival. Competition in educational system was not so prevalent than in the above mentioned areas. Both Japanese and American students mentioned two times more frequently this area, than their Hungarian peers. On the basis of these results we can see that Hungarians mainly concentrate on areas which are relatively far from their everyday context. Therefore, the link can be interpreted as quite weak between their everyday experiences and the societal role of competition. Moreover, money-earning or obtaining jobs are important for them which refer to their money orientation in the context of competition, and it reflects on their need for a secure job achieving by competition.

2. Hungarians more frequently mention negative attitudes towards competition than American or Japanese students.

3. Hungarians perceive less frequently the positive consequences of competition among the three samples.

4. 40% of Hungarians talked about conflict and aggression, 25% immorality and approximately 20% self centeredness; pragmatic, money oriented people as a negative consequence of competition.

As a result of a comparison between Hungarian and UK secondary school students (Fülöp, 2002c) concerning Hungarians the main following results were found:

1. According to them competition plays a very important but negative role in the society and they perceive it very intense

2. Negative consequences of competition such as immorality, interpersonal conflicts and aggression and money-oriented people

3. On the basis of this perception, in general Hungarians want winning at any costs and by any means, where the end justifies the used means because of the lack of rules and regulations.

On the basis of the comparison between Hungarian and UK students’ socialization of coping with competition, winning and losing (Fülöp & Berkics, 2003) the authors’ conclusion is the following:
1. “Winning is everything” according to the one-third of the asked Hungarian students, but for the half of them winning is important

2. Hungarians concentrate mainly on specific goals and not on broader accomplishment or learning, improvement, etc.

3. They mentioned more consequences of competition, which reflects on their result orientation

4. 39% wrote activating and 26% deactivating negative emotions in relationship with losing

5. 40% of them constructive reaction to losing such as learning from his/her mistakes and 23% mentioned destructive reactions (i.e. long-lasting discouragement, loss self-confidence, self-blame, etc.).

On the basis of the comparison between Hungarian, Slovenian and English primary school children’s view on competition (Fülöp, Ross, Kuscer & Pucko, 2007), we can describe the Hungarian sample in the following way:

1. Hungarian students see that teachers rarely discourage and frequently encourage competition in different ways, such as being happy (reinforcement) if a student gets a good result in a competition or giving various rewards.

2. Hungarian pupils have positive attitude towards competition

3. For these children the result of competition, especially winning in a competition is very important

4. As a consequence of it sometimes they use unfair tools as lies

5. Conflicts of competition frequently caused by cheating

In the following results will be presented regarding Hungarian teachers. Fülöp et al. compared (2001) UK and Hungarian teachers’ concept of citizenship, entrepreneurship and competition.

The results concerning Hungarian teachers were the following:

1. Two-third of Hungarian teachers said that one can be a good citizen and a good entrepreneur in the same time, 35% doubted that.

2. This 35% accused both economic environment, both human nature (selfishness and greed) as a reason for the incompatibility between the concept of good citizen, good entrepreneur and good competitor in the same time.

In a further study, Fülöp et al. (2004) examined the perception of corruption as a conflict between citizenship and enterprise in a competitive environment among British and Hungarian teachers. According to the results:
1. The majority of Hungarian teachers would not behave in a corruptible way in hypothetical competitive situations (similarly to UK teachers).
2. All of them mentioned that transparent employment in such situations do not happen in Hungary because of the importance of nepotism and connections.
3. Hungarian teachers emphasized less the meritocracy-based values, trustfulness, the respect of fairness and equal opportunities in a competitive process when they explained why they would not compete in an immoral way.

In a study from 2008 Fülöp asked in an open-ended question Hungarian primary and high school teachers’ opinion about the role of school in the preparation of competition in life.

1. 30% of teachers mentioned the dimension of morality spontaneously for this question. The answers were categorized in two main groups.
2. According to one part of the teachers the task of the school can not be the preparation of students for the very cruel and immoral “real-life” competition.
3. According to the other group school is reinforcing not moral but immoral competition and prepares students in this way to dishonest competition after school years. According to them academic cheating is inherent part of exams, which leads to further immoral competition (Fülöp, 2008b).
4. 17 percent of the teachers saw linear relationship between the positive value of success and interpreted competition as a positive way to achieve it. Whereas 68% of the teachers declared a very negative picture about this relationship.
5. For this latest group succeeding in Hungary depends on dishonest behavior such as cheating in competition, usage of favoritism or relations instead of merits like knowledge or efforts.

In a recent research Fülöp (2008b) compared Hungarian, Japanese and Canadian respondents’ way of thinking concerning the relationship between competition and succeeding in their country.

1. 38% of Hungarian respondents described immoral, unfair and aggressive competition as a tool for success.

In a third study from the same year Fülöp (2008c) examined Hungarian university students’ cognitive, affective and behavioral responses to winning and losing if competitors keep the rules or they break them.

1. Honest winners felt more pleasure, satisfaction and proud; they did not feel guilt or shame.
2. Dishonest winners felt less pleasure than honest winners and was mixed up with guilt in several cases, gloating over appeared in their response.

3. Losers of honest competition felt disappointment, however losers of dishonest competition felt anger – the first is productive, the latest is counter-productive concerning further efforts and coping.

4. In a honest competition the winner cares about loser, in dishonest competition dishonest winner distances himself from the loser.

5. In a fair competition the loser congratulates to the winner and makes efforts to win in subsequent competitions, while in an immoral competition the loser tries to prove former cheating of the rival. Furthermore, he/she does not make further efforts and becomes suspicious concerning the fairness of ensuing competitions.

In the most recent study (2009) of Fülöp observed how Hungarian teachers regulate competitive processes in during the class.

1. Teachers indirectly encouraged unfair competition between students in the way that rule-breakers were not punished in different tasks.

2. Their rule-observing, rule-keeping and monitoring function did not work effectively.

3. Teachers rebuked pupils who reported cheating. However, the observers saw that they were right.

Regarding businessmen’s concept of competition one study will be mentioned here. Fülöp and Orosz (2006) examined the perception of competition in the Hungarian economic sphere on the basis of 187 in-depth interviews with businessmen. This study concentrated on the main dimensions and categories of Hungarian business competition. The interviews showed a mostly negative picture:

1. The proportion of positive aspects – the motivation to achieve, the required business skills – is much lower than the answers concerning the negative characteristics.

2. The respondents mentioned the immaturity of business competition in Hungary.

3. They referred to its Social-Darwinist and unregulated nature.

4. On the basis of the interviews businessmen describe each others in terms of short term way of thinking.

5. They are characterized by exaggerated money orientation.

6. Finally, immoral practices appear very frequently when businessmen talk about Hungarian business competition.
As we have seen on the basis of this summary, French students’ concepts, perception or social representation on competition is not an extensively researched topic (Roland-Lévy, Fülöp, & Berkics 2009). However, Hungarian students, teachers and businessmen were examined by Fülöp and her colleagues in several studies (Fülöp, 1999a, 1999b, 2002b, 2002c, 2008a, 2008b, 2008c, 2009; Fülöp & Berkics, 2003, Fülöp et al., 2004; Fülöp, Davies, Hutchings, Ross, Berkics, & Floyd, 2001; Roland-Lévy, Fülöp, & Berkics 2009; Smart et al., 2005).

On the basis of these studies, we can see that immorality is a central dimension, which appears in Hungarian students, teachers and businessmen’s concept on competition; especially when they talk about Hungarian business life. This competition can be described by a specific goal-orientation, in which competitive processes gets less emphasis. Other results show that the Hungarian goal-oriented competitors are perceived as individuals who use unfair strategies. For example students in some cases lie for winning, and in other cases they can be characterized by “the end justifies the means” attitudes. Furthermore, among teachers, there is no consensus regarding how to educate and socialize pupils and students towards honest competition; often, they see that fair strategies do not work in the “real life”, beyond school context. Probably, for the same reasons, based on their perception on the Hungarian society, a great proportion does not see how to join together roles of a good entrepreneur, good competitor and good citizen. Instead of possible solutions which concerns individuals, they blame societal conditions.

In sum, the above-mentioned results and arguments show a picture concerning the immorality of competition which causes several problems in the Hungarian educational system (see the most prominent results of Fülöp, Rosss, Kuscer & Pucko, 2007; Fülöp, 2008b). Also, according to the results, this context does not socialize students on rule-keeping behavior (Fülöp et al., 2004; Fülöp et al., 2001). Furthermore, students do not mention education as a typical area of competition in Hungary (Fülöp, 1999a), even if they are encouraged in a high level to compete with each others in comparison with other European countries (Fülöp, Ross, Kuscer & Pucko, 2007). Additionally, after school years, when Hungarian students start to work and getting a job in the young and very intensified competitive market economy (Fülöp & Orosz, 2006), these immoral strategies can “wake up” or start to be used in a more extensive way, than within the school, which is not seen as competitive as business sphere (Fülöp, 1999a). Moreover, business life was perceived in several researches as a competitive area where immoral strategies are the most salient (Fülöp, 2008b; Fülöp et al., 2004; Fülöp et al., 2001; Fülöp & Orosz, 2006).
That is why my interest firstly turned toward the exploration of immoral strategies that businessmen report, and how they see the causes of this kind of competition. Therefore, during my PhD work, I was interested in the research on how these strategies appear in the last step of the education of businessmen. Hence, I intended to see the social representation of competition and its immoral aspects of tomorrows’ businessmen who at the present time study business, economy and other related fields at the university level. As we have seen above, for example concerning Fülöp’s (1999, 2004) Japanese study, or in the case of Bonta’s (1997) analysis on different societies’ concept of competition can provide a deeper insight on the understanding of culture-specific traits of this phenomenon. That is why I attempted to carry out a Hungarian-French comparative study. On the basis of the above presented summary, French students’ concept or social representation on competition is an understudied research topic. Therefore, I considered it worth to examine in a more detailed manner the social representations of competition and issues related to its immoral aspects of French business students, along with other students, who have very different historical, economical and cultural heritage than Hungarians.

Therefore, in the following, taking into consideration Doise’s (1984) and Kirchler’s (2007) distinctions between different levels of analysis, the relationship between competition and immorality will be presented. Consequently, we want to characterize (1) personality factors that might be taken into account concerning usage of unfair competitive strategies; (2) situational variables such as scarce resources, control of competition, various external pressures, etc. impact on generation of unfair competition; (3) conditions in which competition between groups becomes constructive or destructive and unfair; and (4) cultural differences between perception and usage of immoral strategies in competitions.

Different levels of analysis which can influence the appearance moral/immoral aspects of competition

Intra-individual level concerning immorality and competition

Intra-individual level concerning immorality and competition can be described on the basis of the knowledge of the rules that individuals have to respect in order to compete in a fair way. Therefore, we will start with a discussion on this topic. As we mentioned above, competitions can be described on the basis of their structured and spontaneous nature. In structured
competitions such as sport games, there are clear rules, however in spontaneous competitions frequently it is not the case, because generally they are based on norms and not explicit rules. Therefore, in this part we will focus on structured competitions in which competitors have dissimilar knowledge about the explicit rules. Later individual differences that can influence the behavior concerning the inclination in practicing unfair competitive strategies will be discussed. Here, we will overview personality factors by mentioning the concept of Machiavellianism (Byrne & Whiten, 1988) and competition for resources (Hawley, 2003, 2006). Later, Ryckman et al. (Ryckman, Hammer, Kaczor, & Gold, 1990, 1996) et al’s categorization on self-developmental and hypercompetitive personalities will be presented. Following this section, we will discuss Fülöp’s categorization of different personality traits concerning competition (Fülöp, 2006).

Knowledge about rules is the basis of the observation of rules in a competition. As Erich Kirchler demonstrated in his book tax compliance is in positive relationship with the knowledge about taxes (Kirchler, 2007), similar results can be expected in sports or educational settings, as well. For example McCabe, Treviño, and Butterfield (2001) emphasize that existence of honor codes (explicit rules about what is cheating or plagiarism in school settings) reduce cheating in American Universities. It can be true for the existence of rules competitive school situations as well. Not the sheer existence of rules, but knowledge of the competitors about these rules is more important. In economic life Budzinski (2003) distinguishes intrapersonal and interpersonal rules in competitive economic context. In this distinction interpersonal rules are defined by institutions which regulate and coordinate individual behavior. However, intrapersonal rules are based on conscious and subconscious cognitive theories which guide behavior on the basis of the perceived context of action.

On the basis of Budzinski (2003) well functioning institutional rules can be interpreted as “interpersonal stores coordinative knowledge”, this knowledge differs from individual knowledge which is basically possessed by an individual economic actor. Therefore, a good fit between individual and interpersonal rules provides security or predictability, however the lack of harmony between them results insecurity and unpredictability. The mismatch of intrapersonal and interpersonal rules effects inhibited efficiency and adequateness of purposeful institutional evolution in economic competition. However, according to the author, during a competitive process individuals can learn from the effects of the institutional
framework concerning this harmonization. In this case, we can see that the development of matching between intrapersonal and interpersonal rules is important in economic life, as well.

The basis of this harmony is the knowledge of the institutional rules or framework, without this step developing towards harmony is impossible which results lower efficacy in longer term. In sum, knowledge on rules has importance in sports, education and economy in order to participate in moral and succeed in competition. However, relationship between knowledge on rules of competition and moral competition is not so evident than in the case of tax compliance, where deeper knowledge on taxes is in positive relationship with tax compliance. One thing can be taken for granted: knowledge of rules of competition is necessary for keeping them.

Another group of individual factors concerns personality and individual differences concerning competition. We start the analysis with the relationship between Machiavellianism and competition. Machiavellianism can be defined as a behavior in which an individual uses, manipulates or deceives another person as an instrument in order to achieve his/her goals (Byrne & Whiten, 1988). In the framework of Hawley’s (2003, 2006) resource control theory which is based on Charlesworth’s (1996) thoughts, approach Machiavellianism from the point of view of resource acquisition. This theory suggests that various strategies of resource control have to be taken into account in human social groups. Individual differences exist in strategies concerning their prosocial (socially acceptable way for example cooperation) and coercive (aggression, threatening others) nature.

Using these strategies, individuals can be categorized in the following groups: (1) prosocial controllers – they are above average in situations which requires cooperation and reciprocity; (2) coercive controllers – they are above average when they have to control resources in aggressive or threatening way; (3) typical controllers – they are characterized by average scores on the first two scales; (4) noncontrollers they are low in both scales; and (5) bistrategic controllers – who are above average on both coercive, both prosocial control. The authors found that bistrategic individuals are mixing prosocial and coercive strategies well and they are the most adaptive. These individuals’ profile is highly complicated, they are on one hand highly extraverted, they have very good social skills, they see very well their impact on others and they are intrinsically motivated to make relationships with others, on the other hand they use hostility, aggression and cheating in situations which these strategies let them acquire the most possible resources in competitions.

In spite of aggression, these individuals have a good reputation in their group. Therefore, Hawley (2006) calls bistrategian group Machiavellians, because they resemble to
the description of Niccolo Machiavelli’s effective leader. This view differs from the previously used Machiavellianism concept which refers to its social pathological aspect. However, here Machiavellianism is a very effective resource acquisition strategy. On the basis of her empirical results she says the followings: “Here Machiavellianism refers to an apparently effective approach that entails the careful balancing of „getting along” and „getting ahead”. These children admit that they are aggressive (the most aggressive), claim to be hostile, and confess that they cheat in school. Peers also cast them in a similar light and report them to be the most aggressive children in the schoolyard. Yet they are also seen as effective, socially central, and are reasonably well liked.” (Hawley, 2003, p. 299). It is more interesting that these individuals hide their coercive strategies from authorities. For example, teachers of bistategic pupils examined in the above mentioned research do not see their coercive strategies; however, their aggression was seen by the peers. Concentrating on our specific interest, school cheating among bistategic and coercive pupils had the highest mean among the above mentioned five groups (they share this first place with coercive group who has exactly the same mean in this respect). Therefore, on the basis of these results Machiavellian behavior which combines prosocial and coercive strategies and which seems to be a very adaptive strategy is probably in relationship with cheating in competition for scarce resources.

After the presentation of possible relationships between Machiavellianism, competition and cheating, we will turn our focus towards a distinction between hypercompetitive (Ryckman et al., 1990) and self-developmental (Ryckman et al., 1996) personality traits. Such personality differences can also influence the appearance of unfair competitive strategies. In the creation of a self-developmental competitive scale Ryckman et al. (1990) theoretical basis was Horney’s work (2004). On the basis of these assumptions a hypercompetitive person has very strong need to compete and win at any cost, she/he maintains and enhances her/his self-worth by competition, she/he is not afraid of manipulating or exploiting others or being aggressive with them in order to win. Furthermore, Horney (2004) found a strong link between this kind of competitiveness and neurosis in the 1930’s American cultural context. Therefore, on the basis of these assumptions Ryckman et al. (1990) created a hypercompetitiveness scale. A hypercompetitive person feels himself/herself more powerful if he/she wins in a competition, he/she competes in vide variety of situations which are not supposed to be competitive initially, he/she sees his/her opponents as enemies, winning make him/her feel superior to others and it enhance his/her self-worth, he/she feel envy if others win, see the world as a place which is characterized by dog-eat-dog
competition, he/she disturbs his/her opponents during competition in order to win, he/she cannot stand losing, he/she is reward-oriented, he/she is rarely satisfied with his/her performance during a competition. Beyond these characteristics hypercompetitive persons are high in neuroticism, dogmatism and mistrust. Moreover, they are low in self-esteem and optimal psychological health. Finally, they reported inclination to be violent if they are threatened. In sum, hypercompetitiveness does not seem to be a well-adjusted and adaptive strategy, instead it is socially maladaptive. Winning is very important for them, they are reward oriented, they are not afraid to use unfair strategies in order to win, therefore we can expect that individuals who are high in hypercompetitiveness will use more unfair strategies in competitive processes.

In another study, Ryckman et al. (1996), using the assumptions of Sampson (1989) who opposed to self-contained individualism (which is close to the notion of hypercompetitiveness) with ensembled individualism – which is based on shared and common process of self-improvement where goals of an individual is deeply interwoven with others’ purposes –, created a personal development competitiveness attitude scale. Individuals who obtain high scores on this scale can be characterized in the following way: they enjoy competition because it helps them to discover and develop their abilities; they learn from competition; it gives the possibility to make friendships, get closer to their opponents or contribute to the well-being of others; finally, competition motivates them to self-achievement and doing their best. Individuals high in this scale show lower neuroticism, optimal psychological health, higher self-esteem and affiliation with others. The authors did not find correlation between scores on this scale and self-reported aggression, dominance and exhibitionism. Persons high in personal development competitiveness are strongly motivated to win, however not at the expense of others. Moreover, they are less influenced by social comparisons, they stand losing, and which is more important they conceive competition as a learning possibility. Therefore, these persons are motivated in a competition, but they can cooperate also in the same time.

Here, we can see the mixture of motives again, in which competitiveness and cooperativeness are compatible, and convey several positive consequences such as low neuroticism, psychological health, high self-esteem and affiliation. On the basis of this description fair competitive strategies are more probable, because in this case winning is important, but self-development is in the focus. In a competition where a competitor is concentrating on his/her development and not the goal (result or reward) of competition cheating would be a self-deception. As a consequence of it, frequency of unfair strategies is
expected to be lower among individuals who are high in personal developmental competitiveness.

Fülöp (2006), on the basis of Ryckman et al.’s categorization (1990, 1996) on hypercompetitive and personal developmental competitive traits, distinguished different personality characters concerning their attitudes towards competition and cooperation. The first category covers individuals who are able to cooperate and compete in a high level; she calls them as levelly competitive persons. In the second group there are people who compete in a high level without the ability of cooperation. In this group we can find persons who belong to Ryckman et al.’s (1990) hypercompetitive category. There are individuals who can cooperate effectively, but who are low in competitiveness. Cooperative individuals can be categorized into this category. Finally, individuals who are neither competitive, nor cooperative take place in the asocial or individualist group. This empirically not yet underpinned categorization fits well Hawley’s (2003, 2006) theory and empirical results. Both of them suggest that individuals are the most adaptive (1) who use competitive and cooperative strategies also in order to get the best outcomes, and (2) who use prosocial and coercive strategies adapting to the given situations. The response set of the persons who are equipped with double strategies are more adaptive in a wider variety of situations, than individuals who master only one or none of these strategies. However, the question arises: How it would be optimal to define the number of strategies for succeeding? Is this the royal way to assume only competitive and cooperative strategies? Would it be better to suppose only prosocial and coercive strategies? Or maybe Charlesworth (1996) was right by supposing more than two strategies such as aggression, intimidation, manipulation, deception and cooperation which can be all necessary competitive strategies to acquire the most possible resources?

Morality of competition in intragroup and situational level

Deutsch (1949a, 1949b) identified competition’s negative outcomes in comparison with cooperation. Researches, using the framework of game theory and/or Deutsch’s basic assumptions, identified several consequences concerning performance, interpersonal relationships, learning efficacy, intrinsic motivation, mental health, self-esteem, etc. of competitive experimental settings. Much less empirical, social psychological research was oriented towards situational factors which influence moral dimensions of competition.
Educational psychology contributed also to the exploration of this segment of area, mainly from motivational perspective of competition and academic cheating from its immoral part. Furthermore, economic research produced empirical evidence in this field concerning decision making, as well. In these researches the question generally is around competition whether encourages or discourages cheating. Therefore, in these studies competition is present as a contextual factor which can increase or decrease cheating. Unfortunately, in several cases refined, post-Deutsch aspects of competition’s definition are not present. In several cases we do not know which aspect of competition results more or less immoral strategies, such as cheating. We will now summarize firstly social and educational psychological, later economic behavioral researches in this field. In the ensuing part, prospect theory and its consequences in cheating processes will be presented. Both in psychological, and in economic researches mainly educational settings are presented, which fits well to our research project. We will therefore start this presentation with educational psychological researches.

Probably the first empirical study that measured the impact of competition as a situational factor on prevalence of academic cheating was carried out by Smith, Ryan, and Diggins in 1972. In this study (1) personal characteristics, such as need for achievement, test anxiety, motives, moral standards, guilt and self-esteem, and (2) situational variables as goals, sanctions, facilitating or interfering conditions, (3) and norms were measured concerning moral behavior of the students. The results of this research show that competition for grades was among the two strongest external sources of pressure concerning students’ cheating. Relationship between competition for grades and frequency of cheating was the strongest correlation in boys’ group (r=0.49), and the second strongest correlation amongst girls (r=0.35) among all of the measured situational variables such as school requirements, large work load, lack of time for studying, parents’ pressure, peer pressure and desire for regard of instructor. The authors emphasize the crucial role of competition for grades in cheating.

However, Smith et al. (1972) found inverse relationship between competition for grades and cheating. More than two decades later educational psychologists start to reexamine this relationship again. During these decades another aspects of competition, achievement motivation and performance vs. mastery goal orientation’s impact on academic cheating was examined. For example Patrick B. Johnson’s (1981) found that high-need achievers cheat more, than low-need achievers. Therefore, he asked in his discussion that whether means or goals are more important for high-need achievers. After the focus on high- vs. low need for achievement different, competition-related personality types were analyzed in competitive situations. In Perry, Kane, Bernesser and Spicker’s (1990) research Type A and Type B
students participated in competitive and non-competitive situations in which they have the possibility of cheating. According to Friedman and Rosenman (1974), Type A personalities are highly competitive, ambitious, impatient, not relaxed and sometimes aggressive, while Type B personalities are patient, relaxed, not urged and high achievement does not play a crucial role in their life. The authors found that Type A participants cheat more than Type B subjects both in competitive and non-competitive situations. Type of personality and possibility of cheating had impact on cheating behavior. Therefore, in this study the competitive condition does not influence cheating behavior in neither among Type A nor Type B personalities in comparison with non-competitive situation.

On the basis of Smith et al.’s (1972) and Perry et al.’s (1990) results Whitley (1998) in his comprehensive review on individual and contextual factors which influence academic cheating categorize competition for grades such as a variable which have medium positive effect on academic cheating. We have to take into account at this point competition for grades as a very specific type of competitive activity. As we have seen above, there is a wide variety concerning goals that can appear in academic competitions, competition for high grades is only one of them.

Educational research also approached the problematics of competition and cheating from motivational perspective. The milestone of these researches was the work of Anderman and Murdock and their colleagues (Anderman, Griesinger, & Westerfield, 1998; Anderman & Midgley, 2004; Anderman & Murdock, 2007). Anderman et al.’s article (1998) focuses on motivation and cheating during early adolescence. The basic assumption concerns that performance and extrinsic goal orientation is in positive relationship with cheating, however students who are characterized by mastery and improvement goal-orientation are less likely to cheat. According to the authors students who strive for good grades in order to demonstrate their ability cheat more in comparison with students who are mastery oriented. However, not only personal goal-orientations have to be taken into account according to these authors, but classroom and school motivational levels have to be taken into consideration. Therefore, according to the authors beyond individual characteristics, performance-oriented classroom climate and school culture can enhance academic dishonesty, as well. That is why the authors hypothesized that students who are extrinsically goal oriented, who perceive classroom extrinsically oriented and see their school as being performance oriented cheat frequently. The authors justified their hypothesis; they found higher personal extrinsic motivation and greater perception of school performance goal-orientation among cheaters, than non-cheaters. Moreover, they found positive correlation between personal, perceived classroom and school
performance-goal orientation and cheating behavior, whereas both of three levels of mastery motivation correlated negatively with cheating behavior. Finally, logarithmic regression analysis showed that perceived classroom and school performance orientation had a significant impact on cheating behavior. In this article the authors did not mention explicitly competition as a part of extrinsic or intrinsic motivation. There is only a theoretical link between performance goal-orientation and competition, none of their questions referred to competition.

In the case of another frequently cited article by Anderman and Midgley (2004) there are references, such as Brandes (1986), who found higher rate of cheating in high achiever or better performing schools than in low achiever or worse performing schools. However, the authors did not explicitly mentioned previous researches which empirically underlies that competitive (and not high achiever or performance-goal oriented) classroom or school setting is in positive relationship with higher cheating prevalence. The explanation is always indirect: competition is a form of performance-goal orientation. Thus, the interpretation is implicit: in competitive school or classroom settings positively evaluated mastery-goal orientation gets less emphasis. Therefore, the authors (1) identify performance goal orientation with competition in classroom and school situational level (2) do not take into account the mutual presence of mastery and performance goal orientation concerning competition, (3) do not take into account the literature which relates competition with intrinsic motivation, (4) they do not take into consideration constructive form of competition, (5) and they do not distinguish different above mentioned dimensions of competition which can be interpreted in situational level (i.e. perceived resources, open vs. closed nature of competition, time perspective of students, reward structure, domains and values, perceived controllability, etc.).

This simplified competition concept appears in their book on academic cheating (Anderman & Murdock, 2007). The introduction of the book shows well their attitude towards competition: “Competition is perhaps the single most toxic ingredient in a classroom, and it is also a reliable predictor of cheating. Eric Anderman and others (Anderman et al., 1998; Anderman & Midgley, 2004) discovered a significant relationship between competitive educational settings and the extent to which students cheat, including students who acknowledge it is wrong to do so. The precise respects in which competition is harmful may describe independent paths to that outcome. Competition typically has an adverse impact on relationships; it often contributes to a loss of intrinsic motivation; it undermines academic self-confidence (even for winners); and it interferes with the development of higher-order thinking (Kohn, 1992).” (Anderman & Murdock, 2007, p. XIII). However, the empirical
underpinnings of these assumptions are relatively unstable. In the same book in a following chapter Miller, Murdock, Anderman and Poindexter (2007) mention only one empirical study that directly proves competitive situations’ facilitating effect on academic cheating. In the following this study will be shortly described.

Taylor, Pogrebin and Dodge (2002) carried out a study with elite high-schools students. The authors used in-depth interviews methods for revealing how pressures of parents, peers, teachers and self-created pressures encourage students’ academic cheating. This research was carried out in strongly competitive high-schools with students who belonged to the higher 10% of the class on the basis of their academic accomplishments. Accordingly, all of the participants perceived their educational environment highly competitive, and they were aware of the serious pressures that were put on them in order to succeed in school and look like a smart student. Furthermore, these high-achiever students’ main reason to cheat was great competitive pressure on them to get good grades. It is present in a school environment where success is identified with good grades and academic recognition which can be obtained by individual achievement. In sum, on the basis of these results very intense competition for good grades push elite high-school students towards cheating. The question arises: which aspect of competition can enhance academic cheating? There are several possible answers: intensity of competition is too high; students perception on grades as limited resource; their perception of opponents which is dissimilar to the above described Japanese youngsters; their perception concerning the goal of competition in which self-development is behind reward orientation (it can depend on personal or social pressures); the teachers who make rank-order in one dimension (grades) instead of proposing diverse competitive niches in too intense competitions, etc.

In sum, it would be very important to distinguish different external pressures that appear in performance goal situations and not identifying automatically competition as the only one external pressure. The multifaceted competition is one of them; however, there are different pressures which can be distinct from competitive pressure such as parental pressure, schoolwork pressure. Therefore, it would be fruitful to examine on one hand different external pressures, on the other hand the multifaceted competition, and not eliminate it from educational settings but try to find the manner that can produce the advantages on competition and eliminate its disadvantages.

Beyond educational and social psychological researches on competition and cheating, economists carried out researches in this field, as well. On the basis of Hámori’s (2008) review on the concept of competition in economy, it did not get such negative interpretation
during XX\textsuperscript{th} century that we overviewed in this chapter from the side of social psychology. Rather, according to economical assumptions competition played a positive role such as improvement of market functioning, encouragement of innovations, motivation of employees to better work, etc. Beyond positive aspects economists more recently put emphasis on negative outcomes of competition such as unethical behavior if it is present in situational and intraorganisational level.

Schwieren and Weichselbaumer (2009) applied Gneezy, Niederle and Rustichini’s (2003) maze-game paradigm for exploring whether competition enhance productivity or cheating. The authors set two conditions: a competitive and a non-competitive one. Furthermore, several forms of cheating possibilities were exposed to the participants. The results show that on one hand competition led to higher cheating rate and various cheating forms, than non-competitive setting. On the other hand it did not enhance the efforts for better performance. However, the higher prevalence of cheating was present among women, but not among men. Furthermore, individuals who enjoyed the game were more likely to cheat in comparison to persons who did not found the task pleasant. Moreover, participants who felt that their performance is poor cheated more in competitive condition, than high-performers. The authors explain this result by a “face saving activity” which permitted avoiding the embarrassment for the lower performance.

In another research carried out by economists, Kulik, Fallon and Salimath (2008) explain how intense intraorganizational competition can lead to unethical behavior. This theory seems to be useful from our point of view, because the authors explain not only the presence or lack of competition, but contextual factors related to competitive situations which result unethical behavior in companies like Enron. At this company a special evaluation system was implemented that selected three groups: the very high performers (upper 10\%) who get great bonuses, mediocre employees who received modest reward and the weakest 15\% of employees who were practically fired. This system induced a very intense competition among employees. According to the authors, this system led to a selective mechanism in which employees from lower level of organizational hierarchy instead of achieving higher performances, strived to find supporters from higher management levels and among their peers in order to securing their jobs. Furthermore, this intense competition led to different unethical decisions in the whole organization, as well. The authors suppose that the relationship between the intensity of competition and firm efficiency is inverted “U” shape rather than linear one due to the high presence of unethical behavior in very intense competition.
Another important aspect in the interpersonal and situational level refers to justice issues. Deutsch (1985) interpreted his first results (Deutsch, 1949b) in the light of distributive justice. Here, only some important and competition and distributive justice-related aspects will be presented from the perspective of educational contexts. According to Deutsch (1985), distributive justice is the “fairness of the distribution of the conditions and goods that affect individual well-being” (Deutsch, 1985, p. 1). Therefore, distributive justice refers to fairness of resource allocation. For example in school context, these resources can be the attention of the teacher, a good grade, etc. In a competitive process several factors that we have to take into account in order to identify the key features of a distributive system. The following dimensions are the most important among them:

(1) *The content, quality and quantity of the distributed good or harm:* for example if a grade is distributed in the classroom as a resource, we have to take into account the meaning of the given grade (content) as well as its value. A good grade can be interpreted as a symbol of excellence, while in other cases it can be obtained easily (quality). Furthermore, a good grade can be scarce resource (quantity) if it is given on the basis of the bell-curve. All of these content, quality and quantity related issues can have impact on the cheating behavior during a competitive process.

(2) *The roles involved in the process of distribution:* this aspect reflects on the roles of the persons who distribute the resources and the persons who can obtain resources. In normal educational settings teachers distribute resources (i.e. grades) to students. However, there are other possibilities also, when students give grades to other students’ achievement. According to Deutsch (1985), these roles play crucial importance in the evaluation of distributive process.

(3) *Styling of distribution:* The styling of distribution can refer to the explanations of the teacher regarding his/her decisions on the distribution of resources in a competition.

(4) *The values that underlie the distribution* are one of the key features. These values can be defined on the basis of the students’ needs, their ability or potential, their efforts, their improvement on their performance, the social value of their contribution of a group project, the principle of reciprocity, etc. Grades such as resources can be distributed on the basis of all of the above mentioned values. In several cases need-based distribution instead of merit-based distribution can induce the feeling of injustice, while in other circumstances it does not have such consequences.

(5) *Rules or criteria for defining values.* Not only the values themselves, but the perceived legitimacy of rules or criteria that provided the given values can induce the feeling of
injustice. For example not democratically created rules or criteria of values of distribution can lead to the feeling of injustice.

(6) Measurement procedure. Values of distribution can be well accepted in a given community regarding a competition; however, it can induce the feeling of injustice if the measurement of behaviors related to these values is biased.

(7) Decision making procedure. Even if the values, their criteria and the measurement procedure were perceived to be just, feeling of injustice can be induced if the decision making regarding for example the winner of a competition is biased.

(8) Scope of the moral community. The above mentioned dimensions refer to a given community; however, it can be questionable who belongs to the community or in a competition who can be an adversary. Feeling of injustice can appear if the scope of moral community (who is in the competition, who can be evaluated within this process) is not evident for the competitive partners.

Not only distributive and procedural justice perception can be taken into account in the case of morality of competition. In a competition rules are set up by a given community or authorities concerning fair and unfair behaviors and these rules can be reinforced by possible punishments for the rule-breakers. The first integrative model which conceptualized committing crimes as a rational decision derives from Becker (1968). In this model rational decision making is based on a cost/benefit calculation. According to this theory on one hand the larger the benefit from the crime, the greater will be the frequency of committing the crime. On the other hand concerning the possible costs such as the greater the likelihood of getting caught, the lower will be the frequency of crimes. Furthermore, the seriousness of expected punishment has to be taken into account, as well. The more serious the expected punishment, the decision-maker less frequently commits the crime. This model is based on the rationality of decision maker who is well-informed concerning the benefits, punishments and likelihood of being caught. Several researches were carried out on the basis of Becker’s (1968) model in the field of academic cheating (Heisler, 1974; Tittle & Rowe, 1973; Bunn, Caudill, & Gropper, 1992; Kerkvliert & Sigmund, 1999; Nowell & Laufer, 1997). Their results will be presented in the following chapter, because none of these researches were carried out in a competitive context.

From another perspective, more recent decision-making theories, such as prospect theory (Kahneman & Tversky, 1984), can provide useful explanation why individuals who perceive themselves in a competitive loss situation have higher tendency in risky behaviors such as cheating, than persons who see themselves in a gain position. In the field of tax
behavior Kirchler (2007) summarizes researches which refer to high tax evasion among participants perceive tax paying as a loss on the basis of prospect theory. In the following we will follow the guideline of Rettinger (2007) who implements prospect theory in the field of academic cheating. Later we will make an attempt to make assumptions concerning how Rettinger’s (2007) assumptions can be extrapolated to competitive academic settings.

According to Rettinger using Kahneman and Tversky’s (1984) prospect theory the self-evaluation of a student concerning his/her win or loss depends on a reference point. This reference point can be chosen, for example, by class norms or on the basis of grade point averages which determine his/her further life (university admission, getting a good job, etc.). This chosen reference point will determine what a loss or a gain is for the given person. In this case therefore a student who makes decisions concerning academic dishonesty chooses behavior with the highest cost/benefit ratio according to this reference points. As we mentioned in the chapter on social representations the main message of prospect theory (Kahneman & Tversky, 1979) is an irrational tendency to be less willing to gamble with profits than with losses. In the case of academic dishonesty it means that students who perceive themselves in a loss situation in comparison with their reference points will be more predisposed in academic dishonesty than students who see themselves in a gain position in comparison with their reference points. For example, there are two students who think that they can obtain 71 points during a competitive entrance exam. Person A’s goal is to acquire a place in a university which requires 75 points. While person B’s goal is to acquire a place in another university where the requirement is 70 points. Person A is in a loss situation concerning his reference point; however person B is in a gain position. Therefore, according to prospect theory person A will be more inclined in risk seeking behaviors, than person B who will more probably avoid risks. According to Rettinger (2007) this risk seeking behavior can lead to more academic cheating among students who perceive their situation as a loss, than as a gain.

Prospect theory was mentioned among situational variables that can influence immoral competitive strategies. The reason is the following. The reference point of students which influence the perception of their gain or loss situation can be determined externally by the teacher or the educational institution (i.e. high school or university). If schools can provide a framing or reference points which leads to minimal proportion of students who perceive themselves in loss situation, in these institutions – on the basis of prospect theory – the proportion of students who use academic cheating as a risk seeking behavior in order to avoid their loss will be lower. Competition can play a crucial role at this respect. In a competition
where resources are very limited (being the best student, having the best grades in the class – only one person), there are a lot of persons who feel themselves in a loss situation. As a consequence of this setting the ratio of students who will be inclined in risky behavior such academic cheating will be higher. However, scarce resources are not necessary for revealing dishonest strategies. If the expectancies in an open competition are very high, where not only performing very well, but accomplishing the minimal requirements is very demanding (getting the minimum grade) for students, they will feel themselves in a loss situation which accompanies with high risk seeking inclinations such as cheating. Concerning competition perception on scarcity of resources might be one of the most important factor that influences risk seeking behavior, otherwise academic cheating. In the process of competition there are always more or less persons who see themselves as a winner, while others feel themselves in a loss situation. What is sure, on the basis of the prospect theory, is that the latest group needs more attention concerning their possible unfair or immoral competitive strategies.

In sum, even if we do not know how procedural, distributive and retributive justice perception can result in immoral strategies in competitive settings, we have seen that on the basis of Smith et al.’s (1972), Taylor et al.’s (2002) and Schwieren and Weichselbaumer’s (2009) results, competition enhances the prevalence of cheating. These results are consistent with Anderman et al.’s (2007) assumptions, even if those are not very well underpinned by empirical results. Kulik et al. (2008) suppositions are in line with the above mentioned results concerning how intraorganisational competition can result dishonesty. However, none of these researches can provide a deeper insight concerning how and which dimensions of competitive situations produce unfair strategies such as cheating. The more profound understanding of competition which characterizes the post-Deutsch period can provide guidelines towards the understanding of how competition can generate higher productivity and lower cheating rates.

Anderman et al. (2007) attempted to prove that individual, classroom and school level extrinsic goal orientation – with high competitive pressures – raises cheating behavior. However, at least two questions arise: Which aspects of competition enhance cheating? How it is possible to create a constructively competitive atmosphere, which is described by Tjosvold et al. (2003, 2006) in the workplace or by Fülöp (1999a, 1999b, 2006) in Japanese high-schools.

Tjosvold et al. (2003) proved that the dimension of fairness was the variable that had the strongest correlation with constructive competition. Hence, we can suppose that not all form of competition is in positive relationship with cheating or competition does not seem to
be inherently the “single most toxic ingredient in a classroom, and it is also a reliable predictor of cheating” (Anderman et al. 2007, p. XIII). However, considering positive and negative outcomes of competition fairness plays a crucial role. Therefore, we have to ask ourselves how it is possible to create fair competitive situations in order to achieve its positive outcomes. There are several suppositions, but only a few researches which can help us answering this question.

We have seen empirical findings and theoretical assumptions concerning the relationship between dishonest strategies and very intense competition which puts a great pressure on competitors (Taylor et al., 2002, Kulik et al. 2008). However, we have no detailed knowledge on the degree of intensity which results cheating instead facilitating high productivity. Moreover, as we have seen in the case of Japanese students (Fülöp, 1999a, 1999b, 2006) competition was not very, but too intense, however immorality was mentioned very rarely among the negative consequences of competition. Not only intensity, but (1) the nature of rewards, (2) different roles in the distribution of resources, (3) the styling and timing of distribution of resources in a competition, (4) the values behind the distribution of resources as a consequence of a competition, (5) the lack or the existence of consensus concerning these rules, (6) the measurement procedure of the values behind competition, (7) the decision making procedure itself, (8) and the scope of the community concerning reward distribution or in sum perceived distributive and procedural justice can have an impact on individuals moral or immoral competitive strategies. There are only a few pieces of information concerning the above mentioned dimensions. Smith et al. (1972) and Taylor et al. (2002) found that competition for good grades enhance academic dishonesty. Furthermore, according to Schwieren and Weichselbaumer (2009) cheating for low ability persons can be a “face saving activity” which supposes that social reputation as a resource can enhance cheating, as well. According to Kulik et al.’ assumptions (2008), competition for preserving a job (survival) in competitive intra-organizational context can facilitate cheating. On the basis of these results scarcity of resources is accompanied with dishonesty in the case of good grades and preserving the job in a competition, however it is hard to categorize face saving as a limited or unlimited resource. Furthermore, it can be explained by not only the scarcity of resources, but in these cases individuals are in a loss situation, which can result higher cheating prevalence (Kahnessman & Tversky, 1979; Rettinger, 2007). We do not know anything about different roles of distribution or the styling (which can for example refers to the explanations of the authorities that control the process of competition regarding the decisions on the distribution of resources) and timing of distribution. However, styling
probably plays a very important role in terms of procedural justice, similarly to its role in tax behavior (Kirchler, 2007). Values and consensus towards them are empirically not examined variables, as well, likewise the measurement and decision-making procedures of competitions. It would be fruitful to carry out further researches in order to identify the possible impact of these variables.

**Morality of competition in intergroup level**

Here, I would like to refer only shortly to pervious results of intergroup competition and immorality, because in this research project it was not aimed to carry out intergroup competition. However, in Appendix 3 there is a more detailed description on how the issue of immorality appeared in previous intergroup competition processes.

Since the first researches on intergroup competition we can see that the dimension of fairness appears (Sherif et al., 1954/1961; Blake, & Mouton, 1961; Rabbie & Wilkens 1971). However, researches did not concentrate on the role of competition’s perceived immorality on the escalation of conflicts. Rabbie et al. (1971) a posteriori mentions that they put a great emphasis on legitimate nature of competition, which probably contributed to participants’ fairness perception in the competitive process. They mention this dimension as one of the possible reasons why they did not succeed to replicate Sherif et al. (1954/1961) results.

Furthermore, even if Johnson et al. (1981) found that in their review on competition and cooperation’s impact on achievement that cooperation without intergroup competition promotes higher achievement and productivity, than intergroup competition with cooperation, there are some researches which show the inverse. Erev et al. (1993) found that in their field experiment intergroup competition with intragroup cooperation led to higher group performance, than the lack of intergroup competition. Mulvey and Ribbens’ (1999) results suggest that a specific, challenging group goal has positive impact on group performance. However intergroup competition beyond good performance, enhanced group efficacy and these groups sat higher goals than the control groups.

There are examples concerning military and business application of intergroup competition, as well. In both cases the goal is the higher performance. Therefore, it is very crucial to see the variables which lead to conflict or can reveal constructive nature of intergroup competition. In Julian, Bishop and Fiedler’s (1966) field study interpersonal task-related work relations, self-esteem and satisfaction with group’s life increased and anxiety
decreased as a result of competitive intergroup trainings. Therefore, application of intergroup competition was later extended to the whole military unit. Furthermore, Young, Fisher and Lindquist’s (1993) research measured the impact of intergroup competition and intragroup cooperation’s effect on slack and performance. The authors were inspired by several companies which used this setting for higher performance and who succeed to get into the Fortune magazine’s 500 best manufacturing companies. During their visits at these companies they have seen that intergroup competition combined with intragroup cooperation in highly interdependent tasks produced very high performance. The evident success of these firms is not a scientific proof, however, it cannot be ignored. Young et al. (1993) interestingly found that cooperation between group members can decrease the achievement in comparison with non-cooperative setting, because of the time that participants spent with helping each others. Consequently, according to the authors’ conclusion cooperation can be mostly advantageous if the works are unbalanced between individuals and same persons have more difficult tasks than others. From the side of competition, feed backs about the closeness of rival group in the competition (just ahead or just behind) increased significantly productivity in comparison with other settings where the feed-back referred to the rival group’s much better or worse performance. In sum, intergroup competition where the competitors are close to each other can increase performance such as the authors have seen it previously among successful companies.

Finally, Stenne et al. (1999) and Tauer and Haraczkievicz (2004) took the first steps towards the exploration of variables that can influence in a positive way competition’s outcomes on intergroup motor performance. Tauer and Haraczkievicz (2004) not only proved that intergroup competition can lead to higher performance, but it can enhance intrinsic motivation and task enjoyment, as well. However, it is not yet tested in a detailed way how different characteristics of appropriate competition – including the dimension of fairness – can have an impact on the processes and outcomes of intergroup competition. Therefore, we do not yet know the precise impact of the perception of fair competition on group dynamics and escalation of conflicts. If there are any similarities between constructive interpersonal competition (Fürlop, 1995, 2001; Tjosvold et al., 2003, 2006), we can count on the role of fairness dimension. This question conveys importance in the light of several positive consequence of intergroup competition (Erev, Bornstein, & Galini, 1993; Julian et al., 1966; Mulvey & Ribbens, 1999; Rabbie & Wilkens 1971; Tauer & Harackiewicz, 2004; Young et al., 1993).
Morality of competition cross-culturally

Earlier we attempted to review more recent researches on competition cross-culturally. In this part we would like to outline the above presented researches and focusing only on aspects which reflect moral and fairness issues in competition concerning Hungary and France. According to Fülöp (2003a) competition is immoral if the power relations are unequal or/and participants use not allowed means such as cheating, fraud, lies, corruption for obtaining competitive advantage. Furthermore, clear criteria (well known and comprehensible rules) and control over competition constitutes another pillar of fair competition. She examined in several cross-cultural researches the morality of competition.

Bonta (1997) found that concerning the two exceptional peaceful cultures where competition was a vivid part of the everyday life of the community the regulation of competition was very strong. On the one hand ethical norms against violence influenced pervasively competitive processes, and on the other hand a very strong control over competitive processes was present in the life of these groups. Consequently, immoral aspects of competition or rule-breaking in competitive processes were suppressed by norms and values of these societies.

Studies with Hungarian students (Fülöp, 1999b, 2002a, 2002b, 2008b, 2009; Fülöp et al. 2007), teachers (Fülöp, 2008a, Fülöp et al., 2004) and businessmen (Fülöp & Orosz, 2006) show that dimension of morality/immorality is very salient in the above mentioned samples’ perception of competition. She found similar results concerning views on Hungarian businessmen, as well. Even if these samples think in a positive way concerning competition in general, when the interviewer asks about the Hungarian business life the dimension of immorality becomes very salient (Fülöp & Orosz 2006).

Immorality as a main negative characteristic of the competitive society has also been the most frequent answer of Hungarian high school students (16-17 years-old) in previous comparative studies (Fülöp, 1999b, 2002a, 2002b). According to adolescents, Hungarians want to win at any cost (particularly in the material sense) and by any means (aggressive or immoral). In contrast, Japanese, American and English high school students had fundamentally less critical attitude towards competition and they mentioned immorality quite rarely in comparison with the Hungarian group.

On the basis of Fülöp’s study (1999) who asked Hungarian, Japanese and American students, immorality of competition appears as one of the negative characteristics, however there were visible cultural differences. According to this comparative study Americans mention the
least frequently this dimension (only 2.1%), Japanese students refer to this dimension three times more often, however among one-fourth of Hungarians immorality appears spontaneously when they talk about negative aspects of competition. These differences suggest that cultural differences can be very salient in this respect, which can be the consequence of different historical, economic and political background, such as change of regime in Hungary.

Later Fülöp et al. (2004) and Davies et al. (2004) analyzed the views of Hungarian and English teachers’ concept towards entrepreneurs and enterprise in the competitive business world. While the comparative study found several differences, the dimension of morality was one of the more salient. English teachers emphasized the value of meritocracy, pragmatism and transparent competitive processes, and the consideration of a wider business community. Hungarian teachers perceived the Hungarian business world as a land of corruption and immorality.

In a further research Fülöp and Orosz (2006) examined the perception of competition in the Hungarian economic sphere on the basis of 187 in-depth interviews with businessmen. This study concentrated on the main dimensions and categories of Hungarian business competition. The interviews showed a mostly negative picture: the proportion of positive aspects – the motivation to achieve, the required business skills – was much lower than the answers concerning the negative characteristics. The immaturity of business competition in Hungary, its Social-Darwinist and unregulated nature, businessmen’s short term way of thinking, their exaggerated money orientation and finally their immorality were the most notable aspects of the study.

In an observational study, Fülöp, Ross, Kuscer, and Pucko (2007) examined competitive and cooperative behavior of primary and secondary school students and their teachers in UK, Hungary and Slovenia with the method of classroom observation and focus groups. Moreover, they interviewed the teachers of the class concerning their learning practices on competition and cooperation. Students’ competitive and cooperative behavior, as well as teachers’ competition and cooperation encouraging and discouraging behaviors were recorded by three observers.

In the following we will concentrate on Hungarian results, because these observations were the most interesting concerning the relationship between morality and competition among the three countries. Hungarian results were summarized by Fülöp (2009). She observed how teachers regulate competitive processes during the class. Fülöp found that in several cases teachers indirectly encouraged unfair competition between students in the way that rule-breakers were not punished. For example if giving a good response depended on hand-raising, students should have been waiting for the teacher to call them. However, they regularly did not wait for
the teacher’s permission for answering, but gave the answer directly not respecting the explicit rules of these competitive situations. Teachers mostly did not attempt to regulate these cases, the laissez-faire attitude were more dominant in these competitive cases. In short, the rule-observing and rule-keeping monitoring function of Hungarian teacher did not work effectively.

Nevertheless, there were structured competitive cases when teachers observed strictly the rules. In several situations where a good grade could be obtained by high performance in a competitive setting they have noticed cheating and they punished it. But, it was not the case when students reported the cheater. In these cases, primary school teachers did not examine if the pupils’ report was based on truth or not, teachers firmly objected these “accusations”. Furthermore, teachers rebuked the “sneak” pupil; however, Fülöp and her colleagues as observers perceived what happened, and on the basis of their observation, pupils were right in every defamatory case. This aspect is crucial because primary school teachers noticed only one-third of the cheating situations (unfair self-correction of answers in competitive tasks, copying the other’s work during an individual exercise, etc.), otherwise the person who reported the cheater was verbally punished by the teacher. On the basis of Fülöp’s work (1995, 2001a), we summed up that authorities’ controlling function is crucial in order to create constructive competition. As we will see later, according to McCabe et al. (2001) peer-reports are one of the most effective tools in order to decrease academic cheating in university settings. The example of Hungary show that socialization of not reporting dishonest classmates starts in early school years. The possible causes of this distorted socialization will be explained in the chapter concerning cultural characteristics of Hungary.

Regarding cross-cultural differences, Fülöp (2008b) asked Hungarian primary and high-school teachers’ opinion about the role of school in preparing students to competition in life. From the 30% of the teachers who mentioned spontaneously the dimension of morality in this context, two groups can be distinguished on the basis of the content of claims. According to the first: school prepares students for a honest and fair competition, however in “real-life” competition is very cruel and immoral, whereas for the other group school is reinforcing immoral competition – by academic cheating – and prepares students in this way for dishonest competition after school years. Therefore, these teachers think that school socializes students to cheating and further immoral competition (Fülöp, 2008b).

Fülöp also asked teachers about what they think about the relationship between competition and succeeding in today’s Hungary. Only 17 percent of the teachers saw linear relationship between the positive value of success, and interpreted competition as a positive way to achieve it. Two-third of the teachers cast doubts on this relationship. According to them
succeeding in Hungary depends on dishonest behavior such as cheating in competition, usage of favoritism or relations instead of competition based on merits as knowledge or efforts.

In another study, Fülöp (2008b) compared Hungarian, Japanese and Canadian respondents’ way of thinking on the relationship between competition and succeeding in their country, respectively. In all three groups respondents connected the two concepts. However, content analysis of responses shows differences about the interpretation of success: the majority of Japanese and Canadian students perceived competition as a purely positive means towards success. Contrasting to these students 38% of Hungarian respondents described immoral, unfair and aggressive competition as a tool for success. This number is significantly lower than in the case of Hungarian teachers, but saliently higher than among Canadian and Japanese students.

In sum, we can see that there are considerable differences between different members of different cultures’ concept on competition and competitive practices respecting the dimension of morality and fairness. Hungary seems to be a culture where immorality and lack of fairness appear concerning competition more frequently than in the case of American, Japanese, Canadian, UK and Slovenian respondents. We know very little on French people’s way of thinking on moral or fairness aspects of competition and their competitive behavior. Therefore, on the one hand, deeper understanding of the links between morality and competition would be fruitful among Hungarian students. And on the other hand, exploration of this dimension would be interesting in the French culture in which social psychological researches on competition and its immoral aspects is not a trendy research topic.

Summary of this chapter

In this chapter we examined how concept of competition developed since the beginning of the XXth century until today. The work of Deutsch was chosen as a point of reference in the chronological classification of researches. As a consequence of this categorization three main historical periods were distinguished concerning social psychological researches on competition. The pre-Deutsch period was the dawn of debates on positive and negative effects of competition. Several authors from this early period found that competition enhances productivity or achievement even if their task were generally simple, motor exercises, where competition enhanced principally quantity and not always the quality of works.

However, Deutsch chose his scientific roots from elsewhere. His scientific ancestors were Helen Block Lewis, Horney, May and Doob and his very influential professor Kurt
Lewin. Lewis and Horney both had a negativistic view on competition. Their concept is attached to ego-needs leading to selfishness, neurotic, inordinate ambition as outcomes and sources of competition. Both Lewis, May and Doob and Kurt Lewin contributed to Deutsch’s conceptualization of competition. From his perspective (Deutsch, 1949a) a competitive situation in which participants have contriently interdependent goals, where competitors who have low number of affiliative contacts can not achieve the goal in equal amounts. These scientific approaches and his personal history led to a dynamic interpretation of competition within Lewin’s field theory. According to his dynamic concept, competition appears as a force which is created among interacting individuals who strive for the same goal knowing that only one of them can reach it. Therefore, in Deutsch concept on competition there is a negative interdependence between rivals goal-attainment. Furthermore, he opposed competition with cooperation, and he demonstrated the superiority of cooperation in several cases.

In the footsteps of Deutsch David and Roger Johnson and their colleagues were the most influential authors in the social and educational psychology of competition and cooperation. Their aim was very similar to Deutsch: proving that cooperation has more positive outcomes, than competition. Negative interpretation of competition appeared in cross-cultural researches using game theory in the 1960’s and 1970’s, as well. Competition was seen as a factor which decrease intrinsic motivation and creativity, which results several unfavorable consequences in intergroup level. However, several other researches suggested that competition has positive outcomes either interpersonal or intergroup level.

It can be taken for granted that competition can have positive impact on achievement or performance; it can enhance intrinsic motivation; group efficacy and group goals; it does not necessary lead to negative, but positive relationship between competitors and it is not necessarily in positive relationship with cheating. The main question in what circumstances competition can become constructive. From at least the middle of 1970’s the characterization of this description and conditions in which it can evolve were needed. Fülöp pointed out firstly the dimension that can determine constructiveness vs. destructiveness of competition. According to her theory constructive competition mobilizes energy; it increases self-improvement motives; in this case unlimited resources are obtainable by rivals; it is characterized by long-time perspective; the focus of competition is oriented toward self development; its process is regulated by appropriate and fair rules and collectively constructed criteria of evaluation; here the outcome of the competition is controlled by adversaries; in the case of high intensity it increases productivity and efficiency. This work on
the different dimensions that has to be taken into account regarding constructive competition constitute an important step in the understanding of how competition can be used in a positive manner in educational, organizational and business contexts.

According to Stanne, Johnson and Johnson appropriate competition can be characterized by low importance of winning, relative equal chances of competitors for winning, clear rules, possibility of self-development and self-evaluation in competition. However, only in 2003 in collaboration with Tjosvold they carried out the first empirical research in order to characterize constructive competition.

According to Tjosvold et al. competition is constructive when it provides a positive and enjoyable experience accompanied with increased efforts, good relationship between adversaries and greater psychological health and well being. According to Tjosvold et al. fairness of competition was the factor which correlated in the highest level with constructive competition in organizational context. Among others it was one of the main reasons why we concentrated on the dimension of morality in the final part of this chapter. Concerning the other reasons Fülöp et al.’s cross-cultural researches are very important, as well. These studies showed that Hungarians refer to immoral side of competition very frequently, in several cases much more often than individuals from Slovenia, Canada, USA, Japan or the UK. The third reason of dealing with researches on fairness issues in competition concerns Bonta’s work who found in his summary that in only two peaceful societies of 25 played competition an important societal role. However, both of these exceptional societies regulation of competition was very strong, where rule-breaking was out of question. The fourth reason derives from researches of Charlesworth and one his followers. Charlesworth pointed out that cooperation is among other competitive strategies such as aggression, intimidation, manipulation, deception. Only good combination of these strategies can be adaptive and can lead to resource acquisition in order to satisfying of the individual. Hawley later found that children who can mix both coercive, both prosocial strategies are the most adaptive. They can become aggressive or cooperate well and if it is required they cheat more than others. These individuals have very well equipped to adapt to different situations where coercive and/or cooperative strategies are needed. Furthermore, they can effectively hide their negative characteristics from authorities. The question arises: What these skillful children do if they are directly or indirectly allowed to compete unfairly such as in Hungarian school conditions described by Fülöp where teachers discourage cheating related peer-reports?

As we have seen not only these skillful children but hypercompetitive individuals (are endangered concerning unfair competitive strategies. Such as not only discouraged peer
reports (McCabe et al., 2001), but several other situational factors may play important role: very intense competition for grades or for sheer survival in an organization; procedural, distributive and retributive justice, values and norms concerning the distribution of resources in a competition; possible punishments of cheaters; on the basis of prospect theory educational settings where there are several losers; competition which is not based uncontrollable factors instead of efforts and aptitudes; lack of clear criteria and rules of competition, etc. There are several other factors which can be taken into account. However, we suffer from the lack of researches in this respect. For example one of the most recent article’s title is “Does competition enhance performance or cheating?” (Schwieren & Weichselbaumer, 2009 in press). Maybe a better question could be oriented towards the relationship between competition and cheating from the perspective of related personality factors, situational, intergroup variables and cultural issues.

Academic cheating

Forewords for this chapter

As it was mentioned in the introduction during this research project it was a principal aim to find a field in which social representations of Hungarian and French students can be comparable at the behavioral level. As it will be presented about corruption, it is quite far from the everyday experience of the examined samples, therefore it does not seem to be the optimal field in which behavioral differences can be measured. Furthermore, the topic of fraud seemed to be quite broad, therefore it was aimed to find a more specific field that is close to the everyday practices of students that provides possibilities to measure behavioral
level analysis. Taking into account these assumptions and the first empirical results of the research project, academic cheating seemed to be an appropriate topic from these perspectives. Therefore, academic cheating will now be introduced.

Definitions and classification of academic dishonesty

According to Brickman (1961) candidates’ attempts of cheating during civil servants’ examination were unusual events in the ancient China. However, punishments were severe in that period, such as death penalty. Nevertheless, things have changed since the era of ancient China, students continued to cheat in modern ages. Before describing intra-individual, situational and cultural factors that can have impact on the prevalence of academic cheating, we will start by defining academic cheating.

Cheating in general can be defined as behaving “dishonestly or unfairly in order to win some profit or advantage” (Ehrlich, Flexner, Carruth & Hawkins, 1980, p. 141). This definition fits well to the competitive context where per definitionem there are winners and losers. Furthermore, such as Garavalia, Olson, Russel and Christiensen (2007) point out: in this definition the problematic of intentionality is not explicitly paraphrased. A student can defend him/herself from the arguments and accusations of committee by telling them that cheating or behaving unfairly was out of his intention. According to Cizek (2003), cheating in academic context covers three main categories of behavior: (1) “giving, taking or receiving information”, (2) “using any prohibited materials” and (3) “capitalizing on the weakness of persons, procedures, or processes to gain advantage” (Cizek, 2003, p. 42). This description of cheating behaviors covers broad categories; in the application level generally practitioners, such as teachers, have a narrower view on what constitutes cheating. If we take a look at a higher institution honor code, cheating behavior appears in a more detailed way: (1) not respecting the instructions that supervisors or school personnel give; (2) possession of any kind of documents independent of it was exam-related or not if usage of documents is forbidden during the exam; (3) possession of a cell-phone in the classroom of the examination; (4) communication between another student during exam; (5) looking at or acquiring the work (or responses) of another student; (6) transmission of non-authorized documents and equipments to another student; (5) usage of a non-authorized equipment for example smart calculators or PDAs; (6) possession of draft papers that was not distributed by supervisors. (Honor Code of the Reims Management School, p. 8). From very broad to very
precise definitions of cheating presuppose the use of not permitted tools such as possession of instruments (PDA, cell-phone, cheating sheets, etc.) and communication between students. Therefore, it can be useful to describe the classification of Hetherington and Feldman (1964) who took into account the intentionality or planned nature of cheating, and both individual and collaborative forms of cheating. According to them, there are four main categories of cheating: (1) “Independent-opportunistic cheating which is unplanned and impulsive”, (2) “Independent-planned cheating which involves an element of foresight and activity preliminary to the actual test situation”, (3) “Social cheating which involves two or more people and in which the subject actively instigates the cheating”, (4) “Social cheating which involves two or more people but in which the individual plays a passive role” (Hetherington & Feldman, 1964, p. 212-213). Therefore, cheating can be differentiated on the basis of its planned vs. spontaneous forms and individual vs. collaborative nature.

Academic dishonesty includes not only cheating during exams, but also plagiarism. The Webster’s College Dictionary defines plagiarism as “the unauthorized use of the language and thoughts of another author and the representation of them as one’s own” (Webster’s College Dictionary, p. 1032). Very similarly to this definition, according to the Oxford English Dictionary, plagiarism is “wrongful appropriation or purloining, and publication as one’s own, of the ideas or the expression of the ideas (literary, artistic, musical, mechanical, etc.)” (Oxford English Dictionary, p. 947). According to Park (2003) “The term plagiarism is usually used to refer to the theft of words or ideas, beyond what would normally be regarded as general knowledge.” (Park, 2003, p. 472). In sum, plagiarism is similar to theft of ideas and thoughts in order to demonstrate them as someone’s own intellectual product. Similarly to academic cheating, plagiarism has different forms and characteristics. Honor codes define plagiarism in a detailed manner which reflects on its different facets. On the basis of the Reims Management School Honor code plagiarism is: (1) usage of the same terms of a publication without citing in Italics and identifying the source; (2) Paraphrasing a concept, a research and interpreting the verbal or written ideas of a person without citing and identifying the source; (3) Presentation of research results which were falsified somehow; (4) Presentation of a work or a significant part of a work that was presented previously without the written authorization of the interested teacher; (5) Falsifying or distorting an academic evaluation; (6) Usage of a falsified or distorted project’s justification form; (7) Any kinds of behavior in order to falsifying academic evaluation (Honor Code of Reims Management School, p. 8-9). Similarly to cheating, plagiarism covers several types of dishonest behaviors.
Both plagiarism and cheating during assignments can be more or less well defined by honor codes. However, as McCabe et al. (2001) emphasize, it is important to see what is considered as dishonesty from the perspective of the students. According to these authors, the so-called serious cheatings refers to such forms of cheating that the majority of American students accept as cheating. Plagiarism, fabricated or falsified bibliography, turning in the work of someone else, copying a few sentences of material without footnoting them in a paper, copying from another student on a test or exam, usage of unauthorized crib or cheat notes on a test or exam and helping someone else to cheat on a test or exam belong to this category. However, there are other forms of cheating which are dealt with in a more light-hearted way by students. For example, learning the questions of a test from somebody who previously took it belongs to the category which does not count as a cheating according to the majority of examined American students. Scientific concepts and applied academic definitions are very important. However, from our perspective it is also crucial to know the students subjective knowledge and evaluation on what is and what is not academic dishonesty. In the following we will summarize the main demographic, intra-individual, situational or interpersonal, group and cultural factors and processes that can influence the incidence and prevalence of academic cheating.

**Demography**

Concerning demography, we will take into consideration gender, age and grade-level differences. The other demography related issues which reflect more directly on societal class of students e.g. socioeconomic status will be described in the section concerning group level factors.

Miller et al. (2007) suggest that higher cheating rate of males in comparison with women is speculative, and it can be the result of mainly of self-report based studies, whereas concerning actual cheating occurrences these differences very probably disappears. Whitley, Nelson and Jones (1999) in their review article on gender differences in academic cheating found that males cheat slightly more, than females. These differences characterize mainly self-report based studies. Nevertheless, the review of observational studies suggests that there is no gender difference. Furthermore, there was no gender difference in cheating behavior for business and education courses, where according to the authors the normative climate socializes students to cheat irrespectively of gender. McCabe and Bowers (1996) found that
academic dishonesty increased very saliently among American women between 1963 and 1993 (63% vs. 70%). However, this significant growth was not found among men (69% vs. 70%). The authors explain these results with the penetration of women into areas such as business, engineering and sciences which were dominated by men in the past. According to McCabe and Bowers (1996), in this altered situation, women may chose dishonesty in order to be competitive with men who previously cheated. Here, we have to take into account the fact that this comparison refers to American results. In other cultures, in which classical gender roles are less differentiated – following this argument - we might expect greater gender differences.

Beyond gender differences, the age and grade level of students have to be taken into consideration as a possible demographic variable. Literature reviews on researches from the USA suggest that on primary and secondary school levels the prevalence of academic cheating increases with the age of students. However, this tendency turns back in college and graduate level, where school years and academic cheating are inversely related (Miller, et al., 2007; McCabe & Treviño, 1997). Furthermore, Whitley’s (1998) review article sheds light on the relationship between secondary school cheating and higher education dishonesty. He found a relatively strong correlation (r=0.49) between cheating in the two institutional levels. According to Anderman and Midgley (2004) with the transition from middle school to high school, self reported cheating rates increased. The authors explain this increment with the altered environment, where pupils become more grade- and competition-oriented in the high school, than before. Miller et al. (2007) explain this curvilinear pattern not with purely the age, but the differences between high school and graduate students concerning their educational goals. According to these authors, as a consequence of the maturation of children, they feel fewer obligations and have more internalized reasons to be in school.

Kerkvliet (1994), among other variables, measured the impact of socioeconomic status on self-reported academic cheating. He hypothesized (1) that if students' parents attended college, they put more pressure on students which can have a positive impact on academic dishonesty. His results showed that cheating is weakly related to the qualification of parents. According to Whitley (1998) the strength of this relationship is trivial. Passow, Mayhew, Finelli, Harding and Carpenter (2006) found similar results to Kerkvliet (1994). They measured the impact of several variable on academic cheating such as pre-college cheating behavior, co-curricular participation, moral obligation not to cheat, attitudes about cheating, evaluation of the costs and benefits of cheating, perceived social pressures to cheat or not, perceived effectiveness of academic dishonesty policies and demographic variables such as
socioeconomic factors. The authors found that, among various demographic variables, only
grade level had a significant effect on cheating, whereas the socioeconomic status did not.
These studies, along with Whitley’s (1998) meta-analysis, suggest that the socioeconomic
status itself does not have notable impact on academic dishonesty.

*Intra-individual characteristics and processes*

On the basis of Whitley’s (1998) review article that concerns individual or personality factors
that are associated with academic cheating we will first discuss demography related variables.
Then intra-individual cognitive variables will be presented such as ability indicators,
anticipation of success, morality and locus of control. Following cognitive intra-individual
variables motivational and emotional issues will be presented as achievement related variables
and different goal-orientations, anxiety, guilt, self-esteem and need for approval. Finally, the
role of attitudes, extracurricular activities, Machiavellanism and partying will be taken into
account as intra-individual variables that can influence the prevalence of cheating.

*Cognitive variables on individual level*

Ability indicators – academic aptitude

The negative relationship between *academic aptitude* and academic cheating was shown by
several studies (Leming, 1980; Newstead et al., 1996). Leming (1980) found that students,
with above average grades, cheat less than their peers with lower grade points when the risk
of being caught was high. However, other studies suggest that students who have great
pressure on them cheat more in order to achieve high performance. Taylor et al. (2002) found
that external pressures, such as an intense competition, were the main reasons for academic
dishonesty. Whitley (1998) also found that poor study skills have a large effect on academic
dishonesty. In sum, academic ability seems to be in an inverse relationship with cheating.
However, as Taylor et al. (2002) demonstrated, cheating can appear among excellent students
also, if they are under intense pressure to get good grades.

Expectation of success
Houston (1976b, 1977, 1978) examined the relationship between anticipated success and dishonest strategies. In the first experiment he gave a two steps competitive task to two persons. One of them got a positive feedback after the first task with high anticipation of final success. His results suggest that initial success led to cheating in the second task. Houston (1976b) explains this result in two different ways: on the one hand, in the case of anticipated failure condition, final failure was very probable; consequently, participants of this group may perceive useless cheating; on the other hand, participants who were in the winner position after the first task cheated more, because they thought that if they lose this position they lose much more. Therefore, this later group insured the avoidance of losing by cheating. In a subsequent study Houston (1977) found that high anticipated success correlated with academic cheating in a classroom experiment where success was anticipated. Furthermore, positive relationship between anticipated success and academic cheating were proved if the risk of being caught was low. If the risk was high the author missed to demonstrate the relationship between anticipated success and cheating. However, students who anticipated failure cheated at a moderate level regardless of the level of risks.

In a subsequent study Houston (1978) found that participants who anticipated success or failure with high probability were less tempted to cheat in comparison with individuals who were more uncertain concerning their success or failure. This result demonstrates a curvilinear relationship between anticipated failure/success and academic cheating: individuals who expect failure or success with high likelihood cheat less than persons who are less sure about the outcome. On the basis of these results, according to Whitley (1998), moderate expectations of success have a strong effect on academic cheating.

Morality, moral development, moral reasoning and their relationship with cheating

Leming in 1978 carried out an experiment, in which participants who were categorized on the basis of Kohlberg moral development levels (preconventional – low level, conventional – medium level, postconventional – high level). Later they had to resolve a problem where they could cheat in two conditions: high- and low-threat settings. The results show that in low-threat condition students cheated more, than in high-threat setting. Furthermore, students in general who were categorized as low concerning their moral development level cheated more, than their medium or high level peers. Considering the two conditions the difference between low and high level moral reasoning students was the same in the case of high-threat setting. However, in the low-threat condition students who showed high level of moral reasoning
cheated as much as participants who belonged to the low level moral development category. Concerning medium level students there was no difference between the two conditions. Therefore, on the basis of these results in high-threat situations students who are in the post-conventional level cheat less, but they can use unfair strategies in low threat circumstances similarly to their peers who are not as high level as they are concerning moral reasoning.

Malinowski and Smith (1985) reported less ambiguous results concerning the relationship between moral reasoning and cheating. They found that the lower the moral judgment score, the more probably the individual cheated. However, West, Ravenscroft and Shrader (2004) used similar measurement than Malinowski and Smith (1985) in the framework of a natural experiment. In that case, they did not find such relationship between moral judgments and cheating behavior. Nevertheless, when the authors tested possible moderating effects, they found that participants who gave very good responses in the moral reasoning test cheated more.

Bruggeman and Hart (1996) similarly to the above-mentioned researchers measured the students’ level of moral reasoning. Then they gave a task to their participants in which they could cheat. The authors did not find any relationship between the Kohlberg’s level of moral development and cheating. Eisenberg (2004) compared Israeli secondary school students. Participants from the first group viewed cheating as a moral issue, while individuals from the other did not see academic dishonesty as a moral issue. His results proved that students who conceived cheating as a moral issue have significantly less favorable attitude towards cheating than students who perceive it as not a moral issue. Furthermore, the large effect size of these results suggest that the above described distinction (i. e. cheating is a moral vs. not a moral issue) can be more useful than comparison between different developmental stages of Kohlberg’s categorization.

This dimension concerning the recognition of cheating as a morally wrong behavior can be important from this perspective. Especially if we take into account that Whitley’s (1998) review categorize the Kohlberg-based morality dimension as a variable which have minor impact on academic dishonesty.

Locus of control

According to Whitley’s metaanalysis (1998) internal locus of control is in slight relationship with academic dishonesty. Therefore, students who perceive that they can control their outcomes cheat more than students who feel less control over their outcomes. The relationship
becomes stronger if we take into account the type of the task. In Kahle’s (1980) experiment, students completed an internal-external locus of control scale. Then, they participated in an experiment in which they could choose between two tests. One of them was exposed as a test which is closely related to skills required in several college courses (skill test), while the other was valued by experimenters as a not valuable measurement concerning their academic abilities (chance test). Later, students could make a decision concerning which type of tests they would choose in the second experimental phase. Students had the possibility to cheat during this test. The authors found that participants with internal locus of control chose more frequently skill test; on the contrary, external participants chose significantly more often the chance type of test. What is more interesting, is that students characterized by internal control cheated more in skill type test, while their peers high in external control cheated more in choice tests. The author emphasizes the role of interaction between personality and situations: individuals with internal locus of control choose measurements which are valuable concerning their abilities, and they are prone to cheat more frequently in such tasks, but not in “worthless” tasks. However, persons who could be characterized with external locus of control chose “by chance” situations where they could cheat more frequently.

**Motivation- and emotion-related variables on intraindividual level**

Achievement motivation, goal orientation and individual differences in competitiveness

Higher academic aptitudes are inversely related to cheating. This picture is much less clear if we consider the relationship between achievement motivation and cheating. Here, we will only summarize the related researches that we mentioned in the former chapter on competition. Smith et al. (1972) found that among male students high need for achievement is inversely related to cheating; however, the authors did not find such relationship among females. According to Johnson (1981) high-need achievers cheat more than low-need achievers. Perry et al. (1990) found that Type A and Type B students participated in competitive and non-competitive situations in which they have the possibility of cheating. They found that *Type A* participants cheated more than Type B subjects both in competitive and non-competitive situations. According to Whitley (1998) students’ perception of pressure to achieve high grades has moderate relationship with academic cheating. He also refers to the article by Smith et al. (1972).
According to Smith et al. (1972), the main unresolved question is whether achievement motivation leads to the pursuit of overt evidence of success, or a hidden pride in achievement. The first can be more probably a reason of cheating; the second is less likely leading to dishonesty. Several researches (Anderman, Griesinger, & Westerfield, 1998; Anderman & Midgley, 2004; Anderman & Murdock, 2007) gave a possible answer to this question. According to them, students who strive for good grades in order to demonstrate their ability cheat more in comparison with students who are mastery oriented. As we discussed above on this topic, they accused competition for grades (and competition itself) as a source of *performance goal orientation* that pushes students toward cheating. On the basis of previous researches, both competitive pressures (Smith et al., 1972; Taylor et al., 2002) and performance goal orientation can be in positive relationship with cheating (Anderman, 2007; Anderman, Griesinger, & Westerfield, 1998; Anderman & Midgley, 2004; Anderman & Murdock, 2007).

However, competition and performance goal orientation have to be conceived as two distinct factors; on the other hand both performance goal-orientation, and competition have separately several positive outcomes. For example, self-developmental competitive persons (i.e. Ryckman et al., 1996), or students who can combine performance goal-orientation with mastery goals (i.e. Pintrich, 2000) might cheat less than persons who are hypercompetitive (i.e. Ryckman et al., 1990) or purely performance-goal oriented (Anderman, Griesinger, & Westerfield, 2007). Therefore, Smith et al.’s (1972) question concerning the need for achievement reappeared in the framework of mastery goal vs. performance goal framework. Researches only started to explore the impact of different patterns of performance and mastery goal orientation on academic dishonesty (Anderman & Murdock, 2007). The results have been inconclusive, yet. There are not evidences concerning for example high performance and high mastery oriented students cheat more or less, than students with high mastery and low performance goal orientation. Furthermore, there is no empirical research that examined the impact of different competitive personality characteristics on academic cheating.

According to Smith et al.’s (1972) distinctions in the case of competition, it would be necessary to distinguish different competitive personalities. It would also be fruitful to explore their relationship with mastery and performance orientation, putting emphasis on different patterns (i.e. combinations of hypercompetitive vs. self-developmental competitive; performance goal orientation vs. mastery goal orientation). Finally, taking into account these
results would be productive in order to reinterpret the relationship between different competitive personalities and cheating.

Test-anxiety

According to Whitley’s meta-analysis (1998) test-anxiety is in weak relationship with academic dishonesty. Smith et al. (1972) shed light on significant correlation ($r=0.34$ among men and $r=0.38$ among females) between test-anxiety and cheating frequency. Heisler’s results (1974) show that high-test-anxious participants cheated more than low-test-anxious persons. Malinowski and Smith (1985) measured test-anxiety as an indication of the motivation concerning failure-avoidance. They found that the high anxiety led to more frequent and sooner cheating, than low anxiety.

Guilt

Concerning the relationship between guilt and academic cheating, Whitley (1998) found no correlation. If we take a closer look at the reviewed studies, we can see that individuals who maintain high moral positions cheat more than persons with low moral conscience if the chances of being detected is low. This difference disappears if the level of surveillance is high (Corcoran & Rotter, 1987). In sum, according to the authors morality-conscience guilt can be a predictor of academic cheating. The authors explain these counterintuitive results in the following way: individuals who are characterized with high moral-conscience have rigid moralistic stance that masks their rebellious attitude (i.e. breaking rules or cheating). When there is no chance being detected – hence there is no expected punishment – their “true” intentions can come out to the surface, therefore, they cheat. Furthermore, these persons’ reinforcements can derive from others by the recognition of their socially valued accomplishments. Therefore, in such situations in which the probability of being caught is low, they can use unethical means in order to obtain recognition. In high risk conditions they do not cheat because being detected could hinder their recognition.

Concoran and Rotter’s (1987) results are interesting because previous researches (Malinowski & Smith, 1985) found negative correlation between cheating attempts and anticipatory guilt. Anticipatory guilt is a warning system, which supposed to prevent immoral behavior; it appears as a result of thinking of a moral behavior. Following Malinowski and Rotten’s path, DePalma, Madey and Bornschein (1995) examined the relationship between anticipatory and posttransgressional guilt (PTG) and cheating behavior. The authors found
that anticipatory guilt was not related to cheating. However, the authors found significant relationship between PTG – which is experienced after the immoral behavior and it encourage the individual to repair the situation somehow – and cheating. Therefore, people who are experiencing guilt because of previous immoral behavior are not less likely to cheat in the future, but the opposite: they even cheat more, than individuals who are characterized by low PTG. The authors give possible explanations for these results: according to them internal attributions of cheating are required to experience guilt. Therefore, internally attributed lack of impulse control or efforts can be behind guilt and finally cheating behavior. Consequently, individuals with high PTG can cheat more, because of impulse control and efforts problems. The authors’ take-home-message is the following: “guilt doesn’t stop you from doing anything, it only makes you feel bad when you do it” (DePalma et al., 1995, pp. 8.). In sum, the relationship between cheating behavior and guilt is ambiguous: former studies found negative relationship between guilt and cheating, while according to more recent researches (DePalma et al., 1995) guilt is related positively to academic dishonesty.

Self-esteem

Concerning self-esteem, Whitley (1998) reports similarly to guilt the lack of impact. Lobel and Levanov’s (1988) measured the role of self-esteem and need for approval concerning cheating behavior. The authors found that students with high self-esteem and low-need for approval cheated significantly less than other groups. However, students with high self-esteem and high-need for approval cheated as much as participants characterized by low self-esteem. Therefore this study suggests that high self-esteem with high need for approval is in a stronger relationship with academic dishonesty than the high self-esteem and low need for approval combination. Ward’s (1986) research measured self-esteem and gender differences regarding dishonesty. The results show that self-esteem is in negative relationship with academic dishonesty; however, this was only true among girls. In their case, high self-esteem was a good deterrent of cheating. For boys, self-esteem was unrelated to dishonest behavior. These results suggest that (contrary to Whitley’s metaanalysis) self-esteem can be in relationship with academic dishonesty, mainly among girls and if it paired with high need for approval.

Need for approval
The other variable that belongs to this category refers to the need for approval. Lobel and Levanov (1988) found that low need for approval combined with high self-esteem led to lower incidence of academic cheating in comparison with other combinations of self-esteem and need for approval. According to Whitley’s review (1998) students with higher need for approval cheat slightly more than individuals with lower need for approval. Malinowski and Smith (1985) found that participants with above average need for approval did not cheated more frequently, but they hesitate less and begin to cheat sooner than those with scores below median. Jacobson, Berger and Millham’s (1970) research hypothesized that in a situation in which individuals can cheat in order to avoid social failure, persons with high need for approval will cheat more, than others who are lower in this trait. The authors, in their experiment, did not find a significant main effect of social desirability on cheating and did not confirm this hypothesis. However, they found that women with higher need for approval showed a tendency to cheat. In sum, need for approval can reduce the time of hesitation before cheating and it can be in relationship with academic dishonesty, mainly among women. Therefore in situations in which social disapproval can be resolved by cheating, we can expect that individuals with high need for approval will cheat more frequently.

Attitudes toward cheating

Several researches proved positive relationship between self-reported cheating and positive attitude towards cheating. In the following, I will provide only a few examples among these. According to Whitley’s meta-analysis (1998), attitudes towards cheating are very important predictors of academic cheating. According to Sherrill, Salisbury, Horowitz and Friedman (1971), undergraduate American students have negative attitude toward cheating. However, students who cheated in their research showed significantly more positive attitudes toward cheating. However, students who cheated in their research showed significantly more positive attitudes towards cheating, than non-cheaters. Jordan (2001) for example found that beyond situational factors justifying attitudes toward cheating are the best predictors of cheating rates. Furthermore, on the basis of the students’ attitudes cheaters justified more likely cheating, than non-cheaters. Carpenter, Harding, Finelli, Montgomery & Passow (2006) examined engineering students’ perception and attitudes toward cheating behavior. According to their results students’ attitudes toward cheating behavior had a main importance on being dishonest or not. In another study, Harding, Mayhew, Finelli and Carpenter (2007) used a modified version of theory of planned behavior in order to predict students’ cheating behavior in testing and homework contexts. They measured attitudes, subjective norms, perceived behavioral control
concerning cheating behavior and the intention of behaving in a dishonest way. In their modified model, moral obligation – personal feeling of performing or not performing a behavior – and moral reasoning took place, as well. Their results show that all these variables correlated significantly with self-reported behaviors. In the case of test cheating correlation coefficient of attitudes was 0.39. Among the above mentioned variables only the intention of behavior (r = 0.62) and moral obligation (r = 0.4) have stronger values, than this one. While concerning homework cheating only intention of behavior has stronger correlation (r=0.56) with behavior, than attitudes (r = 0.44). When the authors created a second order variable combining attitude, subjective norms and moral obligation, they found that it was a significant predictor of individual’s intention of cheating. This variable explained more than 64% of the variance concerning behavioral intention towards cheating. We do not know the exact effect of attitudes on this second order variable; however, on the basis of high correlation we can expect that it could be quite high.

It is important to take into consideration the fact that attitudes toward different kinds and forms of cheatings can broadly differ from each other. For example, Sims (1993) showed different forms of academic cheating to students who evaluated them on the basis of their perceived seriousness. On the basis of his results, there were visible differences between students’ responses. For example, selling a term paper was perceived as a more serious cheating, than allowing another student to look at one of his classmates’ paper. Therefore, concerning attitudes towards academic cheating, it will be useful to take into consideration the given form of dishonesty.

Machiavellism

Concerning interpersonal factors we will mention here two dimensions: on the one hand Machiavellianism, and on the other hand the need for approval, which will be described as individual factors which can have a positive impact on academic cheating. Machiavellianism is a tendency toward using, manipulating or deceiving others as an instrument in order to goal-achievement (Byrne & Whiten, 1988). Flynn, Reichard and Slane (1987) found that students with high scores on Machiavellianism scale were more motivated to cheat in comparison with students who have a low Machiavellianism score. Hawley (2003) found similar results among Machiavellian students who use both coercive and prosocial behavior in order to acquire resources. In another study, Nathanson, Paulus and Williams
(2006) measured the impact of several demographic, personality variables by controlling scholastic competence factors. On the basis of their results the so called dark triad containing Subclinical Psychopathy, Machiavellianism and narcissism were the best predictor of cheating behavior. Their results suggest that these individual variables are significantly better predictors of cheating, than demographic variables, such as gender, ethnicity or major of the students. Nevertheless, according to Whitley’s (1998) metaanalysis, Machiavellianism is a variable which does not relate to academic dishonesty. Nevertheless, on the basis of Nathanson et al.’s (2006) results, it is more probably that Machiavellianism is in relationship with cheating as a part of the dark triad.

Franternity and sorority membership

On the basis of reviews on academic dishonesty, individual factors such as fraternity and sorority membership or partying are in a positive relationship with academic cheating (Anderman & Murdock, 2007; McCabe & Treviño, 1997; Whitley, 1998). Haines et al. (1986) found positive relationship between fraternity membership and academic dishonesty. Storch and Storch (2002) similarly found that members of fraternities and sororities cheated more frequently than non-members. Furthermore, their results show that higher degree of involvement in a fraternity or sorority organization led to more frequent cheating. The main explanation is the amount of time that these students devote to fraternity duties. Consequently, they have less time to studying and class attendance.

Partying

Zimny et al. (2008) revealed similar results concerning partying which was a predictor of academic cheating in their study. According to the authors partying can lead to more cheating, because students who go out frequently do not have time to prepare for the exams. However, it is also possible that students who spend more time with partying have little commitment to their studies. Both explanations can be behind this relationship. One thing is warning concerning this factor; for Whitley (1998) partying is one of the best predictor of academic cheating.
Situational and interpersonal factors

On the basis of Whitley (1998), McCabe and Treviño (1997) and Anderman and Murdock (2007) reviews and meta-analysis, in the following the main situational and interpersonal variables that are in relationship with the occurrence of academic cheating will be presented. First, the influence of situational factors such as the impact of honor codes, study conditions, perceived grade and other pressures, risk of detection, possible punishments, reward structure will be demonstrated, then interpersonal factors such as social norms towards cheating, norms toward peer cheating behavior and acquaintanceship between students will be presented.

Situational factors that influence academic cheating

Honor codes

According to McCabe and his colleagues (McCabe & Treviño, 1993; McCabe, Butterfield, & Treviño, 2003; McCabe et al., 2001) honor codes are among the most important contextual variables that predict academic cheating. For example, on the basis of their meta-analysis, honor codes have one of the strongest impact on academic cheating. McCabe et al.’s (2003) results showed that, institutions in which an honor code system has been implemented there are more positive integrity policies, and students have more positive attitudes toward monitoring, catching and treating cheaters. Furthermore, from another perspective, in these institutions, students cheat less, they rationalize and justify cheating more rarely, they feel more responsibility reporting others who are cheating, and they talk more about the importance of integrity in comparison with their peers who attend institutions in which an honor code does not exist (McCabe, Treviño, & Butterfield, 1999). Therefore, in these faculties, the monitoring function is present not only from the side of the authorities, but students can also control each other by peer monitoring. Moreover, in faculties where an honor code is present, students more likely think that their dishonest peers will rebuke and will be punished (McCabe et al., 1999). Consequently, according to McCabe and his colleagues, one of the most effective prevention against academic cheating has to be based at an institutional level, in the form of interiorized honor codes. This latest criterion is crucial: honor codes do not have any impact if they do not contain clearly communicated expectations and if they are not elaborated and interiorized by both teachers and students of a given institution.
Study conditions

According to Whitley (1998) *studying conditions* are in a negative relationship with academic cheating. The better the studying condition and the higher the class attendance ratio, the less likely a student cheats. Houston (1976a) found that poor study conditions, when participants were distracted during learning tasks, led to higher cheating rate.

Perceived grade and other pressures

We previously analyzed the impact of different forms of pressures on academic cheating and their relationship with competitive pressures that arise in educational settings when students strive to have better grade than their peers. Smith et al. (1972) found that competition for grades was one of the strongest external sources of pressure concerning students’ cheating. Furthermore, according to them, the two further strongest pressure were school requirements and large work load among men, while among women, beyond competition and large work load, insufficient time turned out to be a significant factor in a positive relationship with cheating. Taylor et al. (2002), in their qualitative study, found that the main sources of external pressures are parents, peers, teachers and school environments. All of them can encourage student to obtain the best possible grades.

According to Whitley meta-analysis (1998), such environmental variables referring to external pressures as the importance of exam outcome (the grade) moderately influence cheating behavior. Therefore, the more important the exam, the more cheating can be expected. However, Houston (1977) did not find a positive correlation between perceived test importance and cheating rates. The author explains this result with the measured equally very high importance of exam in the whole examined sample. In sum, external pressures, as competition for good grades, school requirements, insufficient time or parental demands, can all increase the prevalence or incidence of cheating.

Risk of detection

Several researches proved the negative relationship between perceived risk of detection and cheating (Whitley, 1998; Concoran & Rotter, 1987; Covey, Saladin & Killen, 1989; Heisler, 1974; Leming, 1978). Leming (1978), in his experiment, examined the relationship between Kohlberg’s moral reasoning stages and academic cheating in high- and low-risk condition. He found positive relationship between non-cheating and the level of moral reasoning only in the
case of high-risk situation. However, in low-risk situations students cheated independently from their moral development level. He also examined the relationship between cheating behavior and internal-external control in high- and low-risk conditions (Leming, 1980). His results show that participants cheated less under low-risk condition in comparison with high-risk settings. Furthermore, in such circumstances, on the one hand, women cheated significantly more than men; on the other hand, they were also more sensitive to high-risk condition.

In Heisler’s (1974) study, what is interesting from the perspective of risk detection, is that participants who were threatened seriously but have not seen a punishment in the class cheated more than others, who beyond serious threats have seen a punished cheater, and who were threatened moderately or mildly. Therefore, on the basis of these results, if there is no punishment mild threat can be more deterrent than more severe threat, and the most effective deterrent is the combination of severe threat and punishment of the rule breakers.

In Concoran and Rotter’s (1987) experiment, the authors aimed to find a relationship between interpersonal trust, morality conscience and cheating behavior. Participants had to resolve a maze task with closed eyes, opening their eyes counted as a cheating. There were two conditions in this experiment: in the first case the experimenter was behind the participant, in the other setting he was in front of the student. The former was a low-risk condition; the later was the high-risk condition. According to their results in low-risk condition students cheated less, than in high risk setting.

Covey et al. (1989) investigated the role of self-monitoring, level of surveillance and incentive effects on cheating behavior. In their experiment, participants could cheat in a maze task. Concerning risk of detection, participants in the first condition were closely surveyed (high-surveillance condition), while in the low-surveillance condition the experimenter was preoccupied, therefore the risk of being caught was low. Their results showed that surveillance had a significant main effect on cheating: in the high-risk condition participants cheated significantly less, than in the low-surveillance situation.

McCabe and Treviño (1993) hypothesized that self-reported cheating is in a negative relationship with perceived severity of being reported by other students. The authors confirmed this assumption: they found that the threat of peer report is associated negatively with academic dishonesty.

What are the most effective forms of control from the part of the teacher or how a teacher should be the optimal source of the risk?
Davis, Grover, Becker and McGregor (1992) asked more than 6000 students about the most and less preferred deterrents of cheating. They got the following answers for the preferred deterrents: (1) simply informing the students why they should not cheat; (2) arranging seating so that students are separated by empty desks; (3) walking up and down the rows during the test; (4) constantly watching the students. The less preferred forms of deterrents were the following: (1) announcing not to cheat; (2) having assigned seats; (3) having all essay exams; (4) requiring students to leave their belongings outside the classroom during examination (Davis et al., 1992, pp. 18). We could see here that threatening students and telling them “not to cheat” is less preferred to explaining why cheating is forbidden. Furthermore, arranging seats instead of assigning students to given places seems to be a better solution. On the basis of the responses, it less likely generates reactance among students; however, very probably it has a similarly negative impact on cheating behavior (Houston, 1976b, 1986). Furthermore, walking up and down and watching permanently students are accepted forms of surveillance, at least on the basis of a large sample of American students.

Expected punishments

As the impact of expected punishment was already mentioned about competition, it will only be presented shortly here. Heisler (1974) found that punishment of other persons in the group has deterrent effect. McCabe and Treviño (1993) fond that serious expected punishments predicted cheating prevalence; however, the effect of punishments was approximately seven times less strong than peer’s behavior and twice less strong in comparison with the presence of an honor code. According to the results, perceived severity of punishments for cheating have a significant effect on dishonesty; however, the direction of the relationship was opposite to their hypotheses. They found that students who perceived more severely the penalty, cheated more than students who perceived it more mildly. Furthermore, Bunn et al. (1992) found that expected seriousness of punishment did not relate to students’ cheating. However, McCabe and Treviño (1993) found that “social variables”, as perception of other students cheating and acquaintance of a classmate who regularly cheated, were in relationship with academic dishonesty. In line with these results, Cohran, Chamlin, Wood and Sellers (1999) also did not find any deterrent effect of formal sanctions threat on academic dishonesty.

All these studies were carried out in the USA. In the following some of the relevant cross-cultural results concerning the role of punishment will be demonstrated. Diekhoff,
LaBeff, Shinohara and Yasukawa (1999) compared American and Japanese students concerning the prevalence of cheating, their attitudes towards it, issues concerning neutralization, their reactions to cheating and the effectiveness of different deterrents. The authors asked about the impact of three kinds of deterrents: guilt, social stigma and fear of punishment. Their results showed that Japanese students evaluated social stigma and fear of punishment as less effective forms of deterrence than their American peers. What is more interesting, cheaters and non-cheaters think similarly about punishments in both cultures: according to non-cheaters guilt is the best deterrent, while cheaters ranked fear of punishment as the best form of deterrence. This study shows that fear of punishment and guilt are perceived dissimilarly effective deterrents of cheating according to cheaters and non-cheaters. Furthermore, in general, as we have seen fear of punishment was seen as a better deterrent among Americans, than among Japanese students. On the basis of these studies, we can conclude that among Japanese students in general, and especially among Japanese non-cheaters, fear of punishment is an even stronger deterrent than among American students.

Salter, Guffey and McMillan (2001) found very similar differences than Diekhoff et al. (1999) when they compared USA and UK students. The authors found that punishment and threat of punishment is an effective deterrent in the USA, but it does not have impact on cheating among UK students. McCabe et al. (2008) compared American and Lebanon university students; concerning severity of punishments they found that this variable has a significant impact on academic dishonesty in the American sample, while they did not find any relationship in the Lebanese sample.

In sum, usage of severe punishments can be useful deterrents (Tittle & Rowe, 1977). However, as we have seen among American (Bunn et al., 1992; Cohran et al., 1999), Japanese (Diekhoff et al., 1999), UK (Salter et al., 2001) and Lebanese (McCabe et al., 2008) students it might be not the most optimal tool. On the other hand, McCabe et al. (McCabe & Treviño, 1993, 1997; McCabe et al., 2008) found significant positive relationship between severity of punishments and academic cheating. The authors explain this counter-intuitive fact with the suppression of perceived understanding and acceptance of integrity policies which are in negative relationship with dishonesty.

Beyond this explanation, it is possible to explain these results otherwise, for example with Kirchler’s slippery slope model (2007). Knowledge and acceptance of the honor codes or institutional policies can also include severe and mild perceived punishments. Furthermore, students who behave generally in an honest way during exams might feel distrust on the part of the institution because of expected high punishments. Therefore, their sense of retributive
injustice might legitimate academic dishonesty. In sum, description and acceptance of rules do not necessarily parallel with the acceptance of severe punishments, which can easily implicate cop-and-robber relationship between the teacher and students and which due to the reactance can lead to more cheating among previously non-cheaters feel unjust this cop and robber-like treatment.

The role of rewards for task success and importance of exam

On the basis of Whitley’s (1998) meta-analysis, the greater the expected reward for success, the greater will be the probability of cheating. Flynn, Reichard and Slane (1987) examined cheating behavior among students who have high and low scores in Machiavellianism (high Mach vs. low Mach) in two conditions. In the first experimental setting students were motivated to avoid a punishment (avoidance group). In the other group students who did not perform well were not punished; however, those who achieved well were rewarded (attainment group). The results suggest that subjects were more likely to cheat in the avoidance condition than in the induced attainment motivation circumstances. Furthermore, as we mentioned above there was no difference between high and low Machiavellianism groups. However, the authors found that high Machiavellianism individuals cheated more frequently in the avoidance condition than in the attainment setting. Among low Machiavellianism individuals this difference was less prevalent.

The above mentioned study combines situational and personality factors. Flynn, Reichard and Slane’s (1987) study showed that punishment avoidance leads to higher cheating rates than reward-based attainment situations. As we have seen, it is especially true for individuals who are high in Machiavellianism. Two main conclusions can be drawn here: (1) interplay between personality and situational factors have to be taken into account; (2) the results of Flynn, Reichard and Slane (1987) fit well the above explanation with prospect theory (Kahneman, Tversky, 1979). On the basis of this theory, loss position (avoidance condition with punishment) leads to higher risk seeking behavior such as cheating, while the consequence of the perceived gain position (attainment condition) is risk avoidance which produces less cheating. High Machiavellianism individuals might be more sensitive to these effects.
**Interpersonal factors**

Norms towards cheating

Very important situational factors concern how students perceive peers’ honest and dishonest behavior or their approval and disapproval of cheating, in short social norms that allow or inhibit cheating (Bunn et al., 1992; Carrell, 2008; McCabe & Treviño, 1997; Whitley, 1998). The second related variable is referring to peer-reporting inclination of students (McCabe et al., 1999; McCabe et al., 2001).

Concerning the first factor e.g. norms, Bunn et al. (1992) found that students’ perception on the percentage of other students’ cheating and the acquaintance of a classmate who regularly cheat was in a positive relationship with academic cheating. However, it was not the case concerning punishment related variables. According to Smith et al.’s results (1972), norms, such as influence of the friends, were in positive correlation (r=0.38) with academic dishonesty. However, it was true only in the case of girls, and among boys the relationship was not significant.

Other researches showed similar results. Sherrill et al. (1971) found that the percentage of cheating behavior of classmates was perceived significantly higher among students who cheated in comparison with other student who did not cheat. Jordan (2001) found that participants’ cheating scores correlated with the estimated percentage of cheaters that can be interpreted as perceived norm. Therefore, similarly to Sherrill et al. (1971), Jordan (2001) also found that non-cheaters perceive lower the number of cheaters, than cheaters do.

McCabe and Treviño (1993), on the basis of social learning theory, claim that cheating behavior can be reinforced through the influence of observed others who could successfully cheat without being caught. On the basis of this argument, they hypothesized that cheating relates positively to the perception of others’ cheating behavior. Among the five measured contextual variables, such as the presence or lack of honor code, severity of expected penalties, certainty of being reported, understanding of faculty policies and peers’ behavior, the latest factor related to norms predicted academic dishonesty in the highest level. These results were repeated in another study with graduate business and non-business students (McCabe et al., 2001). Consequently, according to McCabe and his colleagues, beyond social learning, the perception of other students’ behavior can provide a normative support concerning engagement in dishonest behaviors. Finally, McCabe, Treviño and Butterfield (1997) carried out a study with almost 1800 students in the field of academic dishonesty; they found that students’ perception on peer’s behavior was the most influential variable among all
of the individual and contextual factors. Therefore, perception of peers’ behavior seems to be one of the most important variable concerning cheating.

Norms toward reporting cheaters

As McCabe et al. (1999) wrote, according to the interviewed students, peer reporting is the hardest requirement of honor codes. The main reason is that peer reporting is discouraged by the peer-group on the basis of group loyalty. This loyalty reinforces the group’s cohesiveness. As McCabe et al. (2001) summarize it, if a member of the group did something that has moral relevance related to the group, this issue is preferred to be arranged within the group, leaving outside other members and principally authorities. Consequently, peer reporting appears as a violation of group norms. Therefore, students who report cheating can easily loose their reputation in the group and they can become victim of group sanctions or the group can exclude him. On the basis of McCabe et al.’s (1999, 2001) researches, students are aware of these possible sanctions, and peer reporting can be a source of conflicts between group members.

According to McCabe et al. (1999, 2001), peer reporting occurs more probably in circumstances in which it is an expected part of the students’ role and in which it is reinforced by rewards (students who reported) and punishments (students who missed reporting a cheating act). On the basis of McCabe et al’s (2001) study, an honor code environment can provide more optimal conditions to peer reporting of cheating than a non honor code institution. Their results suggest that the frequency of expected reports by the respondent or other students is perceived to be higher in institutions with honor code than in non honor code universities.

Perceived peer behavior is a very influential variable. On the basis of McCabe et al. (2001) it has the greatest effect on academic dishonesty. Furthermore, according to Bowers (1964) peer disapproval was “the most important determinant of changes in cheating behavior between high school and college” (Cited by McCabe & Treviño, 1997, pp. 384). McCabe and Treviño’s (1997) results suggest that peer disapproval concerning cheating has a significant negative effect on academic cheating, which leads to greater peer-reportage in case of cheating.

Taking into account (1) the difficulties of peer reporting from the students’ perspective which can generate conflicts, within the class where he lives, (2) the benefits of peer reporting concerning academic cheating, (3) and the optimal circumstances that honor code
environment can provide we can see that conflicts between students or groups of students can be reduced by creation of communities that can interiorize the norms and rules of honor codes. These steps are probably easier in merit-based societies, as the USA. However, in other cultures, in which reporting other members of the society has long lasting cultural roots with a very negative connotation – it is the case in post-socialist countries after the socialist era or France after the period of Vichy – the application of these reinforcing and role-making practices are probably more dangerous and less effective in resolving such conflicts between students.

Acquaintance between students and seating arrangement

According to Whitley (1998) spaced seating arrangement and lack of friendship between students who are next to each other have a moderate negative impact on cheating behavior. Houston (1976b) found that in competitive examination students who were randomly arranged next to each other with a free place between them used less collaborative cheating, than students who were seated immediately next to each others. In both cases insignificant number of students asked other students who were in front of or behind them. Furthermore in a second experiment he was interested in the effect of single vs. altered test versions (A and B groups) on academic cheating. The author found that students cheated similarly in both conditions. When students were not able to ask others who were seated next to them because of the different test that they completed, they turned to students who were in front of them in order to get help concerning the questions. Therefore, on the basis of Houston’s (1976b) results spacing arrangement seems to be more effective, than the usage of different test versions.

Houston (1986) also examined, in a competitive setting, the effect of free vs. assigned arrangement, and the impact of acquaintanceship on collaborative academic dishonesty. The author found that students copied more answers in free arrangement condition than in assigned seating. Furthermore, acquaintance between students also significantly correlated ($r = 0.53$) with the level of collaborative cheating. Both of these studies suggest that spacing and arranged seating are useful tools in order to prevent academic dishonesty. Moreover, we have to take into account that hand altered test versions are not surely as effective tool as seating arrangement. According to Houston (1983), we can avoid these effects if students have altered tests not only on the basis of columns but rows. Finally, we have to be aware of the above-mentioned results in which friendship between students can produce high level of
collaborative cheating even during competitive examinations. The force of this variable also appeared in the research of Davis et al. (1992); when they asked students why they allowed other students to have access to their responses, the most frequent answer concerned friendship issues.

**Cultural differences in academic dishonesty**

Due to the relative lack of intergroup studies in the field of academic cheating, in the following cross-cultural section, some studies will be presented. Cross-cultural studies and researches beyond USA in the field of academic cheating appeared at the beginning of 1990’s (Bernardi et al., 2004; Caruana et al. 2000; Brimble & Stevenson-Clarke, 2005; Diekhoff et al., 1999; Waugh, Godfrey, Evans, & Craig, 1995; Forster, 2006; Gitanjali, 2004; Grimes, 2004; Lim, See, 2001; Magnus, Polterovich, Danilov, & Savvteev, 2002; Marsden, Carroll, & Neill, 2005; McCabe et al., 2008; Newstead, Franklyn-Stokes, & Armstead, 1996; Poltorak, 1995; Rawwas, Al-Khatib, & Vitell, 2004; Salter, et al., 2001; Teferra, 2001; Teixeira & Rocha, 2006; Zopitiatis & Krambia-Kapardis, 2008).

In the following we will review the related literature in which emphasis will be put on the (1) prevalence of different forms of cheating, (2) the attitudes and beliefs concerning them, (3) possible and measured cultural values that are behind cheating and (4) relevant characteristics of the institutions. Furthermore, in some cases I will provide information concerning economical, historical and political issues when they are relevant to academic cheating.

In this presentation, we will follow a chronological order and distinguish the countries on the basis of the World Value Survey’s distinction into seven groups. The first group of countries in which academic cheating was studied concerns Confucian cultures, such as Japan (Bernardi et al., 2004; Diekhoff et al., 1999), China (Rawwas et al., 2004), and Singapore (Lim, See, 2001). The Protestant European group contains former West Germany (Waugh, et al., 1995), The Netherlands (Magnus et al., 2002), and regarding the values, Israel (Magnus et al., 2002). In the English speaking group, at least one academic cheating-related research was carried out in the United Kingdom (Newstead et al. 1996; Salter et al., 2001), in the USA (for example Whitley, 1998), in Australia (Waugh et al., 1995; Brimble & Stevenson-Clarke, 2005; Caruana et al. 2000; Marsden, Carroll, & Neill, 2005) and in South Africa (Burns et al., 1998). Concerning the Catholic European cluster, there are empirical results from France (Forster, 2006), Austria (Waugh et al., 1995; Teixeira & Rocha, 2006) and Spain (Teixeira &
Rocha, 2006). In spite of the relatively low number of researches, post-socialist countries are quite well studied in comparison with other regions; the following countries were examined: East-Germany (Waugh et al., 1995), Russia (Poltorak, 1995; Magnus et al., 2002; Grimes, 2004), Croatia (Hrabak, Vujaklia, Vodopivec, Hren, Marusic, & Marusic, 2004), Poland (Lupton, Chapman, & Weiss, 2000); Romania (Teixeira & Rocha, 2006; Grimes, 2004), and other countries like Albania, Belarus, Kyrgyzstan, Latvia, Lithuania, Ukraine (Grimes, 2004). Opposing with this variety, there were only two studies from Latin American (Costa Rica: Waugh et al., 1995; Portugal: Portugal Teixeira & Rocha, 2006) and African (Burns et al., 1998; Teferra, 2001) clusters. While only one research was carried out from Orthodox (Cyprus: Zopiatis & Krambia-Kapardis, 2008), Islamic (Lebanon: McCabe et al., 2008), Asian and Pacific (India: Gitanjali, 2004) clusters. This literature review is surely not complete, very probably there were other empirical studies in other countries and in other languages that I have not found. Nevertheless, I will make an attempt to structure the above-mentioned clusters on the basis of the above-mentioned dimensions. We will start this discussion with the prevalence of cheating.

Summary of the self-reported prevalence of exam cheating in different cultures

In the following, I would only like to describe the self-reported occurrences of academic cheating in different, previously measured countries (see Table 3). In Appendix 4, there is a more detailed description of the data. We can see, in Table 3, that individual, collaborative and undistinguished exam cheating rates were taken into account. Regarding global cheating rates authors asked students about cheating behavior in the past in general; however, in the two other cases they asked about individual (usage of unpermitted materials) and collaborative forms (not permitted share of information between students) of cheating. As we can see in Table 3, self-confessed cheating rates are visibly higher in post-socialist countries than in other countries, except for India. It is especially true in the case of collaborative forms of cheating. Regarding the extremities, global cheating rate was the highest in Latvia where 92.48% of students cheated at least once during their studies, whereas, the lowest proportion was measured among Black Southern Africans. In the case of individual cheating, the results show the lowest proportion in the UK (8%), while the highest percent was measured among Croatians (34.6%). In the case of collaborative cheating, the highest proportion was measured in Russia (88.89%), while the lowest ratio was in New Zealand (16.8%).
<table>
<thead>
<tr>
<th>Nation</th>
<th>Global cheating (%)</th>
<th>Individual cheating (%)</th>
<th>Collaborative cheating (%)</th>
<th>Cited study</th>
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<td>Post-socialist countries</td>
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<td>92.11</td>
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<td>72.07</td>
<td>83.78</td>
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<td>Kyrgyzstan</td>
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<td>China</td>
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<td>Singapore</td>
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<td>USA</td>
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<td>New Zealand</td>
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<td>Lebanon</td>
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<td>58</td>
<td>McCabe et al. (2008)</td>
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Table 3. Global cheating refers to the prevalence of both individual and collective forms of cheating; if there were several comprehensive researches which measured cheating the sum of it is counted. Individual cheating refers to the frequency of self-reported usage of the not permitted cheating sheets, crib notes, notes and books. Collaborative cheating includes the percentage of self-reported exam cheatings. The counted year refers to the year when the study was carried out. In papers where there was no information concerning data collection we count the previous year of the average of the year of publication. Concerning the American sample we used Whitley’s result which summarizes 46 studies. Most of these articles were carried out in the second half of the twentieth century. In the case of South Africa we use a mean of Black and White respondents from the study of Burns et al. (1998).

Summary of culturally based institutional factors and culturally based values concerning academic dishonesty

This is a short summary of the institution-based and broader cultural- and value-related factors that can be taken into account regarding dishonesty. In Appendix 5, these factors and the related researches are presented in a more detailed manner.

Culturally based institutional characteristics and pressures
First, I will only describe the possible factors that appear at the institutional level in a specific cultural context that can have impact on the prevalence of cheating.

According to Diekhoff et al. (1999), the great pressure on Japanese students deriving from rare but important exams is the main reason of high self-reported cheating rate. On the basis of Lim and See’s (2001) interpretation, the very competitive educational system is the main reason for academic dishonesty in Singapore (Lim & See, 2001). According to Poltorak (1995), Russian students’ main rationalizations of cheating belongs to the accusation of educational system. These claims refer to the ignorance of professors and the missing link between studies and further real life. Furthermore, for him, peer report and parental pressure do not count in academic cheating because of the lack of competition in the Russian educational system. Beyond these factors, for Poltorak (1995), due to the ideology based and the perceived useless classes cheating became acceptable and part of the everyday life among Russian students. Moreover, according to Poltorak (1995), the Russian educational system lacked any control mechanisms of cheating such as interesting courses or flexible majors in educational system which led to high prevalence of cheating. Similarly to Poltorak, according to Magnus et al. (2002), the decreased level of competition in the Russian educational system led to strong dislike towards informers who report others (Magnus et al., 2002). Whereas, for Hrabak et al. (2004), among Croatian medical students, the lack of norms deriving from honor codes and policies can easily lead to a pure rational act among students where they decide on the basis of the risk of detection, possible punishments and benefits. Furthermore, these norms could increase the costs of dishonesty. Polish (Lupton et al., 2000) students think that stopping cheating is the duty of the teacher, they are more sensitive to the external control mechanism, namely to punishments and risks of cheating behavior. While in Ethiopia (Teferra, 2001), the high prevalence of cheating is derived from dog eat dog competition for places in higher education. Finally, according to Forster (2006), in France, great pressure of not failing in the terminal year among business students’ is a typical characteristic of French business school environment that appears as an explanation of high self-reported cheating rate. In spite of the fact that, in this study, plagiarism was measured, in the present research project French students who are under similar institutional pressures will be measured.

As we can see here, both the presence of an intense competition (Lim & See, 2001, Teferra, 2001) both its lack (Poltorak, 1995; Magnus et al., 2002) were accused to lead to the presence of academic dishonesty. On the basis of these results, it is necessary to distinguish which aspect of competition can lead to increased and decreased level of academic dishonesty. Furthermore, on the basis of Forsters’ (2006) explanation, French students cheat
more in the final years of their studies because of the higher pressure of not failing in the last and very important exams. Such explanation can be a good example in terms of Kahneman and Tversky’s (1984) prospect theory, regarding how risk-seeking behavior as cheating appear in a perceived lost academic situation (when students are afraid of failing in the final year). Moreover, in such culturally determined educational settings in which the socialised ideology-based classes are uninteresting and in which they are not in relationship with future goals academic dishonesty appears frequently (Poltorak, 1995). Furthermore, as we have seen in the study of Lupton et al. (2000), Polish students in comparison with their American peers, have less interiorized norms regarding the avoidance of cheating; therefore, they are more sensitive to external control, such as the surveillance of the teacher and punishments. All of these institutional factors determine the prevalence of academic cheating and will be important to refer to in the future analysis. However, it is necessary to take into account, the fact that cross-cultural studies in the field of academic dishonesty only have a short history.

Culture related values behind cheating

Beyond institutional factors, several broader cultural factors have to be taken into consideration in order to explain the occurrence of academic dishonesty.

Bernardi et al. (2004) compared Japanese and American students. On the basis of their results the authors suggest that individualism\(^1\) is negatively related to academic dishonesty. They cite Husted (1999) who found that individualism does not relate to corruption. But according to his results it can be more useful to take into account GNP per capita\(^2\), uncertainty avoidance\(^3\), masculinity\(^4\) and power distance\(^5\) that are related to corruption. On the basis of these results, individualism, GNP per capita, uncertainty avoidance, masculinity and power distance might be behind academic dishonesty, as well. According to Rawwas et al. (2004) who compared American and Chinese students, the value of opportunism\(^6\) –

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\(^1\) In individualist cultures ‘everyone is supposed to take care of him or herself and his or her immediate family; it is characterized by I focus and self-orientation’ Hofstede, 1984, pp. 235

\(^2\) Gross national product per capita

\(^3\) It describes “the extent to which people within a culture are made nervous by situations which they perceive as unstructured, unclear, or unpredictable, situations which they therefore try to avoid by maintaining strict codes of behaviour and a belief in absolute truths” (Hofstede, 1986, p. 308).

\(^4\) “Masculinity pertains to societies in which social gender roles are clearly distinct (i.e. men are supposed to be assertive, tough and focused on material success whereas women are supposed to be modest, tender, and concerned with the quality of life).” (Hofstede, 1991, p. 82)

\(^5\) It refers to “the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally.” (Hofstede, 1991, p. 28)

\(^6\) It is conceived as “self interest seeking with guile” (Rawwas et al. (2004) cites Williamson, 1975, p. 6.)
inversely related to Hofstede’s (1984) power distance dimension – is the strongest predictor of cheating. Furthermore, *positivism*\(^7\) and *idealism*\(^8\) are in negative relationship with cheating. Finally, *detachment*\(^9\) – which is positively related to individualism – and *tolerance*\(^10\) – which is in positive relationship with Hofstede’s uncertainty avoidance – are positively related to attitudes toward dishonesty. These values will also be important during our analysis. Salter et al. (2001), referring to Cohen et al. (1993) and Salter et al. (2001), found that students of countries with low uncertainty avoidance cheat more and they are less sensitive to punishments and monitoring. *Uncertainty avoidance* can be an important predictor of academic dishonesty. Waugh et al. (1995) explain strongest anti-cheating perception in Australia where such cultural characteristics are present as “*fair go mate syndrome*”, “*deeply rooted sporting traditions with sunny outdoor climate*”, the “*easy attitude to life*” and the “*importance of personal achievement in the framework of fairness and justice*” (Waugh et al., 1995, p. 74). However, even if these variables are hardly measurable (except climate), they are important in relation to the prevalence of cheating. On the basis of Poltorak’s (1995) study, there are at least two main societal factors that contribute to the high acceptance and prevalence of cheating among Moscow students: *previous conflict between unofficial and official goals* which are built in to the collective memory and due to the social-political transition, *normlessness* and *anomie*. According to Magnus et al. (2002) due to the *double societal standards* the representatives of official system such as teachers have been seen as *enemies* from the perspective of unofficial norms which can lead to higher cheating rate in Russia. Furthermore, Magnus et al. (2002) found a link between the tolerance of cheating index (attitudes toward students who cheat; students who help others who cheat; those who inform cheaters) and the country’s *corruption perception index* (for details see Appendix 6); and they suggest that *corruption and academic cheating derives from similar cultural sources*. According to Grimes (2004), *pre-transition authoritarian command and control economy, and later the social, economic and legal transformation* to market economy and the dominant *collectivistic values* contributed to the low importance of individual actions of dishonesty and led to high cheating rates, especially considering collaborative forms of cheating in post-socialist countries. In Croatia (Hrabak et al., 2004), the *governmental system*  

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\(^7\) It can be interpreted on the basis of general optimism vs. pessimism (Rawwas et al., 2004)

\(^8\) Idealists concentrate on the ethical course of actions and not the result of them; relativists focus on the consequences of actions (Rawwas et al., 2004)

\(^9\) Avoidance of emotional risks and commitments contrasting to commitments are more important than emotional risks. (Rawwas et al., 2004)

\(^10\) Rejection or acceptance of absolute truths or standards concerning for personal and social conducts. (Rawwas et al., 2004)
was a servant of the communist party, it was seen as an enemy from the perspective of the citizens. Therefore, cheating against the enemy is easily justifiable. According to the authors such attitudes had consequences in the higher education, as well. In Costa Rica (Waugh et al., 1995) positively evaluated attempts concerning governmental improvements and Catholic religion can contribute to lower cheating rates. Finally, McCabe et al. (2008) and Salter et al. (2001) supposed that individuals of more uncertainty avoidant cultures cheat more probably and they are more sensitive towards punishments. According to McCabe et al. (2008), students from collectivistic cultures cheat more in a collaborative way.

**Summary of institutional and culture-based factors that can have impact on academic cheating**

First of all there are contradictory explanations about the impact of competition concerning cross-cultural studies of academic cheating. In Singapore (Lim & See, 2001) and in Ethiopia (Teferra, 2001) competition appears as an explanation of higher cheating rate. We can also take into account explanations regarding the American context (Anderman, Griesinger, & Westerfield, 1998; Anderman & Midgley, 2004; Anderman & Murdock, 2007) which suggests a positive relationship between competition and cheating. However, according to Poltorak (1995) and Magnus et al. (2002), in Russia the lack of competition appears as a factor which leads to high prevalence of academic dishonesty. Very probably, it is important to analyze deeper the possible relationships between competition and morality in order to clarify specificities of cultural contexts which can determine whether culturally based competitive educational contexts enhance or inhibit cheating behavior.

Contrary to the majority of American results (Whitley, 1998), both Forster (2006) among French, and Hrabak et al. (2004) concerning Croats, found that cheating is more prevalent among higher degree students. While, in the case of French students, it was due to the high pressure at the of students' studies, among Croats, not only prevalence of cheating becomes higher, but students in the sixth year cheat more, than their younger peers.

Cultural dimensions referring to more general values are more easily measurable in several cases in comparison with institutional factors. The dimensions of individualism (Bernardi et al., 2004), collectivism (Grimes 2004, McCabe et al. 2008), opportunism – by the inversion of power distance (Rawwas et al., 2004), tolerance (+) – positive relationship with uncertainty avoidance (Rawwas et al., 2004), uncertainty avoidance itself (McCabe et al. 2008; Salter et al., 2001), detachment (Rawwas et al., 2004), anomie (Magnus et al., 2002),
perception of corruption – CPI index, catholic religiousness are measured variables almost in all of the countries that we mentioned concerning the prevalence of exam related academic cheating.

We made an attempt to measure the relationship between self-reported academic cheating and some of the above-mentioned values and other possibly important variables. Here, instead of describing these results in a detailed manner we would only like to present the main results of these calculations. In Appendix 7, the calculations are presented in a more detailed manner.

**Cultural values and their relationship with the prevalence of academic dishonesty**

Prevalence of cheating and perception on corruption

The relationship between cultural values and the prevalence of academic cheating will now be examined. However, first, an important methodological issue has to be mentioned concerning the post-socialist countries that participated in the Grimes’ study (2004). In Grimes’ study there was a question concerning the assistance of the student in a collaborative dishonest act “If you were asked to help someone cheat on an exam/course assignment, would you assist them?” (Grimes, 2004, p. 286); the percentages of positive responses do not reflect on the past collaborative cheating behavior, but these numbers show students inclination in collaborative cheating if possibility is given, and if one of their peers needs their help. However, the author asked another question concerning other students’ collaborative cheating behavior: “In college, have you ever been asked to help someone else cheat on an exam/course assignment?” (Grimes, 2004, p. 286); this question can provide more reliable data if we are interested in the actual cheating rate, because here they report not their own dishonest behavior, but others’ attempt to cheat. Therefore, in the following analysis, as we are interested in the relationship between variables that are oriented toward the precise data, we will use the latest numbers. However, we are also interested in the culturally different biases, and will therfore use numbers that are informative regarding students’ inclination in dishonest behavior.

On the basis of Magnus et al.’s idea (2002), the goal was to find a relationship between the self-reported prevalence of cheating and the CPI index of the Transparency International. This refers to the perception of corruption in a given-country. It is measured with a 10 point scale, in which low numbers show the widespread and pervasive presence of corruption, while high numbers reflect on the perceived transparency and lack of corruption.
Therefore, I was interested in the correlation (Pearson correlation in the following also) between the three kinds of prevalence and the CPI index. Results showed significant negative correlation between the CPI index and global cheating rate (p = 0.03; r = -0.511). This relationship means that the higher the CPI score - corruption is seen less prevalent - the self-reported cheating rate is higher. However, I have not found any significant relationship between individual cheating rate and CPI scores (p = 0.143; r = -0.613). Considering the relationship between self-confessed collaborative cheating and Corruption Perceptions Index, it was the opposite as I measured a quite strong and significant negative correlation between these variables (p = 0.002; r = -0.739). The summary of these relationships can be seen in Table 4, for the scores of each measured country see Table 5.

<table>
<thead>
<tr>
<th></th>
<th>Global cheating ratio</th>
<th>Individual cheating ratio</th>
<th>Collaborative cheating ratio</th>
<th>Corruption Perception Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global cheating ratio</td>
<td>1</td>
<td>0.588</td>
<td>0.501</td>
<td>-0.511*</td>
</tr>
<tr>
<td>Individual cheating ratio</td>
<td>1</td>
<td>1.043**</td>
<td>0.943**</td>
<td>-0.613</td>
</tr>
<tr>
<td>Collaborative cheating ratio</td>
<td>1</td>
<td>1.043**</td>
<td>1.043**</td>
<td>-0.739**</td>
</tr>
</tbody>
</table>

Table 4. Correlations between different forms of self-reported academic cheating in 19 countries. Correlation between CPI and global cheating rate concerns 19 countries; correlation between CPI and individual cheating is measured on the basis of the data of 7 countries; correlation between CPI and collaborative cheating is on the basis of data from 15 countries. * Pearson correlation is significant at the 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed).
<table>
<thead>
<tr>
<th>Nation</th>
<th>Global cheating</th>
<th>Individual cheating</th>
<th>Collaborative cheating</th>
<th>Used study</th>
<th>Counted year</th>
<th>CPI index closest to the year of publication</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td>Post-socialist countries</td>
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<tr>
<td>Poland</td>
<td>83.7</td>
<td></td>
<td></td>
<td>Lupton et al. (2000)</td>
<td>1999</td>
<td>4.2 (1999)</td>
</tr>
<tr>
<td>Russia</td>
<td>72.1</td>
<td>92.01/88.89</td>
<td></td>
<td>Poltorak (1995)</td>
<td>1997</td>
<td>2.27 (1997)</td>
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<tr>
<td>Confucian cluster</td>
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<td>English speaking cluster</td>
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<tr>
<td>Asian cluster</td>
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<tr>
<td>India</td>
<td>88</td>
<td>32</td>
<td></td>
<td>Sheriff et al. (2000)</td>
<td>1999</td>
<td>2.9 (1999)</td>
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<td>African cluster</td>
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<tr>
<td>Islamic cluster</td>
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</table>

Table 5. Global cheating refers to the prevalence of both individual and collective forms of cheating, if there were several comprehensive researches which measured cheating the sum of it is counted. Individual cheating refers to the frequency of self-reported usage of the not permitted cheating sheets, crib notes, notes and books. Collaborative cheating includes the percentage of self-reported exam cheatings. The counted year refers to the year when the study was carried out. In papers where there was no information concerning data collection we count the previous year of the average of the year of publication. Concerning the American sample we used Whitley’s result which summarizes 46 studies. Most of these articles were carried out in the second half of the XXth century. CPI index refers to the Corruption Perception Index of Transparency International. This index reflects on perceived prevalence of corruption in the given country. Magnus et al. (2002) found correlation between this index and aggregated attitudes towards cheating. We put this variable here in order to examine the relationship between it and prevalence of general, individual and collaborative forms of cheating. In the case of South Africa we use a mean of Black and White respondents from the study of Burns et al. (1998).

There are at least three explanations for these results. First, self-reported collaborative cheating is higher in countries in which corruption is more saliently present because, in such countries, norms towards rule breaking are similar in both cases. Magnus et al. (2002) found that academic cheating behavior and corruption may derive from similar roots. The correlation is stronger between collaborative cheating and CPI than between global or
individual cheating and CPI scores, supposedly because in both case of corruption and collaborative cheating can be interpreted as a dishonest collaboration between actors (businessmen/politicians and students, respectively). The second explanation concerns the fact that students may incline more easily in cheating behavior, because they perceive that corruption – which is a much more serious form of dishonesty – pervades the country and therefore, in the light of those serious crimes cheating behavior is easily justifiable. According to the third explanation the method of self-report works differently in countries in which perceived corruption is more prevalent. In a society in which serious forms of dishonesty, such as corruption, are salient, confessing such unfair practices as helping a classmate during an exam is likely not to be a socially undesirable act. Consequently, students can be more easily honest when a researcher or somebody else asks them about their cheating behavior. In another level of explanation, for the same reason, in such countries, confessing academic cheating is not suppressed by societal norms. In these societies, a student who helps others will not undermine his reputation, not only among their classmates, but in front of his/her parents (see Poltorak, 1995) and the wider society, as well. As far as I am concerned, these three reasons can be behind these strong correlations if we do not consider culture specific value variables. However, as culturally based variables regarding values cannot be forgotten, we will discuss them in the following part.

Country specific values and self reported cheating rate

World Values Survey data sources were used in order to find relationship between self-reported cheating rates and different culturally based values. From this analysis, the data from Lebanon was missing. Furthermore, as World Values Survey was measured in several streams, I aimed to choose the data gathering which is closest in time to the above counted years concerning CPI scores (see Appendix 7 for further details). As we have seen above, competition was supposed to relate in a positive way to high degree of cheating (Lim & See, 2001; Teferra, 2001); furthermore, according to Poltorak (1995) and Magnus et al. (2002), the lack of competition in the educational institutions are suggested to be in a negative relationship with cheating rate. In order to have more detailed notions concerning these aspects, I carried out an analysis in which correlations were measured between the global cheating rate and the question of World Values Survey concerning perception of competition. (The item of the WVS questionnaire was the following: *Competition is good. It stimulates people to work hard and develop new ideas vs. Competition*
is harmful. It brings the worst in people. Respondents evaluated it on a 10 point Likert-type scale in which 1 = Competition is good, and 10 = Competition is bad.). The results concerning this evaluation of competition and cheating showed no significant correlation \((r = 0.405, p = 0.107)\). Due to the lack of other global, cross-cultural measurement of competition in educational or in broader societal systems, on the basis of this non-significant relationship between the perception of goodness or harmfulness of competition and confessed cheating rate, we do not know how these general values regarding competition can influence students’ self-reported cheating behavior.

The World Value Survey also provided possibilities to examine the relationship between different variables. For example, as we have seen among Costa Ricans, relatively strong anti-cheating attitudes were explained by the widespread nature of the Catholic religion. Therefore, in order to declare the relationship between religiousness and the propensity of confessed cheating, the correlation between global cheating rates and the importance of religion in the life of the WVS data were measured. I registered the relationship between the proportion of individuals who said that religion is important or that religion is very important in their life, and the above-described cheating prevalence of 17 countries. The results show no significant relationship between these two variables \((r = -0.015, p = 0.954^{11})\). Similarly to these results, there is no correlation between the percentages of belonging to religious denominations and cheating rates \((r = 0.143, p = 0.585^{11})\).

According to Rawwas et al. (2004), positivism is in a negative relationship with academic dishonesty. Positivism covers dimensions related to optimism and pessimism. In the World Values Survey, there was a question concerning happiness that can be compatible with this positivism dimension: “Taking all things together, would you say you are very happy/quite happy/not very happy/not happy at all.” The percentages of happy and quite happy answers were added concerning each countries and correlation was measured between these percentages and the self-reported cheating rate. The results show a negative tendency between happiness and confessed global cheating rate \((r = -0.439; p = 0.078^{12})\). However, taking into account not self-reported global cheating frequencies but collaborative cheating rates \((N=14)\) strong negative correlation was found \((r = -0.747; p = 0.002^{12})\). Therefore, these results might or partly underpin Rawwas et al. (2004) supposition concerning the role of positivism especially concerning collaborative forms of exam cheating. In countries in which people are less happy in general, self reported cheating rates are higher.

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11 Concerning the variable of importance of religion 1999 WVS data was used concerning UK sample
12 In the case of Croatia 1996 WVS data was used, in case of UK 1999 WVS data was used.
In spite of this tendency there were other dimensions measured that can be more or less related to the dimension of positivism. Relationships were measured between global cheating rate (N = 17) and satisfaction with life and a more specified form of the satisfaction referring to satisfaction with financial situation of household. Results showed, that global cheating rate was related negatively to satisfaction with life (r = -0.519, p = 0.03313), moreover, an even stronger relationship was measured between satisfaction with financial situation of household and confessed cheating rate (r = -0.574, p = 0.01614).

These results suggest that, even if perceived global happiness is related with a tendency to cheating rate, satisfaction with life and satisfaction with the financial situation of household is significantly negatively related to self-reported academic dishonesty. Therefore, in countries where people are more satisfied in general or where they are more satisfied with the financial situation of their households, students report less cheating, than in countries where individuals are less satisfied. Furthermore, the second even stronger correlation can be related to satisfaction with financial situation of the family. This dissatisfaction among family members can be related to the perceived scarcity of financial resources. In such circumstances students who are the members of these families can more easily cheat or confess cheating behavior.

Beyond satisfaction and happiness, perceived financial situation of the families are in stronger relationship with self-reported exam cheating. In this case an important question arises: whether the perceived financial situation of the household or the objective financial situation is in stronger relationship with cheating rate? In order to answer this question, I correlated the GDP/capita (The World Factbook) in the average year of the data gathering in a given country) of these countries with confessed overall dishonesty percentages. The results show that there is a tendency toward negative relationship between these variables (r = -0.461, p = 0.05415). This insignificant correlation might suggest that perceived financial situation of the household is in stronger and significant relationship between self-reported cheating, than the more objective GDP/capita.

Other, possibly related variables

13 In the case of Croatia 1996 WVS data was used, I case of Japan 1995 WVS data was used.
15 GDP/capita was adjusted to the calculated year of studies, except the case of Lebanon, where the year of 2003 was measured.
Furthermore, there were several other variables of the World Value Survey database that correlated significantly with global or collaborative cheating rate. In the following we will take into account these potential factors. The first of these variables concerns instruction keeping inclinations. In this case, I expected that in countries in which a high percentage of individuals thinks that employees follow instructions of their employers without the need to be convinced about the appropriateness of the decision, cheating rates of students will be lower. On the basis of this hypothesis, in societies in which individuals are characterized by higher rule-keeping inclinations will cheat less as a consequence of these generalized rules and instructions observing values. In spite of the hypotheses, there is no link between global cheating rate and instruction following inclinations (\( r = -0.408, p = 0.104^{16} \)). Furthermore, I have not found any significant correlation between the prevalence of cheating and the percentage of the individuals who responded that they have to be convinced first in order to accept and to follow the instruction of their employers (\( r = 0.413, p = 0.099^{16} \)). Therefore, on the basis of these results, values related to instruction following inclinations and values concerning this kind of rule keeping behavior are independent from self-reported academic dishonesty.

In the World Values Survey, we can find questions about the evaluation of different sorts of deviant behaviors. Here, I would like to analyse the relationship between cheating rate and four of these questions. The first refers to the justifiability of claiming governmental benefits; the second concerns the justifiability of cheating on taxes; the third questions justifiability of avoiding fare on public transport; and the fourth reflects on justifiability of accepting a bribe. On the basis of my hypotheses, in countries in which students’ reported higher frequency of academic cheating, people justify more easily claiming for governmental benefits, tax evasion, avoiding a fare on public transport and accepting a bribe. These hypotheses have been confirmed on the basis of the data. Significant correlations were found between self-reported academic dishonesty and justifications of claiming governmental benefits (\( r = 0.558, p = 0.02^{16} \)), avoiding fare on public transport (\( r = 0.609, p = 0.012^{17} \)) and cheating on taxes (\( r = 0.591, p = 0.012 \)), but there was no significant relationship between confessed cheating and accepting a bribe (\( r = 0.290, p = 0.26^{18} \)).

Finally, I was interested in the relationship between the values behind work and self-reported academic dishonesty. On the basis of my hypotheses, on the one hand, in such

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16 For this measurement 1996 Croatian, 1999 UK and 1990 Japan data were used.
17 For this measurement 2006 GB and 2005 Poland data were used, while there was no corresponding information from Latvia.
18 For this calculation 1999 GB data was used.
countries in which people think that hard work in long run unusually brings success students will cheat less. On the other hand, according to the second work related hypothesis, in cultures in which hard work is an important value of child rearing, self-reported cheating rate will be lower. I base these assumptions on values of meritocracy concerning the value of work: countries in which work appears as an important value of child rearing due to the socialization, children will work more, and they will cheat less, especially if work appears to these students as a better tool towards success than dishonesty. Furthermore, in countries in which work brings success students will be more motivated to work harder instead of cheating in comparison with other cultures where instead of work luck or connections lead to success.

The results partly confirmed the first hypothesis. According to the question of WVS hard work in long run brings better life (1) or hard work does not generally bring success it is more matter of luck and connections (10). The results show positive tendency between self-reported cheating rates and the belief that claims that in long run instead of hard work luck and connections bring better life \( r = 0.501, p = 0.057 \). Therefore, despite the first hypothesis was not validated, a tendency was found in the hypothesized direction.

However, the value of hard work, as an important child upbringing quality, is strongly positively correlated with self-confessed academic dishonesty \( r = 0.788, p < 0.001 \). This result shows that if hard work is an important quality of child care in a given country, more students confess cheating in college.

Before the explanation of these results, it is important to examine the relationship between the belief that hard work leads to success and hard work as an important child-care quality in these countries. The results show the lack of relationship between these variables in the case of examined countries \( r = 0.246, p = 0.377 \). Therefore, in the case of examined countries, hard work as an important child-care quality is not linked to the belief in positive consequence of hard work e.g. success.

In order to obtain a deeper insight concerning values behind the work dimension, I also examined the relationship between other work-related values and global cheating rates. Among the measured variables (1) good payment, (2) job security, (3) good working hours, (4) a job in which you feel you can achieve something, (5) interesting nature of the job, (6) evaluation of the notion that claims people who don't work turn lazy, (7) evaluation concerning priority of work over spare time, (8) claiming that it is humiliating to receive money without working and (9) work is a duty toward society as important aspects of work.

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19 For this calculation WVS data from Kyrgyzstan and Singapore were not available.
20 For this measurement 1996 Croatian WVS data was used.
The following table (Table 6) shows the relationship between these work-related values and self-reported academic dishonesty.

<table>
<thead>
<tr>
<th>Work-related values on the basis of WVS</th>
<th>Correlations between work related values and global cheating rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Important in a job: good payment is mentioned (%)</td>
<td>0.243</td>
</tr>
<tr>
<td>Important in a job: good job security (%)</td>
<td>-0.185</td>
</tr>
<tr>
<td>Important in a job: good hours (%)</td>
<td>-0.319</td>
</tr>
<tr>
<td>Important in a job: that you can achieve something (%)</td>
<td>-0.514*</td>
</tr>
<tr>
<td>Important in a job: a job that is interesting (%)</td>
<td>0.064</td>
</tr>
<tr>
<td>People who don't work turn lazy (agree, strongly agree)</td>
<td>0.423</td>
</tr>
<tr>
<td>Work should come first even if it means less spare time strongly agree (agree, strongly agree)</td>
<td>0.123</td>
</tr>
<tr>
<td>Humiliating to receive money without working for that (agree, strongly agree)</td>
<td>0.366</td>
</tr>
<tr>
<td>Work is a duty towards society (agree, strongly agree)</td>
<td>-0.154</td>
</tr>
<tr>
<td>In the long run, hard work usually brings a better life (agree, strongly agree)</td>
<td>0.516*</td>
</tr>
<tr>
<td>Hard work as an important child care quality</td>
<td>0.768**</td>
</tr>
</tbody>
</table>

Table 6. Correlations between work-related values and academic dishonesty. *Correlation is significant at the 0.05 level (2-tailed). **Correlation is significant at the 0.01 level (2-tailed), N=17.

Concerning work-related values, as it can be seen in Table 6, only three values are in a significant relationship with self-reported academic dishonesty. Significant negative relationship was found in the case of the importance of achieving something by the work (r = -0.512, p = 0.036). These results suggest that, in societies in which it is important to achieve something with the work, global academic rate is lower. However, as mentioned above, a strong positive correlation was found between global cheating rate and hard work as an important child-care quality, while the strength of the relationship was medium between cheating prevalence and beliefs concerning in longer period of time hard work brings success.

In order to see the impact of these variables on academic dishonesty a linear regression analysis with stepwise method was carried out in which (1) CPI index, (2) satisfaction with life, (3) satisfaction with the financial situation of household, (4) justifiability of claiming governmental benefits, (5) justifiability of avoiding fares on public transport, (6) justifiability of cheating on taxes, (7) hard work leads to success in a long run, (8) hard work as an important quality of child care, and (9) importance of achieving something by the work, were independent variables and the prevalence of academic dishonesty in the above described countries was the dependent variable.

The results show that only one of the above mentioned variables, the hard work as an important quality of child-care ($R^2 = 0.595$, $\beta = 0.771$, $F = 17.607$, $p = 0.001$) has a significant
impact on the self-reported global cheating rates in the above mentioned countries. Furthermore, this variable explains almost 60% of the variance of self-reported cheating rate. Therefore, these results suggest that taking into account the 17 countries in which the prevalence of self-reported academic dishonesty was measured, interestingly the value of hard work as an important quality of child-care explains more than half of the variance of the self-reported academic dishonesty rate.

In the following step of analysis, I was interested in variables which are in relationship with the variable of hard work as an important quality of child-care. Therefore, in order to explore the relationships between hard work as an important quality of child-care and other relevant values on the basis of the World Values Survey, correlations were measured between potential variables that can be related to this issue, such as (1) the CPI index of the given country adjusted to the year of studies, (2) the importance of religion (percentage of very important and rather important responses), (3) values concerning hard work unusually brings better life in a long run vs. success depends on luck and connections, (4) percentage of respondents who claims that it is fair to pay secretaries on the basis of values of meritocracy, (5) percentage of respondents who follow instructions of the employer without questioning them (6) percentage of individuals who has to be convinced firstly if they follow the instruction of the employer, percentage of respondents who claims that first aim of the country is (7a) the high level of economic growth, (7b) strong defense forces, (7c) people have more say about how things have done, (7d) trying to make cities and countryside more beautiful, (8) belonging to religious denomination, (9a) justifiability of claiming governmental benefit, (9b) justifiability of cheating on taxes, (9c) justifiability of avoiding a fare on public transport, (9d) justifiability of accepting a bribe, (10) geographical group belonging to the country, (11) being proud of nationality, (12) GDP/capita, (13) happiness in general, (14) satisfaction with life, (15) satisfaction with the financial situation of household, (16) importance of good payment in a job, (17) importance of job security, (18) importance of good working hours concerning a work, (19) importance of a job in which you feel you can achieve something, (20) importance of good working hours, (21) notion concerning people who don’t work turn lazy, (22) evaluation of priority of work over spare time, (23) evaluation concerning it is humiliating to receive money without working, and (24) the evaluation of the notion concerning work is a duty toward society (see Table 7).
These results show positive relationship between hard work as an important child-care quality and perceived widespread presence of corruption \((r = 0.743, p < 0.01)\), percentage of respondents who claimed that they would follow instructions of employer if they are convinced concerning the decision \((r = 0.577, p < 0.05)\), positive evaluation concerning justifiability of claiming governmental benefit \((r = 0.621, p < 0.01)\), cheating on taxes \((r = 0.631, p < 0.01)\), avoiding fare on public transport \((r = 0.722, p < 0.01)\), acceptance of bribes \((r = 0.509, p < 0.05)\), the importance of good salary \((r = 0.531, p < 0.05)\), agreement with the superiority of work over spare time \((r = 0.581, p < 0.05)\) and agreement with the humiliating nature of receiving money without working. Furthermore, hard work as an important value of child rearing was negatively related to the percentage of individuals who mentioned having more say of the people how things are done as the most important aim of the country \((r = -0.514, p < 0.05)\).
0.514, p < 0.05), the GDP/capita (r = -0.711, p < 0.01), happiness (r = -0.669, p < 0.01), satisfaction with life (r = -0.751, p < 0.01), satisfaction with the financial situation of household (r = -0.783, p < 0.01) and importance of achieving something with work (r = -0.603, p < 0.05).

It is striking among these results that hard work as an upbringing value is in positive correlation with several issues concerning dishonesty such as perception of corruption, justification of claiming governmental benefits, cheating on taxes, not paying for public transport and acceptance of bribes. These results suggest that, in countries in which corruption is perceived to be widespread and in which accepting bribes, claiming governmental benefits, cheating on taxes and free-riding on public transport is more justifiable hard work is an important value of child rearing. Furthermore, strong negative correlation was measured between hard work as an important quality of child-care and happiness, life satisfaction, satisfaction with the financial situation of household and GDP/capita. The relationships concerning happiness and satisfaction refer to the general climate which is more depressed in countries in which hard work is an important value of child rearing. Moreover, relationships concerning satisfaction with the financial situation and GDP/capita reflect on the material background. While GDP/capita can be conceived as an objective measurement of the wealth of individuals, satisfaction with the financial situation of the household can be interpreted as a more subjective measurement of the same or a similar factor, literally the perceived scarcity of material resources that the family can use. From this perspective, the positive relationship between the importance of good salary and value of hard work and the negative relationship between this latest variable and the importance of achieving something by work suggest that hard work is a value of child-care in cases in which work is conceived as a money earning activity and principally not an instrument that leads to other kinds of achievements. Finally, in countries in which hard work is an important child upbringing value, people find more humiliating to receive money without working. This fits well in the interpretation of scarce resources, because in such circumstances work-related free-riders have a more negative image.

The most important question is still unanswered: why perceived corruption, acceptance of bribes, tax evasion, claiming governmental benefits, free-riding on public transport and self-confessed academic cheating rate are in positive relationship with the importance of hard work in upbringing practices. On the basis of the above-mentioned reasons, we can suppose that lower GDP/capita and more dissatisfaction with the financial situation of the household as a basis of perceived scarce resources can explain the importance
of values concerning hard work especially during upbringing. Hence, in the case of countries where perceived resources are scarce (low GDP/capita, dissatisfaction with the financial situation of the family) children are encouraged to work hard in order to change this situation. However, this encouragement leads to higher self-reported cheating rates in school settings.

Therefore, we can suppose a double strategy in which hard work has a crucial importance; furthermore, dishonest behaviors, such as cheating in schools, are also frequently confessed. On the basis of these value data, we do not know how these strategies are mixed up or when hard-work-based strategies shift to dishonesty, but it seems to be very probable that both hard work, and different forms of dishonesties are more frequent – such as academic cheating – or acceptable – such as free riding in public transport, claiming governmental benefit and tax evasion – in countries in which financial resources are perceived to be limited.

In order to confirm this scarce resource-based double strategy, we have to prove the above-mentioned limited resources hypothesis. First of all, we have to examine the impact of the above-mentioned variables (see Table 7) on hard work as an important value of child-care. In this case, we suppose that variables concerning financial resources will have significant negative impact on the importance of hard work during child-care.

We chose the variables from table 7 that show a significant relationship with hard work as a value of child upbringing, while this latest variable will be the dependent variable. The results of the regression analysis carried out with stepwise method showed that satisfaction with financial situation of the household has a strong negative significant impact ($R^2 = 0.71$, $\beta = -0.843$, $F = 34.256$, $p < 0.001$) on the importance of hard work as a child-care value dependent variable if we take into account only the above mentioned countries. The satisfaction with the financial situation of the household explains 71% of the variance of the work is an important value of child rearing variable. Therefore, as we supposed our hypothesis is confirmed: scarce resources, such as dissatisfaction with household financial situation, has a strong positive impact on the value of hard work during child upbringing. Consequently, in counties in which the majority of families perceive scarce resources concerning their financial situation of the household, children will be encouraged to work hard. As we have seen above, those messages derive from adults concerning hard work – beyond other more positive effects – leading to higher self-reported cheating rate among students in school settings.

On the basis of these results, the following model can be drawn concerning values behind self-reported academic dishonesty (see Figure 3). Figure 3 shows that the importance
of hard work during upbringing can explain 59.5% of the variance of self-reported academic dishonesty.

![Diagram showing the relationship between variables]

**Figure 3. Variables that have impact on global cheating rate in 17 countries.**

Furthermore, the strongest predictor of this latest value is the satisfaction with the household financial situation. This variable reflects on the scarcity of resources in the family in which hard work can provide a beneficial way in order to resolve these monetary difficulties. However, hard work, as a value, leads to more cheating in schools. From the perspective of the literature of academic dishonesty, the importance of hard work as a pressure deriving from the values of the society – probably with the mediation of parents – leads to more cheating. Therefore, in countries in which dissatisfaction is more salient concerning the financial situation of the household e.g. where lack of resources are perceived to be present within the family, students might feel firm pressure to work as hard as they can in order to avoid these financial problems in their future. However, parallel with the hard work they choose alternative pathways in the form of cheating in order to perform well. This choice can be reasonable in the light of several relationships that we demonstrated above.

First of all, in countries in which hard work is an important child rearing value, it is very important to have a well-paid job. Consequently, obtaining a good salary is a reasonable extrinsic motivation in such circumstances in which individuals are dissatisfied with the financial situation of the family that implies that hard work becomes an important child rearing value. In case of these nations, the opposite is true for the value of achieving something by work. Therefore, we can suppose that the more children are motivated to work hard in a society, the value of it is important to achieve something by work will be less prevalent. Taking into account that achieving something is quite broad, we can suppose that it less likely refers to direct material gains (we have seen the negative correlation) and more probably reflects on something more abstract and maybe an intrinsic value concerning work. In sum, in societies in which individuals are dissatisfied with the financial situation of the family, hard work will be an important value in which the value of work is principally earning money, but not achieving something due to the work.
On the other hand, it is necessary not to forget that we are talking about self-reported cheating rate; we do not have information concerning the behavior of students during exams. We have seen that CPI index is significantly and strongly correlated with both global and collaborative cheating rate. Therefore, we can suppose that in countries in which corruption as a serious form of dishonesty is perceived to be widespread in the society, confessing such “petty” dishonesties, as cheating on exams, may not oppose so strongly societal norms, than in countries in which citizens see in a smaller extent the pervasiveness of corruption. Consequently, in countries in which the perception of corruption and other serious crimes are more prevalent, students can be more honest when they are asked about their own cheating behavior in less serious levels or fields, for example during school exams. Students from these countries can more easily justify, confess and legitimize their relatively less serious dishonest behavior in the light and under the shade of more serious crimes that concern their countries e.g. corruption. However, in countries in which corruption is seen to be less salient, students who confess cheating are opposed more strongly with societal norms concerning honesty.

Probably, in these countries, due to the lower visibility or presence of more serious crimes such as corruption, on the one hand students are opposed to stronger societal norms and expectancies concerning dishonesty, and on the other hand, even if they cheated they cannot justify their dishonest behavior with implicitly or explicitly referring to more serious crimes, as widespread corruption. Therefore, being honest in a self-report concerning “petty crimes” such as academic dishonesty in countries in which corruption and other crimes are perceived to be more prevalent provides more reliable data, than in countries in which corruption and other crimes are seen as less widespread.

On the basis of these assumptions, we can set a cultural dishonesty bias hypothesis suggesting that in countries in which other, more seriously evaluated forms of dishonesty, are more extensively present, self-reports concerning academic dishonesty are more reliable sources of information, than in countries in which the dishonesty is less present and pervaded in the general climate. If this hypothesis is true in such countries in which the CPI index is low, students confess their cheating behavior in a more deliberated way; however, in countries in which this index is high, students will make more efforts to hide their dishonesty, which will lead to lower self-reported cheating rates. Therefore, in order to declare the importance of this hypothesized culture-based bias, researchers in the field of academic cheating should carry out more cross-cultural researches using both self-reports and behavioral measurements, in which students do not face with norms that obstruct them telling the truth in a self-report.
How cultural dishonesty bias hypothesis can be validated within the framework of the present study?

In this research project, one of the goals was to compare French and Hungarian students’ attitudes, norms and self-reported behaviors concerning academic dishonesty; furthermore, the goal was to design an experiment that is close to students’ everyday academic performance situations and in which dishonest strategies can be examined directly, thus avoiding self-reports. In this case, if cultural dishonesty bias works, self-reports should provide higher differences between French and Hungarian students, than it will be measured at the behavioral level.

In sum, on the basis of this meta-analysis, we can expect that in countries in which hard work is an important value of child-care, due to the dissatisfaction with the household financial situation, self-confessed cheating rates will be higher. However, it is possible that different biases work in countries in which serious crimes, such as corruption, are perceived to be more widespread and nations in which it is not the case. Therefore, in the analysis, it is important to measure self-reported academic cheating behaviors among French and Hungarian students, and it is also important to create a situation in which dishonest behavior can be directly examined. Furthermore, if we take a look at the relationship between such background variables as Corruption Perception Index and Satisfaction with the household financial situation ($r = 0.771$, $p < 0.001$) or with the GDP/capita ($r = 0.889$, $p < 0.001$) we find quite strong relationships in the case of the above examined 17 nations. These relationships show that the perception of widespread corruption is in a strong negative relationship with objective and more subjective components of financial situation.\footnote{It is in accordance with Husted’s (1999) results who found that GNP/per capita is the strongest predictor of corruption in a given country stronger than uncertainty avoidance, masculinity and power distance.}

The two steps analysis suggests that perceived financial background is the cause of hard work as an important value of child-care. However, among students the inherited value of hard work is mixed up with dishonest strategies in order to get ahead (maybe towards a job in which a good salary is important). This double strategy, including hard work and dishonesty, is expected to be more visibly present in the Hungarian sample in comparison with the French sample. We hypothesize that, on the basis of the stronger dissatisfaction with household financial situation (the mean is 4.9 in Hungary, WVS, 1998 and 6.1 in France, WVS, 2006) and more emphasis on the value of hard work (in Hungary 70.8% mentioned, in
France 50.4% mentioned, WVS, 1999) in Hungary than in France, Hungarian students will report higher cheating rate, than their French peers.

Furthermore, the double strategy hypothesis, referring to working hard and cheating more at the same time, if perceived resources of the family are limited, can be completed by the cultural dishonesty bias hypothesis if we examine cultural differences at the behavioral level. If differences in dishonesty are more salient in self-reports than in behavioral level, we can explain it with the above described cultural dishonesty bias that claims that small-scale forms of cheating are confessed in a less deliberated way in countries, where other, more serious crimes, such as corruption, are perceived to be less widespread.

*Links between high school cheating, higher education dishonesty and workplace misconducts*

In the previous part we mentioned the relationship between Corruption Perception Index and self-reported cheating rate. Here, the goal is to reexamine the relevant literature concerning the relationships between cheating in secondary school, dishonesty in college level and different workplace malpractices. First, we will mention some of the most important studies that confirm the relationship between high-school and college cheating. Furthermore, we will describe the main researches that found links between cheating in higher education and workplace dishonesty.

According to Bowers (Anderman & Murdock, 2007 cites Bowers, 1964), 64% of the students who cheated during high-school years continue this behavior at the college level, while 67% of those who did not cheat in this former step do not cheat during their higher education. According to Davis and Ludvigson (1995), 98% of students who cheated in high-school continue this behavior during their further studies. Finally, according to Whitley (1998), there is a relatively strong correlation (r = 0.49) between prior cheating in high-school and dishonesty in further university or college years.

The final issue that we would like to mention is related to the dishonesty within school and workplace settings. There were several studies in the past that measured this relationship. Sims, in 1993, found a quite strong correlation (r = 0.48) between the academic and the workplace dishonesties. Moreover, according to this study, students who self-reported severely dishonest cheating at the university level were also engaged in severely dishonest workplace behaviors. Nonis and Swift (2001) repeated Sims’s study on an American sample and their results show an even stronger relationship (r = 0.62 among undergraduates, r = 0.60
among graduates) between the two sorts of self-reported cheating behavior. According to Harding et al.’s (2004), qualitative results on academic dishonesty predict misconduct in the workplace. On the basis of their analysis, there are similar elements in the process of decision-making between school and workplace related cheating. Therefore, the authors conclude that students who cheated in high-school or higher education will cheat more during their jobs. In another study Hardin et al. (2006) found that, on the one hand among students who reported that they never cheated in high school, 70% decided not to cheat during college and 50% percent decided not behaving dishonestly in workplace, and on the other hand among students who frequently cheated in high school, 40% did not confess cheating in college level, and less than 10% reported the lack of violation of workplace policies.

Lawson’s (2004) results showed strong relationship between students’ propensity to commit academic cheating and their attitude toward similar behavior in business world. Moreover, they found that students’ beliefs suggest that unethical behavior is the norm in the business world. More precisely, according to the 97% of them, good ethics leads to good business; however, 71% perceive that ethical behavior in business can hurt their career. According to Graves (2008), dishonest students in high-school and college will more probably commit work-related deviant activities concerning property, production, than their peers who do not cheat. Furthermore, according to the authors, high-school cheating is a better predictor of workplace dishonesty, than college misconduct.

All of these studies suggest that there is a link between cheating in different levels of education and workplace. Even if students, both from the USA and from post-socialist countries, evaluate school related dishonesty as a less serious deviant behavior (Grimes, 2004), than business misconduct, we have to take into consideration that academic cheating might be an important step towards further dishonesty in the workplace. Considering (Anderman & Murdock, 2007 cites Bowers, 1964; Davis and Ludvigson, 1995; Whitley, 1998¹) the link concerning cheating behavior seems to be strong, both between the two above-mentioned educational levels and similar pattern reveals in the case of higher education and workplace (Graves, 2008; Harding et al., 2004, 2006; Lawson’s, 2004; Nonis & Swift, 2001; Sims, 1993, see Figure 4).
Figure 4. This figure shows the relationships between cheating in high school, university and workplace levels. We chose in the first case Whitley’s (1998) meta-analysis as a point of reference, on the other hand the results of Nonis and Swift (2001). Whitley’s (1998) study was cited because he summarized several articles related to this field, and Nonis and Swift (2001) article was selected because they measured the most numerous population concerning this issue (N=1051). In both cases we have to take into account that these measurements refer to American samples.

Conclusion

In order to conclude this chapter, I would like to emphasize five main points which are relevant in terms of the present research project. The first point refers to individual differences concerning competition; the second point is related to competitive situations; the third point is in relationship with the impact of grade level in Hungarian and French cultural context; the fourth point is connected to the cultural dishonesty bias; and finally, the relationship between academic and workplace dishonesty will be summarized.

As it was shown previously in the chapter on competition and in this chapter, in the case of competition-related individual level, variables are in an ambiguous relationship with cheating behavior (Johnson, 1981; Perry et al. 1990; Smith et al., 1972). None of the previous studies aimed at distinguishing different types of competitive personality traits that could provide more precise information concerning the subdimensions of competition that increase or decrease cheating behavior. Taking into consideration previous studies by Anderman and his colleagues (Anderman, 2007; Anderman, Griesinger, & Westerfield, 1998; Anderman & Midgley, 2004; Anderman & Murdock, 2007) personality-related performance goal orientation is in positive relationship with academic cheating, whereas mastery motivations are in inverse relationship with dishonesty. Taking into consideration that personal attitudes toward competition can include both performance and mastery goals, we can suppose that competitive personalities who have mainly mastery motives will cheat less than competitive personalities who have mainly performance goals. Finally, it is important to take into account that mastery and performance goal orientation can be equally high at the same time. Anderman (2007) does not provide information regarding this combination; however, it is possible to suppose that equally high mastery and performance goals behind competition can have similar positive outcomes than in the case of the presence of only mastery motivation.

Regarding competitive situations, we can take into account the nature or characteristics of the competitive situation. Open and closed nature of competition in
educational settings can have different impact on cheating behavior. In closed competitive situation, in which students strive for scarce resources, can lead to higher cheating rates than in the case of open competitive conditions, in which students compete for unlimited resources. As Fülöp (1995) described, constructive competition generally takes place in open competitions in which resources are perceived to be unlimited, whereas destructive competition, in the most cases happen when rivals strive to obtain scarce resources. Furthermore, Tjosvold et al.’s (2003, 2006) results show that fairness is the most important element of constructive competition. Taking into account these assumptions, it would be important not to eliminate competitive situations from school contexts, in order to reduce cheating, as Anderman and Midgley (2007) suggested it, but it would be more fruitful to create such circumstances as described by Fülöp (1995, 2001) and Tjosvold et al. (2003, 2006) in which constructive forms of competition can take place.

The third point is in relationship with the impact of grade level on academic cheating in different cultures. American results show that grade level and academic cheating are in curvilinear relationship (Anderman & Midgley 2004; McCabe & Treviño, 1997; Miller et al., 2007). However, in Croatia (Hrabak et al., 2004) and France (Forster, 2006) cheating rates increase with grade level. Taking into account the present research project’s samples, we can presume that in French business school contexts similar results to Forster’s (2006) will be found. Furthermore, similarly to the Croatian results (Hrabak et al., 2004), in the case of Hungarians who are doing their studies in similar post-socialist cultural contexts, similar results can be expected.

Regarding the last point, cross-cultural studies in the field of academic cheating do not have a long history. Furthermore, in the literature, I only found self-report based studies. In order to examine cheating occurrences at the behavioral level, it would be important to carry out behavioral level analysis, as well. In this way, such suppositions as the cultural dishonesty bias could be falsified or reinforced. According to my views, this step cannot be avoided by the use of social desirability scales that could filter such respondents who are less inclined in confessing their dishonesty, because probably reporting honestly in the case of academic cheating questionnaires depends more on societal norms than on individual characteristics regarding social desirability or need for approval. We can suppose that questionnaire methods are more useful in such societies in which reporting such “petty crimes” as academic cheating can be easily legitimized under the shadow of the public presence of more serious crimes as corruption. This legitimation, on the one hand can lead to higher cheating rate, and on the other hand, students who commit such dishonesties due to the societal acceptance of petty
crimes do not have to feel shame to tell the truth about their dishonesties in a questionnaire study. However, probably it is not the case in such countries in which serious crimes are less prevalent, and in which legitimation of petty crimes is harder, due to the lack of relativization of the significance of smaller dishonesties, as academic cheating. In such countries and cultures, questionnaires are less reliable sources of information, than the observation and the measurement of behavior.

As it was presented, both institutional and cultural values are important regarding the acceptance and prevalence of academic cheating in different cultures. Institutional circumstances (presence of honor codes, seating arrangement, the number of proctors, etc) can be the imprint of cultural values, but they can be more or less independent from cultural characteristics, as well. However, these institutional circumstances creates the situations in which academic cheating can (or cannot) occur. Nowadays, there is a strong consensus in the field of academic cheating regarding the crucial role of situative and interpersonal factors. Therefore, if we would like to get closer to the understanding of the prevalence of academic cheating it is important to see the general conditions and situations that the educational system create in a given culture. For example, if it is hard to find universities in a given-country in which honor codes are implemented, it can be taken into account that this situational factor is missing. If it is a custom in the most of the universities of a country that only one person supervise written exams, and not three of four proctors, it will have dissimilar impact on the risk of detection. The same can be true for ID checks before exams and personalized seats in the exam classroom, etc.

Finally, on the basis of several former studies (Graves, 2008; Harding et al., 2004, 2006; Lawson’s, 2004; Nonis & Swift, 2001; Sims, 1993), we have seen that previous school related cheating practices are in a positive relationship with further academic dishonesties in a higher grade level and similar relationships exist between academic cheating and the workplace malpractices. Nevertheless, even if we do not know causal links between former cheating and further steps, the above-mentioned correlations are not weak. Therefore, high prevalence of academic cheating does not seem to be only a negligible problem of the school life, but its consequences probably reach beyond school walls and might also have an impact on the malpractices in workplace.
The Dark Side of the Hungarian Competitive Business Life

Introduction

In this first, empirical part of the thesis the goal was a description of how and in what extent immorality is present in the notion of competition among Hungarian businessmen. Analysis of interviews with businessmen concerning business competition under the direction of Márta Fülöp (Fülöp & Orosz, 2006) on competitive strategies that businessmen use in order to achieve well, meet the requirements of the Hungarian market or simply survive in this sphere motivated us to examine in a detailed manner immoral competitive strategies of the participants of economic life. On the basis of the former study (Fülöp & Orosz, 2006) in general the interviews showed a mostly negative picture. Responses referring to positive aspects were less prevalent such as motivation to achieve or right business skills, than answers about negative characteristics of Hungarian business life. Among negative aspects harmful consequences of the immature business competition; Social-Darwinist nature competition; perceived lack of control mechanisms and well declared rules; short term way of thinking of their competitors; exaggerated money-orientation and finally immorality were mentioned. On the basis of the experiences with this study it seemed to be interesting to summarize the most prominent aspects of immorality and the reasons why businessmen think that unfair practices are salient. Therefore, the interviews were re-contentanalyzed, where the morality and immorality dimension were in the focus. During the analysis it was aimed to gather every part of the interviews that are in connection with this dimension, later these paragraphs were categorized. Furthermore, it seemed to be valuable to explore the main economic, historical,
cultural factors that may play role in the frequent occurrence of immorality in Hungarian businessmen’s concept of competition.

In the transition of post-socialist state to market economy, competition has become a key concept during the past two decades. During the socialist regime, competition was an ideologically denied and banned phenomenon; after the shift of the regime, it quickly became part of everyday life (Fülöp, 1995); today it is deeply rooted in the field of education (Fülöp, 2007), economy (Fülöp et al, 2004a, 2004b; Fülöp & Orosz, 2006), and organizations (Fülöp, 2006). The change of the regime required the quick overwriting of the views toward competition (among other notions, for example capitalism, market economy, etc.) from attitudinal, value and conceptual perspective. When John Mueller (2004) writes about the negative attitudes toward capitalism, beyond its non-utopia nature, he mentions the huge effect of the socialist and communist combatants who characterize competition. This is one of the reasons why the systemic change made a rupture on the conception of competition. The psychological confusion coupled with the lack of appropriate public institutions of economic competition, as well. Therefore, firstly we will take a look on how competition was perceived during the communist era from the 1950’s until the change of regime, subsequently we will explore how and why the concept of competition have gained importance in different fields – and especially in business related fields – after the systemic change. Later, on the basis of Fülöp (2002, 2004a, 2004b) we will demonstrate how Hungarian students and teachers think about businessmen and their competitiveness in order to compare this “outsider” perspective with the “insider” views of business competitors. In the empirical part, we will describe the main categories of immorality that appeared in business competition and the most salient explanations of them. Finally, the results will be discussed in light of the historical and cultural background and possible further steps will be provided from the perspective of education that might contribute to the solution of the problem of immorality in business competition.

**Historical overview about competition in Hungary from 1948 until 1989**

In this part, I will only shortly summarize the main factors that could have impact on the evolution of Hungarian’s concept of competition between 1948 and 1989. Appendix 8 contains a more detailed overview of this topic.

According to Hankiss (1989), after the Second World War, due to several suppressing strategies of new authorities that aimed to build socialism, the Hungarian society was
demobilized (this demobilization means that the authorities banned spontaneous assemblies of individuals, several previously and spontaneously formed communities were dismissed, beagles surveyed discussion between citizens, etc.). Furthermore, this period had manifold, negative impact on the society: (1) cynicism became commonly shared in relation to public or political issues; (2) the ratio of illnesses such as alcoholism rose; (3) suicide rates increased; (4) standard of living decreased; (5) everyday struggle was present for basic needs; (6) the liberty of thoughts was suppressed; (7) these circumstances led to distrust and xenophobia that poisoned the share of information among citizens; (8) instead of horizontal relationships vertical relationships became more dominant – in the political life “topdog-underdog” relations emerged where the personal and ideology-related interests were more important than the interest of the society; (9) previous economic professionals were removed from their place; (10) only a small group of elite decided in almost over every sphere of the life; (11) the dominance of political interest over economic and societal interests was prevalent (Hankiss, 1989).

In the same period, in every layer of the bureaucratic and labor hierarchy, civil servants and workers were forced to meet the requirements of the pre-defined productivity norms of the communist ideology (Hankiss, 1989). One of the tools that authorities implemented in order to achieve higher production rates was the movement of Stakhanovism. On the basis of the definition of Csige (1997) a Stakhanovist was a factory worker who vastly overaccomplished the norms of production in the socialist work competition. In Hungary between 1948 and 1953 more than 130,000 workers were awarded as Stakhanovist or top-worker. The communist ideology used the “success stories” of these persons in order to motivate other workers to produce a higher level in the work competition. The main problem was the reward of the Stakhanovists who worked hard and who were among the “winners” of the local work competition. Due to the value of equality Stakhanovists were rarely rewarded on the basis of their merit in an individual manner. Their recompense was mainly ideology-based: they were named as the top workers in the creation of socialist society in front of their colleagues and they were eulogized by the propaganda (Horváth, Majtényi, & Tóth, 1998). Only a minority among them got good quality flats or traveling possibilities (Horváth, 2007). Furthermore, this minority had to be perfectly loyal to the political power-holders in order to maintain the financial individual- or family-related privileges.

After 1956 and progressively until 1980’s the ideological control became step by step looser. Following Hankiss’s (1986) summary on the changes concerning the Hungarian economy from 1950-1980 we can see that during this 30 years (1) elements of market
economy were built into a collectivized economy, consequently, a mixed economy was created where the state-based redistributive mechanisms were dominant; (2) the first and the second economy (see later in details) integrated; (3) the subordinated role of the economy in comparison with the politics changed: around 1980 the ideologically based distrust of politicians decreased toward market orientated activities of the economy; (4) while in the beginning of 1950’s the control over the distribution of resources was in the hand of the political authorities, until the 1980’s this control progressively loosened and these authorities paid more attention to the spontaneous activities of the economy instead of firmly observing to norms or quotas, because in this way the productivity level was experienced to rise; (5) while in the beginning of the 1950’s the high level of productivity was in the focus of politics, in the beginning of the 1970’s beyond the moderate economic development, the attention turned to the well-being of the people. While in the early 1980’s, the main goal was suspending the level of well-being of the 1970’s. Even if several improvements were carried out during these years, severe problems were in the economy, such as operating shortage mechanisms, serious debts and problematic bureaucracy.

Therefore, from the 1960’s, the authorities decentralized a proportion of economic decisions. Some elements of market economy gained place that mainly appeared through consumer decisions. Furthermore, the so called second economy – spontaneously emerged small scale private money earning possibilities with elements from market economy that existed beyond state-based and organized redistributive systems (Gábor & Galasi, 1981) – step by step became part of the Hungarians’ everyday life. Second economy appeared as an unofficial source of production and it led to financial prosperity of the individuals (Hankiss, 1986). The emergence of second economy had several characteristics that can be important in the interpretation of the concept of competition after the change of regime. In the 1950’s and 1960’s working in the second economy was against the law, illegal and ideologically banned. Later, second economy gradually became legal. However, the ideological evaluation stayed ambiguous until the middle of eighties when it grew to be an indispensable part of the official economic.

The second economy was not especially based on exceptional ideas of the individuals, who worked in this sphere, but they worked hard and it was a good possibility for them to learn the basics of entrepreneurship. However, due to the legal ambiguity of the second economy they did not respect the regulations (which were generally unclear). Earnings from the second economy made possible more consumption and higher standard of living. Furthermore, in the seventies politics put more emphasis on the well-being of the people;
these two factors had impact on the everyday life of Hungarians. Nagy (1997) reports that small entrepreneurs who worked in the second economy bought several objects that symbolized their prosperity. According to Nagy (1997), the effect of these consumer goods created a “snobbish” attitude that had a culturally facilitating effect. These products conveyed information about the prestige and social status of the family. In this context processes of social comparison and competition could emerge from the seventies.

Beyond the Stakhanovism, in the late forties and early fifties, and the impact of the semi-legal second economy, it is important to mention another aspect that refers to selective mechanisms that determined the emergence of elite of this period. During the socialist regime political loyalty toward the ruling class – that included the political power holders of the socialist regime – significantly facilitated the rise of potential member of the elite. Merit-based knowledge had in several cases a secondary importance, in comparison with political loyalty. For example, according to Konrád and Szelényi (1989) if a key position became free, those who were not members of the Communist party were out of question as candidates. However, if the person was member of the party a bargain started between two groups of interest: on one hand for the socialist ruling class political loyalty was crucial, on the other hand for the intellectuals – who belonged also to the elite, but they were relatively loosely attached to the party – professional achievements, therefore merit-based values of the candidate counted more. The opposition between these two values (political loyalty vs. professional achievements) determined the everyday of the majority of intellectuals who were called otherwise as technocrats. The technocrats’ main critique on the ruling class concerned the negligence of achievement- and expertise-related values. The decisions of the ruling class favored political loyalty-based and not merit-based values, which had negative consequences regarding several decisions from the perspective of the technocrats. Therefore, the technocracy aimed to balance their merit based principles and the value of loyalty toward the ruling class in order to get ahead and obtain valuable positions. They had to compromise with the political authorities because the majority of them were afraid of opposing with them and questioning the authority of political superiors. However, according to Konrád and Szelényi (1989) this compromise led to weak economic productivity. Furthermore, for Hankiss (1989), it resulted in counter-selective mechanisms in which not the most talented and productive persons got the important places, but rather the less talented, but politically loyal ones.
On the basis of Kornai’s (2007) work, it can be useful to use two approaches regarding the analysis of the change of regime: the positive and the normative approach. The first refers to the empirically observable and historically existing events or phenomena concerning the system and its change; the second points out the individual’s acceptance or condemnation which evaluates the transformation. In the first case, the empirical validity, the justification or falsification of the claims are in the centre of the questioning. In the case of the normative approach, the evaluation is based on more subjective impressions, sympathy, prejudice, emotions, distrust or anger. Using the positive approach, Kornai (2007) summarized the main traits of socialist and capitalist systems in order to define the basis of the change. Concerning the socialist system, he describes the most important features in three dimensions: (1) concerning property relations, collective properties are dominant and the role of private property is inferior, or at the best, complementary; (2) regarding the societal and economic coordination, the centrally controlled bureaucratic management is dominant, while the market-oriented coordination plays a subordinated role; and (3) the Marxist-Leninist communist party, as a monopole political power, aims at eliminating private property and market-based capitalism. However, according to Kornai (2007), the pillars of capitalism are the following: (1) concerning property relations, private properties are dominant and the role of collective properties is inferior, or at the best, complementary; (2) regarding the societal and economic coordination market plays a key role, while in this system the centrally-controlled bureaucratic management is subordinated; and (3) the political power is not opposed to capitalism, private property and market: its attitude can be either benevolent or neutral. These dimension-based definitions reflect on broader capitalist and socialist system categories that can include several specified forms of both systems.

Considering the above-mentioned distinctions, and following Kornai’s (2007) positive approach, in Hungary, the change of regime is unquestionable because (1) by 2004, eighty percent of the GDP derived from the private sector; (2) market mechanisms became dominant, especially concerning the liberalization of commerce and foreign currency transactions; and (3) the political power protects private property and market related institutions. Therefore, Hungary stepped from the socialist system family into the capitalist system.
According to Kornai’s (2007) summary, during the systemic change, the change of elite occurred, as well. In 1993 (Kornai, 2007 cites Szelényi, Szelényi & Kovách, 1995), only one third of the new economic elite had leader position during the socialist system. Consequently, the previous elite gradually, but relatively quickly, lost its power very shortly after the systemic change (i.e. four years after the system change, two-third of the previous economic elite was not in a decisive position anymore). In this process, Kornai emphasizes the role of well functioning selective mechanisms that derive from the economic efficiency. From our perspective, it could be interesting to pay attention to how today’s businessmen perceive the afterlife of the loyalty based selection mechanisms from the socialist system and the above-mentioned relatively well-functioning selection mechanisms that reflect on economic efficiency.

In the following, I would like to summarize theories that can explain the selection of the new elite after the systemic change. After the change of regime, there were several theories regarding the recruitment of the new elite. From our perspective, it can be interesting to see the competitive strategies that they used in order to gain or maintain their position and power. Here, I would like to sketch up some of these theories and describe one of these, which very probably fits well to the reality. According to Kolosi and Sági (1996), the question of the recruitment of the new elite has to be distinguished from the question of what happened with the former elite. In the following, the first question will be detailed, while the second one will be answered shortly. According to the theory of Hankiss (1989), the new elite emerged with the strong support of the former one. Therefore, during the transition, the former political elite could preserve its authority; however, it is important to mention here Bourdieu’s (1977) theory of conversion of different forms of capital. According to this theory, in post-socialist societies, the former elite possessed political, economic and cultural forms of capital. In the period of transition, the members of the elite, who own different forms of capitals and who have more of the capital, can adapt to the changing circumstances. Therefore, this theory implies that the new elite will emerge from the previous form of elite. According to Kolosi and Sági (1996), the main question refers to the type of capital that these individuals possess. Kolosi and Sági suggest that, in Hungary, the cultural capital was the most dominant and the most adaptive form of different kinds of capitals. Beyond the importance of cultural capital, on the basis of the theory of “the rebel of manager assistants” (Kolosi & Sági, 2006), the overexposed and over-frequented positions in the socialist system were disadvantageous after the change of regime. In this situation, “manager assistants”, who belonged to the elite, but who were not in the spotlight, did not have to fight with “bad reputation” that derives from
the previous system; and they found a niche that opened the door toward favorable positions after the change of regime. On the basis of the empirical results of the first half of the 1990’s, the hypothesis of rebel of the manager assistants coupled with a quick generation change of the elite. The main causes of the generation change have at least two reasons: on the one hand the political elite of the socialist system was quite old, and on the other hand a significant part of them retired quite early. The main question refers to the legacy of the previous system concerning the values of the new elite who were manager assistants in the final period of socialism and who are today’s leaders. Regarding our topic, whether they favor merit-based competition or loyalty-based competition or how do these two competition-related, selective forces appear in their perception?

Furthermore, after the change of regime previous experiences from the second economy had several positive consequences. The most important resources in a capitalist system that derived from the second economy were the previous positions, connections, the acquired skills and practices. However, there was another side of the after effects of the second economy: it was not independent from the redistributive state socialist system and the first economy. The second economy did not give rights, but donations that could always be withdrawn by the authorities. “Therefore, the participants of the second economy could not calculate on long term, they had to grab the situation right here and right now, they had to grow rich by any means right here and right now…” (Kolosi & Sági, 1996, p. 154).

Moreover, as the authors explain, in the socialist system they refer to, in such circumstances it was impossible to build profit legally into the enterprise; the only way to do this was if the participants of the second economy used illegal means in order to expand their enterprise under the umbrella of socialist regime. The entrepreneur who succeeded in doing this, and who did not get into prison due to such decisions, became an example for the others. Therefore, such participants of the second economy who could produce and earn more than their official salary were not similar to the entrepreneurs who kept strictly the laws, and who expected the stability of laws because they knew that in the long run it is the only way of prosperity.

These sociological factors have to be taken into account in the explanation of the emergence of the concept of competition among businessmen in the first decade of the new millennium. These factors can be useful in the analysis of the perception of moral side of business competition. Therefore, in the following, we will first take a look at the present business environment in which businessmen work, then the perception of competition in
Hun
gary will be discussed, finally two forms of business dishonesty i.e. corruption and tax
evasion will be described in the Hungarian context.

**The Business Environment in Hungary on the Basis of International Surveys**

The perception of the economic competition is hypothesized to be deeply influenced by the
economical, legal and psychological environment. In order to review this field, the Global
Competitive Report, the World Value Survey, the GLOBE study, the Business Environment
and Enterprise Survey provide useful sources of information. From social psychological
perspective of economical competition in Hungary, Fülöp’s researches also provide
guidelines.

From the Global Competitiveness report (2006) two points refer to the field of moral
competition: the ‘*lack of even-handedness in the government's relations with the private
sector*’ and ‘*efforts will have to be maintained to reduce the burden imposed on business by
government regulation and tackle government favoritism and inefficiencies*’ (Global
Competitiveness Report, 2006). On the basis of the report, the connections between the
private and public sectors and favoritism have a negative impact on the competitiveness of
Hungary.

On the basis of the World Value Survey - WVS (1999) the dimension of tax fraud is
notable. The Hungarian attitude toward this topic is more permissive than most Western
European countries. This concept has been reinforced by the results obtained in other
Hungarian studies. In 1993, 78%, in 1996 and in 1998, 80%, in 2001, 86% of the respondents
agreed with the following statement: ‘*If somebody would like to get along, he is forced to
break certain rules.*’ (TÁRKI, MHP, on the basis of different years Andorka, 1996; Spéder,
Paksi, Elekes, 1998; TÁRKI Household monitor, 1998; TÁRKI omnibus 2001/7, cited by
Tóth, 2005).

The GLOBE study (Global Leadership and Organizational Behaviour Effectiveness)
compared middle-level managers in 61 culturally diverse countries, mainly using Hofstede’s
(1995) categories. In this comparison, Hungarian businessmen had a very short-term
perspective, and they were extreme individualists, considering only their own interests and
neglecting their group or the community; they had a low achievement orientation in terms of
hard work (Bakacsi, et al. 2002).

The World Bank and the European Bank of Reconstruction carried out the Business
Environment and Enterprise Survey - BEEPS (1999-2000) which concerned managers and
owners of firms from Eastern and Central European countries. The aim of this study was to generate comparative measurements in the field of the quality of governance, the investment climate and the competitive environment. Hellman and Kaufmann’s (2004) article refers to the BEEPS data and concentrates on a so-called ‘crony bias’ phenomenon in the Eastern and Central European region. This term refers to the presence of connections between business and the political sphere. These connections give a competitive non-meritocracy based advantage to a privileged group of businessmen in comparison with their adversaries. The larger the perceived presence of the ‘crony bias’ in the business world the lower the tax paying activity within the whole business community due to the beliefs regarding unequal redistribution. There is also less trust in governmental institutions, and investments in influencing public institutions are corrupted; this was used rather than using other more constructive competitive strategies.

Fülöp et al. (2002) carried out a study about Hungarian and English teachers’ citizenship concept. The authors posed hypothetical dilemmas concerning the field of citizenship, and later interviewed the participants. The results show that, for both samples, fairness constitutes an essential component of citizenship, but for Hungarians it is more extensively present in their way of thinking, and they emphasize more frequently the importance of fairness from the side of the State. For them, fairness at the individual level works only when the State is fair too. The dissatisfaction of Hungarian teachers with their country was notable: they criticized the state twice as much than the English participants. On the basis of Fülöp et al.’s research among Hungarian teachers the morality – immorality dimension has a central role in the interpretation of citizenship.

**Perception of Economic Competition in Hungary**

Perception of economic competition from a psychological perspective is tied to the name of Marta Fülöp. Fülöp (1999) compared Hungarian, American and Japanese secondary school pupils. In this study, Hungarians mentioned economy most frequently; competition for money, jobs and for survival were mostly emphasized by them compared to the other two populations.

Beyond this comparative study, Fülöp and Berkics (2002) examined the conceptions and attitudes toward competition among Hungarian 16-18-year old pupils, who participated in a special economic education program. The results suggested that three quite different views can be distinguished concerning businessmen and business life in general: a positive view, a
negative view and a realistic-cynical view. According to the positive view, businessmen are flexible, open-minded, hard-working people, who are the fuel to the economy. The value system reflects a positive image of the market economy. Another group refers to the negative sides: for these pupils a typical businessman exploits others, doesn’t trust anyone, he is selfish, immoral and inhuman. The third conception includes a realistic but rather cynical attitude, which emphasizes the stressful nature of business life and the large role of the connections in opposition with merits. According to this view, businessmen are smart, and they own large social and economical capital.

Fülöp and Orosz (2006) examined the perception of competition in the Hungarian economic sphere on the basis of 187 in-depth interviews with businessmen. This study concentrates on the main dimensions and categories of the Hungarian business competition. The interviews showed a mostly negative picture: the proportion of positive aspects – the motivation to achieve, the right required business skills – is much lower than the answers concerning the negative characteristics. The immaturity of business competition in Hungary, its Social-Darwinist nature, the lack of control and the rules in the competitive process, the short term way of thinking of the businessmen, their exaggerated money orientation and finally immorality were the most notable aspects of the study. As a result, as observers, the students and teachers perceived economic competition from “outside” in the same negative way as its participants – businessmen.

**Business dishonesty in Hungary**

**Corruption**

Corruption can be defined in several ways, on the basis of the introduction of Heidenheimer and Johnston’s comprehensive book (2001). The authors distinguish three forms of social science definitions: the first is public-office centered, the second is market centered and the third refers to public interests. Here, we will present only one definition from these groups. The authors cite the following definition from Bayley, Myrdal and Nye, from the public-office centered perspective: “Corruption, while being tied particularly to the act of bribery, is a general covering misuse of authority as a result of considerations of personal gain, which need not to be monetary.” (Heidenheimer & Johnston, 2001 is referring to Bayley, Myrdal, & Nye, p. 7). Monetary definitions can be useful in such countries in which norms regarding the behavior of public office holders are not very clear: “Corruption is an extra-legal institution
used by individuals or groups to gain influence over the actions of the bureaucracy. As such the existence of corruption per se indicates only that these groups participate in the decision making processes to a greater extent that would otherwise be the case.” (Heidenheimer & Johnson, 2001 refers to Leff, p. 8). Another group of definitions approaches the concept of corruption from the perspective of public interest. Carl Friedrich’s definition belongs to this category: “The pattern of corruption can be said to exist whenever a powerholder who is charged with doing certain things, i.e., who is responsible functionary or office-holder, is by monetary or other rewards not legally provided for, induced to take actions which favor whoever provides the rewards and thereby does damage to the public interest.” (Heidenheimer & Johnson, 2001 refers to Friedrich, p. 9). Both of these definitions will be useful in the interpretation of the corruption that appeared in the interviews with Hungarian businessmen concerning their perception on Hungarian business competition. In the following, we will shortly describe the situation that reflects on the extension, main characteristics and different forms of corruption in Hungary.

Concerning the extension of corruption the Corruption Perception Index (CPI) of the Transparency International can provide information. This index was introduced in the previous chapter, therefore, here we would like to demonstrate only Hungary’s CPI mean and ranking in the last 10 years. Furthermore, some countries’ CPI means and rankings will also be presented in order to provide comparative reference points regarding the Hungarian results (see Table 8).

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<td>Hungary</td>
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<td>4,9/33</td>
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<td>Austria</td>
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<td>France</td>
<td>6,6/22</td>
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<td>Poland</td>
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<td>3,6/64</td>
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<td>Russia</td>
<td>2,4/82</td>
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<td>2,7/71</td>
<td>2,7/86</td>
<td>2,8/90</td>
<td>2,4/126</td>
<td>2,5/121</td>
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<tr>
<td>USA</td>
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Table 8. CPI scores of Hungary, Austria, France, Poland, Russia, and USA from 1999 to 2008. The first number refers to the CPI score. This score can be between 1-10, in which 10 refers to the lack of perceived corruption. The second number shows the ranking of the given country. Source: Transparency International, Corruption Perception Index.

On the basis of this comparison, it is visible that, in the period (2005, 2006, 2007) when most of the interviews were carried out among the businessmen, there was a positive tendency concerning the perception of corruption in Hungary. Before this interval, from 2002 to 2004, corruption was seen as more widespread. Furthermore, this positive tendency seems to turn
back in 2008. Beyond this timeline, we can see from Table 8 that in other post-socialist countries such as Poland and especially Russia corruption is perceived more widespread; however, not far from here, in Austria the CPI score is much higher, that signifies that corruption is less perceived to be widespread than in the post socialist countries. The same tendency is true in France and in the USA. Instead of going deeper in the explanation of cross-cultural differences concerning corruption, here, I would like to present the main characteristics of corruption in Hungary.

As Vásárhelyi (1998) summarized it, in the 1980’s, on the basis of public opinion, corruption was among the ten most dangerous societal problems. After the change of regime, regarding the opinion polls, it became relatively quickly a more and more important issue: while in 1993 it was only the 15th most important societal problem, by 1997, corruption has reached the 7th place. Furthermore, she cites a study in which the four-fifth of the Hungarian city population answered that corruption is present in the local administration, and almost half of them reported that corruption is everyday events in the local public life. Furthermore, Simon (1998) carried out a study with the members of parliament; he found that their attitude towards corruption was characterized by beliefs concerning the permanency of corruption; moreover, they saw it as the most important factor in the Hungarians’ general value crisis.

In the following, we will outline some of the possible reasons of this. In Hungary, shortly after the system changed from state socialism to market economy, in the early nineties, several previously state-owned enterprises were privatized in a short period of time. However, the necessary legal infrastructure, and the required political and economical experience was not present in this process (Terták, 2003). Furthermore, due to the above-mentioned negative after-effects of the second economy regarding the problems of legality and the short time-perspective, this period was seducing for the civil servants who have significant decision-making power to become the subject of bribery.

As Mihályi (2003) reports, there were several difficulties concerning the optimal procedure and fair competition in the process of privatization. In the following, I mention among some the troubles regarding the competition for the acquisition of previously state owned properties: (1) decision-making experts generally do not know the details concerning the given enterprise, the prospects of the given sector and possible competitors; sometimes they made their decisions on the basis of particular pieces of information. The main reason of this situation was not the ignorance of these persons, but time pressure. In such circumstances, both lobby activity and corruption could gain significant room. (2) During several years, there were not clarified laws regarding the evaluation of different aspects of the applicants and the
manner of paying. The lack of this kind of regulation was a forcing bed for corruption. (3) Under political pressure, or due to lobbying, there were several cases in which not the best applicant acquired the previously state-owned company, because the tender was written in a manner that fits to the chosen applicant. (4) The danger of the conflict of interest was inevitable concerning privatization in Hungary due to the small size of the country. In such circumstances the danger of corruption was high.

Beyond privatization, another notable area of corruption – and, as we will see it is the case recently – concerns public procurements. As Terták (2003) mentions in 1999, 5% of the value of public procurements became a slush-fund. During the public procurement procedures the grand amounts and the relatively secure money earning possibilities on the one hand motivated great proportion of entrepreneurs who, in several cases, did not compete honestly with their competitors. In this case, similarly to the privatization, laws and regulations were not perfectly adapted to the given situation, especially in the first half of the 1990’s (see in details Dessewfy, 2003). Furthermore, at the beginning of the 1990’s, the liberalized oil-import also opened the door to the corruption. For example, legally the minimal guarantee for protracted customs duties was one million forint. Toll-keepers defined one million forint as a guarantee in such cases when the value of the imported gasoline was several hundred times more than this minimal guarantee. Toll-keepers, who had suppressed salaries, in that period, earned illegally a significant amount of money due to bribery. Another area of corruption concerned the land certificates after the change of régime: if somebody wanted to clarify more quickly propriety relations concerning a given-land or immovable estate in a quite slow and chaotic administrative system could “grease the wheels” of the administration with bribes (Terták, 2003). Similarly to the above-mentioned areas, in the health-care system, corruption is quite extensively present due to the scarce financial resources, institutional circumstances, ineffective control mechanism, not sufficient motivation of doctors (see in details Sóvári, 2003). Naturally, perception of corruption, at the national level, hardly depends on personal experiences, but more on information that derive from the media. According to Vásárhelyi’s (1998) results, when she asked journalists, corruption and the interwoven nature of political and economical areas are taboos in 1997.

After the short introduction of the different areas in which corruption is present in Hungary, in the following we will summarize a study from Vásárhelyi (1998) concerning the opinion on corruption among top office-holders from jurisdiction, revenue office, customs authorities, police, municipalities and from different ministries. Beyond this representative sample of Hungarians, an opinion poll was carried out regarding this topic. Her first question
concerned the definition of corruption, more precisely the areas and concepts that belong to corruption. Here, we will only present the responses of the employees of ministries. Only 5% conceive tips, 24% paying to doctors in order to have better medical treatment, 52% back-stair influences, 55% different gifts, 65% nepotism, as corruption. Furthermore, the same sub-sample considers acceptable the different following forms of corruption: tips 64%, paying to doctors in order to have better treatment 32%, back-stair influences 36%, gifts 25% and nepotism 27%.

When the author asked about the acceptability of different forms of corruption, both to the general population and to the above-mentioned top office-holders, it was very interesting that the first sample practically did not evaluate as corruption such everyday-relevant forms of corruption, as not giving a bill, paying to doctors in order to have better treatment, giving gifts to public officers. Moreover, about half of the respondents did not find serious problem bribing bank clerks, civil servants, policemen and journalists. However, top office-holders found less acceptable bribing employees similar to them. The possible reason can be the decreased reputation of the institute where they work that these kinds of corruption can cause. Concerning this issue, there was a great difference between the public opinion and the evaluation of the other sample: while the first group is more lenient concerning these forms of corruption, office holders find such behavior much more condemnable. Concerning the incidence of corruption, respondents also had to evaluate several institutions. On the basis of their responses, National Privatization Corporation, banks, political parties, customs authorities and municipalities were the five most corrupted institutions, while religious and educational institutions were among the least corrupted ones.

Furthermore, public opinion evaluates more severely corruption of politicians than of civil servants. Concerning the perceived frequency of corruptive acts, both samples perceive cheating with bills and paying doctors in order to have better medical treatment the most frequent forms of corruption. Moreover, public opinion supposes that corruption is more widespread than professionals who work in the public sphere. In addition, according to top office-holders privatization, public procurements and financial support of political parties are the most affected areas of corruption. On the basis of this study, we can see that, in 1997, according to the Hungarians, corruption was the fourth most serious societal problem; only the expansion of criminality, increase of drug use and the growth of poverty were considered as more serious societal problem according to the majority of the respondents. However, the expansion of corruption seemed to be a more serious problem than unemployment or the question of minorities (gypsies).
Concerning the reasons of the widespread nature of corruption, the respondents gave two main groups of answers: the general moral standard of the country and the economic development of the country. The other reasons can be categorized into three categories: heritage and mentality, bureaucracy and the role of criminal investigation, and publicity. Furthermore, when the author asked top office-holders about the reasons of the unsuccessful battle against corruption, the respondents mentioned three main reasons: the interwoven nature of political and economic sphere, the inappropriate legal regulation and the lack of political intentions towards changes. Concerning this battle, there is a consensus around the efficacy of more severe punishments; however, there is no such agreement regarding the role of legal regulations.

The presence and characteristics of tax evasion in Hungary

Tax evasion is a special type of fraud: an entrepreneur seeks to reduce his/her obligatory contribution towards the state. Hence, tax paying is a financial activity for the nation-wide community and tax evasion can be interpreted in an opposite way. In general, taxes have three functions: they are resources for public goods, they reduce inequalities of incomes, and they control the economic cycles. As Papanek (2003) describes, it is the system change in the transitional economies which has put a heavy burden on citizens. Two kinds of problems arise concerning tax evasion and avoidance in Hungary. The first one refers to a significant amount of loss of state income deriving from organized and large-scale economic delinquency. Furthermore, this phenomenon is widespread in the whole society. Papanek (2003) talks about the relationship between citizens and authorities regarding taxpaying as a “cat-mouse game”. This metaphor is quite close to Kirchler’s (2007) “cop-robber” phrasing.

Concerning the attitudes towards taxpaying, Varga’s research (1994) can provide guidelines. For the question of “How do you feel when you pay taxes?” 54% percent of Hungarians answered “they are taking something away from me”, and only 14% interpreted tax paying as a contribution to something. Regarding tax-paying behavior, Halász (1999) found violation of tax laws among 60% of 190 examined commercial and building industrial companies. Furthermore, in 1998, more than 30.000 individuals’ circumstances of employment were examined in which almost half of them were concerned by at least one form of tax-related malpractices.

From the side of the decision-making models, tax evasion is beneficial if its benefits are higher than the benefits of the honest way (including expected punishments and the risk of
audits) (see in details Kirchler, 2007). The higher punishments require the higher control of the economic participants. Concerning the risk of detection, on the basis of the Hungarian tax statistics, in 1996, an average private person was checked once in a 100 year period, an average private entrepreneur once in a 43 year period, limited partnerships (BT) were checked once in a 33 year period, and finally the LTDs and corporations were checked every 10 years by the Hungarian tax offices (Füsi, 1996).

Tax evasion can also be interpreted as a social dilemma. If there is only one person in a community who is involved in tax evasion, on the one hand, he/she will avoid the charges, hence, he/she will have higher personal benefits, and on the other hand, he/she will profit the collective wealth i.e. infrastructure, highways, public institutions. However, the higher the number of cheaters is, the lower collective benefits will be produced and the gains of each member of the community will be reduced. After a certain ratio of cheaters, the financial existence of the whole community becomes questionable (Hankiss, 1982).

Concerning dishonesty, it was a relatively rare case when a dishonest act was confessed by an entrepreneur. In general, the principle of “I’m an angel, the others are the devil” (Hankiss, 1998) lives, entrepreneurs tends to point to the “outgroup” i.e. rivals, other participants or “everybody”. As they said, it can be, on the one hand, a rational way against high taxes. Two possible ways exist to interpret this answer. On the one hand, taxes are really high which is coupled with low risk of detection which leads to high prevalence of tax evasion. And on the other hand, it can be the sign of reduction of the cognitive dissonance concerning dishonest behaviors. Probably both play a role in this explanation. According to the Laffer curve that defines the optimal tax rates, taxes are higher than the optimal in Hungary (Erdős, 1998). This fact supports the idea of rational tax cheating that is more probably present in “cap and robber” type economies that Kirchler (2007) described concerning the slippery slope model.

On the basis of Papanek’s (2003) review, we will now describe the Hungarian societal norms concerning tax behavior. This short overview is supposed to summarize the main characteristics of large scale norms that can have impact on tax behavior. On the basis of the high agreement with the statement of “If somebody would like to get along, he is forced to break certain rules.” (TÁRKI, MHP, Andorka, 1996; Spéder, Paksi, Elekes, 1998; TÁRKI Household monitor, 1998; TÁRKI omnibus 2001/7, cited by Tóth, 2005), attitudes are similar concerning tax behaviors, as well. After the system change – and during the second half of the XXth century – there has been quite a widespread agreement among sociologists concerning the presence of anomie in the Hungarian society (see for example Andorka, 1996), especially
regarding rule breaking activities. However, more recently Skrabski and Kopp (2008) found that most forms of anomie – and not only rule breaking - increased between 2002 and 2006. Furthermore, the rule breaking behavior, opposed to other factors of anomie, does not have a negative effect on Hungarians’s physical health, but works as a positive coping mechanism, at least concerning physical health.

According to Andorka (1996), the roots of anomie can be found in the socialist totalitarian system. The negative aftereffects of the demobilized society (Hankiss, 1989), on the one hand, led to a strong opposition to the authorities, the atomization of the society, distorted individualism (see later the GLOBE study – House, 2004, Bakacsi, 2002, Hankiss, 1982), and the lack of solidarity or feeling of community (Andorka, 1996). As Papanek wrote (2003), citing Andorka (1996), regarding the consequences of such circumstances: “... there are severe disturbances in the functioning of modern societies without living communities and feeling of solidarity.” (p. 461).

The aim of the present study

The aim of this study was the exploration of the propensity of dishonesty in businessmen’s interview on business competition. Despite the fact that there was no explicit question concerning dishonesty in the interview guideline on competition, as we have seen in a previous study (Fülöp & Orosz, 2006) immorality and dishonesty appeared relatively frequently. Therefore, the main goal of a further analysis was to identify the proportion of businessmen who refer to dishonesty, immorality or unfair practices as (1) a personal behavior that he committed in the past, (2) dishonesty that happened between companies, enterprises or organizations, (3) dishonesty that appeared between individuals, and finally, we aimed at establishing the ratio of businessmen who mentioned (4) dishonesty in a general manner in the business sphere or in the Hungarian society.

Furthermore, the appearance of three specified forms of crimes were also counted: (1) tax evasion, (2) corruption and (3) mafia.

Beyond the more general or specified forms of dishonesty, during the analysis we were interested in the proportion of possible reasons that the respondents gave concerning dishonesty, such as the (1) the heritage of socialism, (2) the legacy of system change and privatization, and (3) the perception of unfair or cruel strategies of multinational companies in Hungary, (4) as well as the lack of regulation or its inefficacy.
Finally, the last aspect that was taken into account concerns honest competition; therefore, we counted the cases when respondents talked about (1) honest competition as their personal principle or behavior, (2) honest competition in his/her business sector, (3) the importance of honest competition in general, (4) and their own views about improvement since privatization or the middle of 1990’s regarding honesty in the competitive business life.

In sum, we intended to see, in the light of the above-mentioned historical roots and the present economic and societal situation, which aspects of dishonesty and honesty appear in the context of competition in business life. After the presentation of the results, we will explain possible pathways possible explanations on why and how the above described factors related to socialism, elite selection and the change of regime can explain the relatively high presence of the moral dimensions in the interviews of businessmen.

**Participants**

In order to examine this, altogether 202 in-depth interviews were carried out, with 71 (35.1%) business people from the capital of Hungary, Budapest, and 126 (62.4%) from other cities of the country (5 missing data). The age range was 23 to 65 (average age 43.3 years). 31% of the participants were women and 69% men. Regarding the profession of the respondents: 27.4% were president or chief executive of companies; 17.4% were manager, 2% Agent, 38% were entrepreneur owners of the company in which he/she works; 2% were economic expert, 5.5% worked in the competitive sphere, 7% worked in higher positions in the financial sector, generally in banks, and there was one person who was retired.

**Method**

After collecting the demographic data, Marta Fülöp and her colleagues carried out an in-depth interview with the participants of the business world. The first part of the in depth-interviews aimed at revealing the concept of competition and the competitive strategies Hungarian business people employ in their private and their professional life and the way they handle competition among their employees. This part concentrates on the dimension of morality/immorality. Despite the fact that none of the questions focused explicitly on this problem, this aspect appeared spontaneously in the answers of most of the interviewees. Hence, we decided to analyze this topic in the frame of the study. The approximately 70 minutes long interviews were transcribed and content analyzed and qualitatively different categories were set up.
The process of category forming

During the content analysis, the main interest implied counting the occurrences of the analysed categories. We were interested in analyzing, not only the verbal data, but also its message regarding the moral dimension of competition. The smallest unit of analysis was a sentence in which the interviewees referred to this dimension. The coding categories emerged on the basis of previous studies (Fülöp & Orosz, 2006; Orosz, 2007). In the first study (Fülöp & Orosz, 2006), we saw that immorality appeared frequently in the interviews. In the second preliminary study which analyzed the immorality in the competitive business life (Orosz, 2007), some main categories emerged: (1) immorality in general which contains sentences and paragraphs in which businessmen talked about immorality in the Hungarian competitive business life, and (2) more specific forms of immorality of competition which constituted the second category. Here, subcategories were distinguished, as governmental favoritism, the non-meritocracy-based nature of connections, tax evasion, and lying. (3) The third category contained elements which were evaluated as the most unacceptable for the respondents. Within this category, different subcategories were created, which included corruption, cruelty and aggression between competitors, and sexuality as a tool to success. Finally, in this analysis honesty-related claims were also analyzed; however, without further differentiation of this issue. These categories were restructured in the present study in order to have a more detailed insight of different aspects of competition’s morality dimension that appeared among businessmen.

In the present study, the corpus from the previous study (Orosz, 2007) was analyzed in a more detailed manner. Furthermore, I carried out a word-based search analysis on the transcript of interviews on the basis of the most important immorality-related terms (see Table 9) in order to confirm that all of the relevant sentences will be analyzed. These words were selected on the basis of the previous study (Orosz, 2007).

<table>
<thead>
<tr>
<th>Fair</th>
<th>Corrupt</th>
<th>Lie</th>
<th>Public procurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moral</td>
<td>Bribe</td>
<td>Multinational</td>
<td>Privatization</td>
</tr>
<tr>
<td>Honest</td>
<td>Blackmail</td>
<td>Monopole</td>
<td>Abuse</td>
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<tr>
<td>Correct</td>
<td>Tax</td>
<td>Rule</td>
<td>Steal</td>
</tr>
<tr>
<td>Hard</td>
<td>VAT</td>
<td>Regulation</td>
<td>Cheat</td>
</tr>
<tr>
<td>Though</td>
<td>Social insurance (SI)</td>
<td>Connection</td>
<td>Justice</td>
</tr>
<tr>
<td>Cruel</td>
<td>Socialist</td>
<td>Relation</td>
<td>Healthy</td>
</tr>
<tr>
<td>Aggressive</td>
<td>Communist</td>
<td>Acquaintance</td>
<td></td>
</tr>
<tr>
<td>Ruthless</td>
<td>Change of regime</td>
<td>Concentration</td>
<td></td>
</tr>
</tbody>
</table>

*Table 9. Words of confirmatory analysis regarding the corpus*
In the present analysis, lying and sexuality as tool to success as a separate category was dropped out due to the low frequency of these issues. Furthermore, the dimension of cruelty and aggression was removed from the analysis as a separate category, because in several cases, even if businessmen evaluated the related behaviors unacceptable, they did not perceive always them as immoral. Finally, governmental favoritism appeared generally in the context of corruption or the negative evaluation of connections, therefore this category was also removed. However, the relevant sentences and paragraphs that belonged to this previous category were grouped in the category of corruption with the negative aspects of connections.

The method in which the content-analysis was carried out is similar to previous ones by Fülöp et al. (Fülöp & Orosz, 2006). In the following, the used categories will be presented. In this study, the preliminary study’s (Orosz, 2007) general dishonesty category was recategorized in more detailed dimensions. Therefore, this category, which refers to the perceived immoral competitive behavior or strategies, contains four subgroups. The first subgroup covers claims of businessmen where they talked about their own immoral behavior that they committed in the past. The second subgroup includes such immorality-related issues when respondents talk about immoral competition between companies, enterprises or organizations. The third subgroup considers such immoralities that occurred in interpersonal relationships in the business sphere or in the organization. Finally, the fourth category refers to such claims in which businessmen talk about the presence of immorality in a general manner within the business sphere, economy or public moral which is in relationship with competition.

In the interviews, beyond general occurrence of immorality, three salient and more specific issues of dishonesty were analyzed separately. The first one included claims of businessmen concerning the presence of corruption and bribery in the field of business competition; the second was in relationship with tax evasion; and the third considered mafia and organized crime issues. This third sub-category was not dealt with in a separate category in the previous analysis (Orosz, 2007).

Furthermore, in this analysis, we aimed at distinguishing in a more detailed manner the perceived reasons of immorality in the field of competition. Therefore, four categories were distinguished on the basis of the obtained data. The first two refer to the historical legacy of Hungary. On the basis of the revealed data, socialism and the change of regime appeared separately as perceived reasons of the presence of dishonesty, therefore, these categories were distinguished from each other. The third reason of immorality that emerged during the analysis refers to the negatively evaluated impact of monopolies that are perceived to lead to
immoral competition. Finally, the inappropriate conditions that derive from inconvenient regulations were perceived as the source of immorality in business competition.

During the analysis, not only immorality-related issues were examined, but also topics which are in relationship with honesty and fair business behavior. In this main category, six subcategories were distinguished. First of all, we were interested in the proportion of participants who mentioned honesty as a personal principle. Furthermore, the second subcategory refers to statements in which businessmen talk about their sector in which competition was perceived as being basically honest. Beyond this category, the next subcategory contains parts of the interviews in which respondents revealed the importance of honesty in general, in a general manner, without self-reference. The fourth examined subcategory concerned the perceived improvement in Hungary regarding fair competitive behavior. Finally, parts of the interviews were analyzed in which businessmen mention what should be done in order to make fair business competition. Regarding this aspect, two main categories emerged: the first concerns the importance of socialization, while the second is in relationship with improved regulations.

Finally, in the previous analysis (Orosz, 2007), the category non-merit based connections was interpreted as a specific form of perceived immorality. In this study, connections become a new dimension of analysis in which, on the basis of attitudes towards connections, three categories were distinguished. In the first one, similarly to the previous study, parts of the interviews in which the role of connections is perceived negatively are grouped here. Sentences and paragraphs of the interviews evaluated neutrally are integrated in the second category. Finally, in the third category, we put claims in which respondents talk about the role of connections in a positive manner.

**Results**

**Immorality**

Immorality in a general manner in the business sphere was mentioned by 54% of respondents. 8.9% mentioned dishonesty between enterprises or companies, and 4% mentioned concrete cases in which dishonesty appeared between individuals. Finally, 9.4% cited a case in which he/she was dishonest in a given business related situation. If we take into account all of the above-mentioned categories, 61.9% of the respondents mentioned at least one form of those. However, this latest number lacks specified forms of dishonesty that businessmen mentioned,
i.e. tax evasion and corruption. Furthermore, this category does not contain possible reasons of dishonesty that businessmen gave.

Immorality in general (54%)

This part of the interviews shows that, according to the respondents, getting rich in the competitive business sphere strongly depends on the use of unfair strategies. We can see in the extract below that the respondent talks about immorality in a general and pervasive manner.

“I think that every millionaire in Hungary, who did not win the lottery, but worked in the competitive sphere, got rich by the usage of immoral tools.” (He is a 39 years old director of a company from Budapest)

Dishonesty that was committed or accepted by the respondent himself (9.4%)

This interviewee rationalizes immorality and bad reputation by telling that she would not like to be (seen) soft-headed. Furthermore, according to her getting ahead in the business competition requires the usage of immorality.

“Then it was strange for me that we have such reputation (they are unfair) abroad, but it is better to have such reputation instead of being stupid......Don’t have illusions, if you want to go to the top, you have to use sometimes immoral tools. Otherwise, you would be disadvantaged.” (She is a 33 years old manager from the countryside)

In this case, dishonest strategies appear as a response to others’ dishonesty. The respondent does not see other means against a dishonest competitor, besides immoral strategies. Furthermore, he thinks that responding dishonestly is acceptable in such circumstances; however, he is aware of the alternative of honest means.

‘So if everybody would toe the line of honesty in Hungary, at this moment dishonest tools of competition would disappear... because how you beat a dishonest person? If and only if I use dishonest tools. At least I choose among those tools that I consider acceptable, but I know very well that it could be done honestly also.’ (He is a 48 years old chief executive.)
Dishonesty between companies (8.9%)

In this part of the interview, a director complains about the immoral strategies of the competitors. In most cases, the respondents talked about immorality which derives from their competitors.

“However, I don’t agree with the absolutely immoral competition. So, they (the competitors) use so many dirty tools, they compete behind the back of the others and they circumvent the others.” (She is a 51 years old director from the countryside)

Dishonesty between individuals or within organizations (4%)

Here, we can see that the respondent emphasizes the immorality dimension in a destructive competition between employees where the stake is the preservation of their positions. Such examples are interesting in the light of Tjosvold et al.’s (2003, 2006) work who demonstrated that the perceived fairness of competition is in strong relationship with the constructiveness of competition in organizational context.

“In several cases the employees would like to achieve their aims (preserving their positions) in an immoral manner. They disturb the colleague when he is doing his job, they criticize him and they put inadequate pressure on him. Therefore, he starts to believe that he can’t accomplish his job and that he is not his right place. He won’t rely on himself.” (He is a 40 years old director at a company from the countryside)

Specified forms of dishonesty: corruption, tax evasion and mafia

Three forms of specific illegal acts were distinguished during the analysis: corruption, tax evasion and mafia. Corruption appeared the most frequently among these topics (31.7%), tax evasions emerged less often (8%), finally mafia was mentioned by less then 4 percent of the respondents. On the basis of these results businessmen mention corruption as the most prevalent relatively specific form of dishonesty that appears in the context of competition.

Corruption and bribery

In the sample, 31.7% mentioned the presence of corruption and bribery in the context of the Hungarian competitive business life. Most of them referred to the benefits of corruption; they
talk about this topic in general which appears to be due to the Hungarian economic and political sphere which is tightly interwoven and which leads to biased decisions in the field of public procurements. However, other businessmen talk about large scale entrepreneurs who bribe public servants and politicians in order to have competitive advantage. Furthermore, the unjust evaluation of the tenders, the issue of bribery and decisions about public procurements also frequently emerge regarding corruption in the context of competition. In sum, corruption seems to be an important specific illegal act within dishonest behavior that has considerable negative impact on honest and productive competition between companies. In the following two examples will be presented which reflect on the above-mentioned aspects of corruption.

Money and corruption as means for success

“With money and connections you can achieve everything, and corruption is flourishing from large scale companies to banks. The monopole capital controls the politics, the courthouses, the police, and every authority that count... The media is controlled by the economic elite. The power of money can make wonders; it can create a saint from a Mafioso also. Scandals come up only in cases when dark economic authorities sometimes are in conflict with each other. The social security and tax authorities are the monsters of the everyday people, but they can catch the large scale entrepreneurs.” (44 years old commercial entrepreneur)

Corruption and public procurements

“Finally, that will win the tender who bribed the most. Is it a dishonest competition? No, it is pure corruption. There is no problem with the competition (for tenders). But the way how it is realized is false. This is general in Hungary nowadays.” (She is a 52 years old chief of a company)

Tax evasion

Almost 8% of the businesspeople referred to tax evasion. They talk about too high tax rates; they see tax evasion as a norm and they see themselves as “stupid” because they pay their taxes properly. Furthermore, they talk about Hungary as a country in which culture of tax paying is missing and in which tax burdens are too high. The number of 8% can be interpreted quite high because we have to keep it in mind that there were no questions regarding the relationship between dishonesty and competition. From this perspective, 8 percent mentioned
taxpaying, and among these responses, it was quite visible that this topic, on the one hand appeared in a negative context, and on the other hand, almost in all cases when this topic turned up, cheating and fraud were also present.

Tax evasion as a norm – those who pay tax are seen stupid

“Everybody tries to pay less to the State. No one wants to pay taxes, hence those who pay taxes have to pay instead of the others too, so we are in this stupid category too. We have to pay more because a lot of people don’t pay taxes.” (49 year old company director)

Too large tax burdens – business people are pushed into the shadow economy

“Nowadays, the problem is that the burden is outsized. Therefore, the majority of the entrepreneurs are forced to work in the shadow economy. It happens in a great scale. People are engaged in immorality in order to earn great amount of money.” (54 years old entrepreneur)

Mafia and organized criminality

The proportion of entrepreneurs who talked about the role of mafia was even lower 3.5% than the ratio of respondents who mentioned tax evasion. This relatively low number suggests that, on the basis of the perception of businessmen in the field of business competition, the role of mafias can be quite small.

“The organized criminality is really part of the economy, and if it is needed they use the unusual methods in order to intrude to the legal market and launder the money with questionable derivations.” (He is a 47 years old entrepreneur)

In sum, the proportion of respondents who mentioned at least one of these specified forms of immoralities was 37.6% of the total sample. Taking into account both general appearance of immorality and its more specific forms, 71.8% of the respondents mentioned such phenomena at least once during the interviews. This proportion can be evaluated relatively high, taking into account that there was no explicit question regarding these issues, and such frequencies emerged spontaneously. Moreover, in several cases dishonesty related
topics appeared as the first sentence of the whole interview when they started to talk about competition in general.

**Reasons of dishonesty**

Businessmen not only mentioned the presence of dishonesty during the interviews, but they also talked about the reasons they attribute to explain why such immoral or illegal acts occur.

The legacy of the socialist regime

5% of them mentioned socialism as a possible cause of dishonesty.

“The socialist regime has extinguished not only the value of competition but loyalty too. There was a saying in that time: ‘If something is not welded or fixed to the concrete, it is sure that it will be stolen…’ We fight against the shadow of this mentality.” (He is a 49 year old president of a Hungarian firm)

Change of regime

12.4% referred to the change of regime as a reason of such circumstances.

“In the beginning of the 1990’s there were a lot of persons who took advantage of the chaotic and not clear circumstances of competition. It has been arranged in the level legislation, but it is the same in the field of law enforcement or its application.” (He is a 22 years old director.)

Destructive effects of monopolies

12.4% talked about the dishonest strategies of multinational companies that came to Hungary after the change of regime.

“The business competition in Hungary nowadays could get out of control - get out of control so sickly - because a foreign business politics was forced on us that we had to adopt immediately... The cause is the appearance of multinational companies who practically enslaved the whole Hungarian small-scale commerce.” (He is a 41 years old owner of a company from the countryside)
Unregulated nature of competition

Finally 22.3% found that problems with regulations of competition are sources of dishonesty.

“The present situation is chaotic, the conditions of competition aren’t clear.” (49 year old owner of an enterprise)

„The conditions and the rules of the competition hasn’t been worked out, there aren’t well based dimensions where the competition should run.” (25 year old entrepreneur)

Businessmen mentioned several perceived causes and reasons of immorality of business competition. Taking into account both general and specified forms of immorality and its reasons, altogether 79.2% mentioned at least one from these categories (for a summary see Table 10). In the following, the opposite side: the occurrence of honesty will be presented.

| Immorality in general | 54% |
| Dishonesty between companies | 8.9% |
| Dishonesty between individuals or within organizations | 4% |
| Dishonesty that was committed or accepted by the respondent himself | 9.4% |
| Corruption and bribery | 37.1% |
| Tax evasion | 8% |
| Mafia and organized criminality | 3.5% |
| Reasons of dishonesty: The legacy of the socialist regime | 5% |
| Reasons of dishonesty: Destructive effects of monopolies | 12.4% |
| Reasons of dishonesty: Change of regime | 12.4% |
| Reasons of dishonesty: Unregulated nature of competition | 22.3% |
| Altogether | 79.2% |

*Table 10. The occurrence of immorality-related categories in the interview with businessmen*

**Honesty**

Not only the presence of dishonesty, but the prevalence of honesty-related claims was also measured. We were interested in the exploration of how honesty appears in the interviews. Therefore, four categories were distinguished from this perspective. The first of these concerned honest competition as a personal principle or behavior of the respondents. More than one third (36.6%) of the interviewed businessmen talked about honesty as a personal principle, or mentioned their fair competitive behavior, even if it led them to disadvantage. The second category contained responses regarding honesty in his/her business sector; only
10% of respondents talked about his/her sphere in this manner. The third category concerned 3.5% of the individuals who emphasized the importance of honest business competition. The fourth category was mentioned by 6.9% of the businessmen who perceived an improving tendency regarding honesty in business competition.

Honesty as personal principle (36.6%)

Honesty as a personal principle appears due to several reasons. There are businessmen who mention it as a general opinion; others refer to it because it is important to have a good reputation in the market; some of them even talked about honesty as a profitable way in longer term. These arguments were interwoven; in several cases we did not aim to distinguish these reasons, but with the following examples we would like to demonstrate how they appeared in the interviews. As we can see in these below mentioned cases, frequently an opposition appears when the ingroup containing the “me” is honest facing the dishonest others. This kind of contrast appears in the case of the majority of the respondents.

“I think that we have to keep the rules of fairness and other moral things regarding business transactions, because if we won’t do that, the reputation of that company of enterprise will worsen. Consequently they can’t surely stay and compete any longer. I don’t think that aggression or immorality could influence success in a positive way.” (36 years old regional representative of a wine company)

Honesty in the own sector (10%)

Here, we would like to provide only some of the examples in which businessmen referred to honest competition in their own sector.

“In the financial sector we have to talk about fair means (as fair competition). However, superficiality as a Hungarian characteristic is present everywhere which is the lack of appropriate knowledge in several cases. That’s why there are a lot of victimized people”. (43 years old commercial manager)

Importance of honesty in general (3.5%)
Competition ‘motivates people to achieve better, and honest competition, what is very important, it can be evaluated always as a positive thing.’ (48 years old entrepreneur)

Perceived improvement concerning honesty in the field of business competition (6.9%)

There were businessmen who mentioned improvement since the systemic change. Others mentioned the positive impact of European Union; while some mentioned that they perceive that corruption became less salient than according to the official reports. Finally, some of the businessmen talked about the strengthening merit-based selection mechanism and the decreased importance of the non merit-based political connections in business life. In the following extract, we can see an example regarding the decreased salience of corruption nowadays.

“For example during the last ten years, since I’ve done this company I experienced much less cases of corruption than a couple of years before. According to many of others the level of corruption increases, however, I don’t think so. In my view on the contrary, it decreases.” (She is a 39 years old director of a company)

Suggestions what should be done in order to make fair business competition

Two main dimensions emerged in the interviews that could contribute to the progress of honest behavior. The first refers to the role of socialization (5.4%), while the second reflects on the importance of regulations (11.9%).

Socialization (5.4%)

“If somebody brought honesty from his childhood, in this case he will be much more intended to be honest (in his life). So I think that I got such baggage from my parents, where (his home) honesty played a very important role, and I try to live in this way. It doesn’t exclude competition, but it emphasizes its honest and fair side.” (46 years old entrepreneur)

Regulations (11.9%)

“In those fields where individuals and companies compete it is necessary to have flexible, but well-defined rules of competition... ...the knowledge of the rules of competition is very important, and keeping these rules or at least similar interpretation of these rules (among
competitors), as well... "It is important to establish such regulations that can be accepted by the majority of the people. It could guarantee that keeping these rules won’t cause difficulties.” (49 years old executive operating engineer from the countryside)

In sum, 54.5% of the businessmen mentioned at least one of these categories, i.e. honesty as a personal principle, perceived honesty in their own sector, importance of honesty in general, perceived improvement regarding honesty, the role of socialization and regulation in the establishment of moral competition. These responses generally appeared as suggestions to what should be done if we would like to achieve a more honest competition in the world of business. We can see that approximately half of the interviewees talked about the importance of fair business practices. For a summary see Table 11.

<table>
<thead>
<tr>
<th><strong>Honesty as personal principle</strong></th>
<th>36.6%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Honesty in the own sector</strong></td>
<td>10%</td>
</tr>
<tr>
<td><strong>Importance of honesty in general</strong></td>
<td>3.5%</td>
</tr>
<tr>
<td><strong>Perceived improvement concerning honesty in the field of business competition</strong></td>
<td>6.9%</td>
</tr>
<tr>
<td><strong>What should be done in order to make fair business competition: socialization</strong></td>
<td>5.4%</td>
</tr>
<tr>
<td><strong>What should be done in order to make fair business competition: regulations</strong></td>
<td>11.9%</td>
</tr>
</tbody>
</table>

*Table 11. The occurrence of honesty related dimensions*

**Connections**

In this dimension, businessmen’s perceived evaluation of the role of connections in business sphere was analyzed. The main purpose was to see in which cases were connections seen in a negative, neutral or positive manner. We found it important to see this dimension because in several cases, during the analysis, connections were mentioned in a negative manner. More precisely, respondents who mentioned connections with negative terms were against its negative impact i.e. the negligence of the meritocracy based values, as good product quality or services, efforts, low prices, high performances or high standard tracking records. In order to see the proportion of entrepreneurs who benefit or suffer from these business relations, we counted the cases in which entrepreneurs talk about business relations (1) in a negative, counter-competition manner which is opposed to merit-based values, (2) in a neutral way where good relationships appear neither in negative terms, nor positively evaluated, and (3) in a positive way, when good relations appear as an advantage or as merit-based social capital, that derives from hard work and good reputation. The first category within this dimension refers to the negative aspects of connections which were mentioned by 30.2% of the
businessmen in our sample, while it was neutrally dealt with by 14.4% of the respondents, and only 13.4% talked about business connections in a positive manner. Altogether, 27.8% of the respondents referred to positive and/or neutral aspects of connections. In the following, we will select some examples from these three dimensions.

Negative aspects

Connections as tools that makes possible of getting along. In these cases generally connections are opposed to merit-based values.

“There are back-stair influences, connections and not always clear connections. People take advantage on these connections, they can be easily successful or they can achieve good positions. Whereas, another type of people who is intelligent and ambitious, but who doesn’t have such dishonest advantages, will become disappointed or he gives it up after a while and it can lead to bad consequences...” (65 years old retired businessmen)

Neutral aspects

In this category, such opinions were gathered in which there was no explicit positive or negative evaluation of the relationships. As we can see below, these persons do not condemn the negative results nor emphasize the positive consequences of connections. Furthermore, these relationships generally take place purely in the business sphere. They are less prevalent between partners of state owned and private organizations. In the following case, beyond the neutral evaluation, we can also see the decreased importance of connections.

“So, after thirty years of work I would say that connections play less important role. In the multinational companies it doesn’t count at all... I feel that generally I can build good relationship with everybody, but it has no significance in the case of a multinational company... It is pretty bad for those, who think that everything can be resolved by connections and after the first negative feed-backs they fall down. That’s life, it has to be realized!” (He is a 54 years old director of a private company from the countryside)

Positive aspects
Similarly to neutral aspects of connections, positive evaluations of connections appear generally in the field of business relations, in which both parties belong to the economic sphere and none of them belongs to the state-owned companies.

“I emphasize constantly the importance of personal connections. The recommendation of friends, acquaintances and business partners and their connections count very much.” (He is a 38 years old director from the countryside)

In sum, regarding the number of businessmen who mention positive and neutral role of connections versus the proportion of interviewees who talk about its negative side, we can see that the third group is larger (see Table 12).

<table>
<thead>
<tr>
<th>Connections negative aspects</th>
<th>30.2%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connections neutral aspects</td>
<td>14.4%</td>
</tr>
<tr>
<td>Connections positive aspects</td>
<td>13.4%</td>
</tr>
</tbody>
</table>

*Table 12. The occurrence of connection-related topics*

**Conclusion**

As we have seen in the historical overview, there are deep roots of the high presence of dishonesty related issues in Hungarian businessmen’s way of thinking about competition. However, we cannot ignore honesty related responses. There are at least five main societal roots that contributed to the formation of such circumstances.

First of all, as we have seen on the basis of the description of Hankiss (1982), anomie related issues, such as alcoholism and suicide rates, started to rise from the fifties; furthermore, in the following decades, anomic conditions stayed relatively unchanged (Andorka, 1994). In addition, rule-avoidant aspects of anomie have stayed at a high level since the end of socialism (TÁRKI, MHP, on the basis of different years Andorka, 1996; Spéder, Paksi, & Elekes, 1998; TÁRKI Household monitor, 1998; TÁRKI omnibus 2001/7, cited by Tóth, 2005). Moreover, as Skrabski and Kopp (2008) found, rule-avoidance, in spite of other dimensions of anomie, has health protecting results. Therefore, from this perspective, it might be interpreted as a positive coping strategy. The deeply rooted anomie, and especially the ignorance of rules, can have a significant impact on the high presence of dishonesty in the Hungarian competitive business life.
The second aspect concerns the standard of living. In the early fifties as we have seen previously, Hungarians were forced to work very hard in order to accomplish the prescribed norms (Huszár, 1982). However, such efforts were rarely rewarded in a tangible manner at the individual level (Horváth, 2007; Horváth, Majtényi, & Tóth, 1998). In this period, the winners of work competition, the stakhanovists were a tool of the socialist propaganda in order to motivate other workers (Horváth, Majtényi, & Tóth, 1998). Later, in the seventies and eighties, the socialist ruling class put more emphasis on the enhancement of standard of living, which allowed people to acquire more prestige prestigious goods and which induced social comparative processes regarding their properties (Hankiss, 1989; Nagy, 1997). One way of accomplishing such motivations was working in the second economy. The second economy was, almost until the system change, a more or less illegal activity in opposition to the socialist ideology (Hankiss, 1986). Beyond the questionable legality of incomes from second economy, it also had some positive consequences, namely hard work in the second economy led to more prosperity for the family (Gábor & Galasi, 1981; Héthy & Makó, 1971; Nagy, 1997). After the system change, these habits appeared in a mixed way. On the one hand working hard, and on the other hand not following the regulations or ignoring the legality of money earning activities appeared simultaneously (Kolosi & Sági, 1996). Therefore, this constellation could lead to such strategies in which hard work plays an important role, but in which the legal circumstances and rule keeping behavior were less relevant.

The third aspect concerns the dimension of individualism. On the basis of the GLOBE study, Hungarian managers were evaluated as the second most individualist among 61 measured countries (Bakacsi et al., 2002). The possible reasons are manifold: the above-described and deeply rooted anomie has to be mentioned firstly. The reasons of the anomie were described above in details. Here, only the most relevant ones will be mentioned: in the fifties the authorities made serious efforts in order to demobilize the Hungarian society. They created a societal atmosphere in which incertitude was prevalent; they did not allow people to assemble; they prohibited spontaneously emerged communities, etc (Hankiss, 1982). Such directions led to the atomization of Hungarian society. Furthermore, in the second economy, generally everyone was interested in his/her own business; people worked on their private businesses at their official workplace, etc (Gábor & Galasi, 1981). After the system changed, the situation became unstable, the previously fixed and relatively comfortable conditions fundamentally changed, and a Social-Darwinist competition started for the previously state owned resources i.e. privatization and its aftereffects. These circumstances led to such consequences that the members of the previously atomized and demobilized society were
unable to form spontaneously emerging communities. As a result of it, a distorted individualism was generated which can be characterized by short-term time perspective and habits of rule avoidance could lead to the aggressive, cruel and individual-focused strategies in the business sphere in which the perspective of other participants of the market is ignored (see for example Bakacsi et al., 2002; Fülöp & Orosz, 2006). Furthermore, this strong individualism is also paired with severe problems of regulations.

The fourth factor that can be taken into account refers to the distorted importance of connections in the socialist system and its legacy regarding today’s businessmen. During the socialist regime a relatively small politically engaged elite governed the economy and the whole country (Hankiss, 1989). Political loyalty was expected and it was a beneficial way towards keeping positions and good reputation, among both Stakhanovist workers earlier and technocrats later (Horváth, Majtényi & Tóth, 1998; Konrád & Szelényi, 1989). Within state-owned firms and in most of the administrative institutions topdog-underdog type of relations were typical; horizontal relationships were minimized (Hankiss, 1989). All of these features were coupled with an atomized society in which trust towards other individuals was damaged because of fear of informers who reported everything towards authorities. In such circumstances, good relationship with political authorities, led, on the one hand, to the overrated vaule of social capital (Bourdieu, 1977) and, on the other hand, this system favored selective processes based on both loyalty and competency (Konrád & Szelényi, 1989) – in which loyalty has primacy over merit-based values. Such circumstances did not allow the participants of the second economy – who worked more or less illegally (Gábor & Galasi, 1981), and who were more or less afraid of informers to learn cooperation and to trust each other. Finally, due to the slow but influential effects of the ruling class on the technocracy, the value of merit-based competition lost more or less its importance (Konrád & Szelényi, 1989). All of these causes and consequences led to heighten the importance of relationships in the business sphere after the system changed. However, as we saw in the results, nowadays still two times more businessmen see the negative side of connections than its neutral or positive traits. Furthermore, the “crony bias” phenomenon (Hellman & Kaufman, 2004) and the Global Competitiveness Report of 2006 refer to the same problem. Therefore, very probably, the business life carries this non-merit-based and counter-productively perceived aspects of business competition. Taking into account the fact that there was no direct question regarding the role of connections in business life, it can be concluded that the thirty percent who complained about such aspect is quite a high proportion. Furthermore, these negatively seen aspects refer to the relationship between politics or public procurements, while positively
evaluated relationships were mentioned mostly in the case of transactions of companies in which none of those were state-owned.

Beyond sociological factors, it is important to see the reasons that interviewees gave regarding the presence of dishonesty in business sphere. The most frequently mentioned explanation for dishonesty concerned issues of regulation. One fifth of the businessmen mentioned such topics that can be important information regarding how perception of dishonesty could change in a positive manner. Regarding regulations, better legislation and enforcement of laws were mentioned as problematic issues. Relatively small number of respondents mentioned the legacy of socialism as a reason of dishonesty; however, more than 10 percent referred to the system change and the presence of monopolies and the appearance of multinational companies. Therefore, issues regarding enforcement or application of laws seem to be the most salient perceived cause of dishonest competitive behavior.

These results show that the negative impact of systemic change is generally also associated with immoral enrichment, lack of regulation, the negative impact of the connections and difficulties of the standard of living. However, only a quite small percentage of Hungarian businessmen perceive improvement regarding honesty. On the opposite side, the proportion of interviewees who see that competitive business life became even more dishonest than in the period of system change was negligible.

While regulations influence the style of competition, monopolies try to diminish it. The case of multinational companies seems to be duplex: on the one hand, they suppress or constrain competition for acquiring consumers similarly to monopolies, but on the other hand, they create a dog-eat-dog price competition between their suppliers. Furthermore, this very intense competition between suppliers is also perceived as being coupled with abuse of power of the multinational companies.

Furthermore, the role of connections with political participants is perceived most frequently in a negative way. The most negatively seen aspect of the interwoven nature of such relationships concerns the issue of corruption. According to the respondents, perceived corruption is very frequently seen in the field of public procurements; however, it rarely appears in business sectors in which politics is not present (for example such counter selective strategies in which due to nepotism or bribing a new post is given). The high presence of corruption can be interpreted as the after-effect of the previously existed loyalty and non merit-based political-economic relationships. Furthermore, far reaching consequences of second economy can also be mentioned, in which both corruptive acts, opaque and legally undeclared relationships were present between political and economic spheres.
There are some results that can be interesting from the perspective of tax behavior. In general, if the issue of taxes appeared in the interviews, generally it referred to tax evasion and the main rationalizations referred to too high tax burdens, the general appearance of tax evasion, as perceived norm, and the third one was the competitive disadvantage if somebody pays honesty his/her duties.

**Discussion**

On the basis of the historical, sociological and psychological overview on immorality and competition and taking into the result of the content analysis of the interviews, we can see (1) the severity of problems with immorality in business competition, (2) the possible resources that can be important in order to change this situation, and (3) the possible ways and factors that could push business competition in a more honest direction. Here, I would like to talk mainly about psychological aspects and perspectives - and not about economy, law or sociology related issues, which are at least as important as psychological factors.

Regarding the severity of problem, 79.2% of the interviewed respondents talked spontaneously about at least one form of dishonesty during the interviews. The dimension of morality appeared several times at the beginning of the interviews when respondents were asked about competition in general. Sometimes this dimension appeared in the first sentence of the interview. These results suggest that immorality appears saliently in the social representation of competition of Hungarian businessmen. In most of the cases, dishonesty came into view in the context of business practices. However, it appeared relatively rarely as a personal act, but it was committed by someone else, or the “others” in general. In sum, dishonesty is a very central issue in the way of thinking of Hungarian businessmen and it seems to cause serious problems in different forms. Regarding specified forms of immorality corruption appeared most frequently, which probably derives from the same sources as the negatively evaluated relationships with public and private sphere. The most frequently mentioned reason of dishonesty refers to the deficiencies of regulations, more precisely the law enforcement or applications.

Beyond this negative picture, we have to talk about the resources that the participants of business life possess. More than half of them mention in some way the importance or presence of honest business behavior. More than one third of them talk about honesty as their personal principle. Every tenth person sees his/her sector in which competition is fair. And
almost 7 percent mention improvement in this dimension. We have to mention here that the number of respondents who talked about their honest behavior was three times more than the number of businessmen who talked about their own dishonest behavior. Obviously, there are self-defending strategies and mechanism behind this distortion in the light of the above-mentioned, as almost 80 percent of the respondents talked about at least one form of immoral competition. However, at least among one third of respondents, there is a need that motivates them to behave honestly, even if they could not, due to the business environment. Such norms and intentions can be interpreted as useful resources that can seriously contribute to the establishment of a more honest business competition in Hungary.

Taking into account the reasons of dishonesty, businessmen perceive that deficiencies of regulations cause the main problem. Therefore, better legal conditions and improved application of laws could contribute seriously to the creation of more honest perception of competition in the Hungarian business sphere. However, beyond better regulations in order to create optimal circumstances of fair business competition, it is necessary to deal with the legacy of the socialist system as well as of the change of regime.

The second half of the tasks is the battle the legacy of previous system and the systemic change. Taking into account that at least the last fifty years were far from optimal regarding the emergence of a fair, merit-based competition, it is crucial to put much emphasis on the long-lasting socialization of tomorrow’s businessmen. With the words of Kornai János (2003):

“This does not mean that the change can simply be left to time, while people watch passively as dishonesty and oppressive uncertainty spread around them. The tasks begin with upbringing and education—in families, schools and universities. Untold good (and damage) can be done by the press and television. The approach citizens take is shaped by the words and deeds of every public figure and workplace manager. This is an unending task. I wish myself and every member of post-socialist society the patience and endurance it requires.” (Kornai, 2003, 11.o)

I have to mention here again, the results of the interview study lead to the choice of research topic. The extensive presence of several aspects of immorality that businessmen mentioned spontaneously concerning competition gave me the motivation to explore this field in a more detailed manner. Furthermore, the comparison between French and Hungarian students allows me to make culture-specific conclusions regarding this issue. The use of the
theoretical background of social representations made possible not only the exploration of cultural characteristics, but similarly to Kirchler’s notion (2007) I intend to research on the interplay between competition- and immorality-related situational/interpersonal variables and culture specific characteristics. Finally, in this research project I aimed to explore social representations from the perspective of behavior also. The research on the social representation of competition and its immoral aspects among young citizens who are still in educational context and who can be tomorrow’s businessmen is supposed to contribute to Kornai’s (2003) “undending task”.

Hungarian and French economics students’ social representation of competition, fraud and corruption

Introduction

In the transition from post-socialist state to market economy, competition has become a key concept during the last twenty years. In the socialist period, competition was an ideologically denied and banned phenomenon, but after the shift of regime it became quickly part of everyday life. The system change required the quick overwriting of views toward competition (among other notions, for example capitalism, market economy, etc.) from attitudinal, value and conceptual perspective (Fülöp, 1995).

For Van Hoorn et al. (2000), children who grow up in societies under structural change constitute the “omega-alpha generation”. In the Hungarian case, this generation lived their childhood in the communist-socialist system, but their adolescence and adulthood in the period of the new regime, in which they adopted gradually the concept of free market economy and democracy. Van Hoorn et al.’s research was carried out between 1991 and 1995 among Hungarian and Polish adolescents; their results show that, after a short period, when they perceived these changes with great expectations, by 1995, their pessimism became dominant because of the high inflation rate, the huge income differences, the experienced greediness and the lack of self-control whereby some people used illegal means to get along.

Fülöp et al. (2004) and Davies et al. (2004) got consistent results when they analyzed the views of Hungarian and English teachers towards entrepreneurs and enterprise and the business world in general; these comparative studies found several differences, among them the dimension of morality was one of the most salient one. On the one hand, English teachers emphasized the value of meritocracy, pragmatism and transparent competitive processes, whereas, on the other hand, Hungarian teachers perceived the Hungarian business world as a land of corruption and immorality.
**Competition in Hungary and France**

The Hungarian competition concept was extensively researched by Fülöp et al., among adolescents, teachers, businessmen, in the field of education, business, from several intercultural perspectives.

The French competition concept wasn’t extensively researched. Abric (1987) examined the effects of social representations on behavior in several prisoner’s game situations; his book showed different possible interpretations of the same situation i.e. dissimilar representations entail different behaviors. The research on the social representation of competition continued with a Hungarian-French comparative study on adolescents who studied economy (Roland-Lévy, Fülöp & Berkics, 2009). On the basis of this study, we can conclude that both concepts have mainly positive and similar dimensions; the central core of both representations contains victory and sports, and negative aspects are also visible like rivalry and defeat. In the Hungarian teenagers’ representation, the economy and work have a more central position than in the French sample. One visible difference revealed that French pupils don’t like interpersonal competition, while the economic aspects are perceived more positively. The opposite is true for Hungarians: they have more negative views about economic competition, but they have fewer problems with its interpersonal aspects. Hungarian teenagers like competition in general; for them competition is motivating, good, important, useful and interesting, for their French peers it is more stressful, bad, uninteresting and de-motivating. One of the most interesting results refers to the view which is shared by both groups: competition is rarely an efficient way to solve economic problems.

Beyond these differences, the two concepts are similar in several dimension, it shows the representations’ rapid transformation of the post-socialist “omega-alpha” generation towards their peers who live in the society which possesses values. The question arises what are the differences between the two groups concerning the representation of the competition’s moral dimensions.

**Corruption in Hungary and France**

‘Corruption exists when an individual illicitly puts personal interests above those of the people and ideas he or she is pledged to serve.’ (Klitgaard, 1988, pp. xi). In front of other more specific economic definitions in the everyday life corruption is a term which refers to certain kind of moral condemnation. Following the theory of social representation, corruption
is a term which derives from the economy; hence, during its anchoring to the everyday knowledge it transforms conforming to the given-groups’ pre-existing concepts. While the different groups have diverse theoretical and cultural bases, Hungarians differently interpret corruption from their French counterparts. On the basis of the Transparency International CPI (Corruption Perception Index) which refers to the perceived presence of the corruption in a given country, in 2006, Hungarians (5.2; 41\textsuperscript{th} place) have basically lower points and a lower position on an international list than France (7.4; 18\textsuperscript{th} place). This means that, in Hungary, the perceived presence of corruption is essentially higher than in France. On the basis of the global corruption barometer (not expert’s opinion), in France, among several institutions, the legislative, judicative system and police are the most infected; this affects mostly the political and economic life, and not the personal life. As we saw above, for Hungarian teachers (Fülöp, 2004) and businessmen (Orosz & Fülöp 2007, Orosz, 2007) the phenomenon of corruption is strongly attached to the economic competition; moreover, in this last study, the public procurements and tenders appeared as a very salient field of corruption.

**Fraud in Hungary and France**

In a study the GfK group’s (2008) representative research compared 19 European countries regarding the evaluation of cheating in different spheres of the life. Their results show that 89\% of the Hungarians perceive cheating as a fundamental problem regarding tax behavior, 78\% have a similar opinion concerning academic dishonesty, while 65\% locate it in workplace, and 64\% also place it in romantic relationships. French people see the situation less seriously: 71\% of them think similarly concerning taxes, while 65\% in the field of romantic relationships, and ‘only’ 58\% in school-related issues where they perceive cheating as a fundamental problem. More specifically, 43\% of the Hungarians see the situation of academic dishonesty worsening during the last 10 years. However, this number is “only” 33\% among the French people. In sum, Hungarians perceive cheating as a more serious problem then French people. Parallel differences also appear at the level of academic dishonesty, where the tendency towards worsened situation is visible.

As we have seen in the literature part, according to the Longman Business English Dictionary (2007) fraud can be defined as “a method of illegality getting money from a person or organization, often using clever and complicated methods.” Due to the relative lack of cross-cultural researches that measured the pervasiveness of fraud or its social representation in Hungary and France, we will compare these countries on the basis of their level of shadow
economy. Shadow economy according to its broad definition includes "those economic activities and the income derived from them that circumvent or otherwise government regulation, taxation or observation". Furthermore, shadow economy includes both legal and illegal activities, monetary and non monetary transactions (Schneider, 2004). Similarly to fraud, shadow economy is a complex phenomenon; there is no complete overlap between the two concepts (i.e. fraud and shadow economy); however, both suppose a kind of rule-breaking process in the economic context. Whereas, in the first case, the victim can be another person or the organization, in the second case the victim is generally the government or the state.

Schneider (2004) estimated the size of shadow economy in OECD, and transitional countries, on the basis of the data of 1990/1991, 1994/1995 and 1999/2000. Based on this model, in Hungary the size of shadow economy was 21.4% of the GDP in 1990/1991, it was 23.9% in 1994/1995, and 25.1% in 1999/2000. A similar analysis showed that, in France, shadow economy was 9% of the GDP in 1989/1990, 14.5% in 1994/1995, and 15.2% in 1999/2000. The differences between these two countries are quite large. At the beginning of nineties, in Hungary, shadow economy was two times greater in comparison with France regarding its share of the GDP. This difference decreased until the beginning of the 2000’s, but the difference between the proportions was still more than 65%. These data suggest that shadow economy was more extended in Hungary during the nineties than in France.

According to Schneider (2004), taxes, social security contributions and tax pressure are the most important causes of the shadow economy. In the following, instead of going deeper into the analysis of different causes of shadow economy, we will mention some researches which are in relationship with the social representation of taxes. The social representation of tax evasion was approached by Eric Kirchler et al. (2003). With the methods of associations, they described the different representations of tax avoidance, tax evasion and tax flight. Their results support the hypothesis that tax avoidance is a legal and clever activity, which is different from tax evasion. This latest is illegal, criminal and risky, while tax flight is close to the concept of the possibility of saving tax abroad (Kirchler et al., 2003). Furthermore, the authors found dissimilar representations of different social groups i.e. entrepreneurs, blue collar workers, white collar workers, civil servants and students. Entrepreneurs perceive tax as a loss of freedom or constraint, while blue collar workers, white collar workers and civil servants have a rather exchange relationship concerning taxes, they also mention different public goods; finally, students are not yet concerned in tax paying, hence, they mostly have theoretical knowledge about this field. On the basis of these studies,
a major assumption was formulated regarding the present study: in order to avoid topics which are independent from the practices of our group, the more general term of fraud is used as a stimulus word, since it is a more specific topic, closer to the everyday life of the students.

**Participants**

104 French (64 females and 40 males) students majoring in economy and 107 Hungarian (63 females and 44 males) students also majoring in economy participated in the research. Hungarians’ average age was 21.3 years old, the French average age was 21.4 years old. The two samples were almost identical concerning their age, sex proportion and studies.

**Methods**

The free association method is widely used in the social representation theory (Abric, 1994b; De Rosa & Kirchler 2001; Kirchler et al. 2003; Roland-Lévy, 2004, 2009; Roland-Lévy & Berjot, 2009; Rouquette & Flament, 2003; Vergès, 1992, 1994, 1995). In this study, respondents had to associate 5 words to competition, corruption and fraud. The three words were presented on the same sheet, but their order was systematically changed. During the analysis, first frequencies of associations are counted and the mean rank in the production series is calculated. The associations were not categorized semantically. Terms with a high frequency and a low mean rank are assumed to belong to the central core, while words with a high frequency but a high mean rank or a low frequency but a low mean rank fit in the first two peripheripheral zones. The rest of the spontaneous productions constitute the far periphery of the representation. Two other indexes were calculated concerning the density of the representation. The first called diversity, determines the quotient of the number of different words and the number of all words. Diversity shows the consensus of a group toward a representation, the smaller this value the larger the consensus of the given object. Hapax is the quotient of associations, which were mentioned by only one respondent, and the number of different word mentioned by the population. Hapax refers to the cognitive organization of a representation, the lower this value the higher the cognitive organization is (Rouquette & Flament, 2003).

**Results**
Competition

The social representation of competition among Hungarian students doesn’t have a really stable central core; 23% of the respondents mention “Victory” and 18% “Success” but both of their rank mean is relatively high (3.3). The strongest element in the periphery is “Sport”, 14% of the respondents mentioned it with an average mean rank (2.7). Furthermore, the strong peripheral elements are the “Combat” (11%; 2.4) and “Development” (9.3%; 1.6). The economic concepts are presented in a fragmented way: “Business” (6%; 2.2), “Money” (6%; 3.3) and “Profit” (4%; 2.3). Altogether, the economic concepts compose a relatively small part of associations. The moral dimensions i.e. “Honesty” (4%; 3) and “Fair play” (3%; 4) were strongly underrepresented in the sample See Table 13 for summary. The coherence (diversity: 0.49) and the cognitive organization (hapax: 0.65) are not too strong. These results show that there is not a strong consensus among the examined Hungarian sample concerning competition. The responses are quite diverse and the proportion of words that were mentioned by only one respondent was high also.

We have found several gender differences; for Hungarian boys “Sport” was the most salient element of the central core, more than one third of them mentioned it (34%, 2.7); “Success” also has a central role in the representation, but its rank is relatively high (24%, 3.3). The term of “Victory” has central role for boys (23%; 3.3) as well as for girls (24%; 3.3), but its rank is still high. In sum, the central core of the girls’ representation is less stable, than the boys’, their representation is around sport which constitutes a solid central core, while for girls the competition is a more general, less stable and basically result oriented (victory, success).

<table>
<thead>
<tr>
<th>High frequency</th>
<th>Low rank mean (below or equal with 2.7)</th>
<th>High rank mean (above 2.7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High frequency (above or equal with 16%)</td>
<td>Central core</td>
<td>First periphery</td>
</tr>
<tr>
<td></td>
<td>Victory (23%; 3.3)</td>
<td>Success (18%; 3.3)</td>
</tr>
<tr>
<td>Low frequency (below 16%)</td>
<td>First periphery</td>
<td>Secondary periphery</td>
</tr>
<tr>
<td></td>
<td>Sport (14%; 2.7)</td>
<td>Goal (8.4%; 3.1)</td>
</tr>
<tr>
<td></td>
<td>Combat (11%; 2.4)</td>
<td>Loser (7.5%; 4)</td>
</tr>
<tr>
<td></td>
<td>Development (9.3%; 1.6)</td>
<td>Money (6%; 3.3)</td>
</tr>
<tr>
<td></td>
<td>Business (6%; 2.2)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Power (5%; 1.8)</td>
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</table>

Table 13. Hungarians’ social representation of competition.
The central core of French students’ competition representation seems to be more stable: 41% of them mentioned “Sport” with a respectable rank mean (2.1) and 20% wrote “Contest” with an equally low mean rank (2.1), finally “Self-Accomplishment” (17%; 2.7) belongs to the central core. “Emulation” (15%; 1.7), “Challenge” (14%; 1.7) and were present in the first peripheral zone. “Victory” also has high frequency (17%), but its rank was very high (3.6). The economic associations constitute a very small part of associations as “Capitalism” (2%; 4.5) and “Enterprise” (2%; 2.5). “Fair play” (6%; 3.7) and “Dishonesty” (1%; 4) were not a central dimension in this sample (for summary see Table 14). The coherence (diversity: 0.44) and cognitive organization (hapax: 0.62) seem to be stronger than average values, which means that there is a quite strong consensus about the meaning of competition among French students.

Concerning gender differences, “Sport” was more dominant for boys (48%; 1.6) than for girls (38%; 2.5). In both group, it was the strongest part of the representations’ central core. In the boys’ group, the other central element was “Emulation” (20%; 1.7). Beyond “Sport” girls’ central core of competition contained “Contest” (22%; 2.4), “Self-achievement” (22%; 2.5), and “Challenge” (19%; 1.8). The differences appear in the first peripheral sphere too; for boys, “Victory” is a quite frequent term (30%), but its mean rank is considerably high (3.8), for them the “contest” (13%; 2) and “self-exceeding” (10%; 4) are not so central as in the case of girls. In sum, girls’ central core is more multi-faceted: beyond sport, the opposition, self-exceeding and challenge have a central role, while for boys the representation is basically around the concept of sport and emulation.

<table>
<thead>
<tr>
<th>Low rank mean (below or equal with 2.7)</th>
<th>High rank mean (above 2.7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High frequency (above or equal with 16%)</td>
<td>Central core</td>
</tr>
<tr>
<td>Sport (41%; 2.1)</td>
<td>Victory (17%; 3.6)</td>
</tr>
<tr>
<td>Contest (20%; 2.1)</td>
<td></td>
</tr>
<tr>
<td>Self-Accomplishment (17%; 2.7)</td>
<td></td>
</tr>
<tr>
<td>Low frequency (below 16%)</td>
<td>First periphery</td>
</tr>
<tr>
<td>Emulation (15%; 1.7)</td>
<td>Capitalism (2%; 4.5)</td>
</tr>
<tr>
<td>Challenge” (14%; 1.7)</td>
<td>Fair play (6%; 3.7)</td>
</tr>
<tr>
<td>Dishonesty (1%; 4)</td>
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</tbody>
</table>

Table 14. French students’ social representation of competition.
French students’ central core was visibly stronger than Hungarians due to the presence of sports which did not belong to the central core of Hungarians’ representation. Furthermore, concerning the other parts of the central core, Hungarians are more aim-oriented (victory, success), while French students are mostly concerned with the process of competition (sport, contest, emulation). Considering the first periphery, both Hungarians and French students emphasize the developing and self-motivating functions of competition i.e. development and self-accomplishment (mostly French girls). However, challenge appears more saliently in the representation of French students (especially among girls) in comparison with Hungarians.

**Corruption**

In the central core of the social representation of corruption of Hungarians, the most salient components are “Politics” (48%; 2.4), “Money” (40%; 2.4) and “Police” (23%; 2.6). While in the first periphery “Fraud” (12%; 2.4), “Power” (12%; 2.7), “Mafia” (11%; 2.6) and “Bribery” (11%; 2.8) appear. On the basis of these results, we can see that for Hungarian students, politics, money and police constitute the central core. In the first periphery appear the explicitly negative concepts i.e. fraud, power, bribery and mafia (for details see Table 15). According to its diversity (0.44) and hapax (0.71) results, we can conclude that the consensus concerning corruption is relatively strong among Hungarian students regarding what corruption is, but this representations’ cognitive organization is fairly loose; it means that the elements which belong to this concept concern or pervade diverse fields. In this group, gender differences are not notable.

<table>
<thead>
<tr>
<th></th>
<th>Low rank mean (below or equal with 2.7)</th>
<th>High rank mean (above 2.7)</th>
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<tbody>
<tr>
<td><strong>High frequency</strong> (above or equal with 16%)</td>
<td>Central core</td>
<td>First periphery</td>
</tr>
<tr>
<td>Politics (48%; 2.4)</td>
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<tr>
<td>Money (40%; 2.4)</td>
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<tr>
<td>Police (23%; 2.6)</td>
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</tr>
<tr>
<td><strong>Low frequency</strong> (below 16%)</td>
<td>First periphery</td>
<td>Secondary periphery</td>
</tr>
<tr>
<td>Fraud (12%; 2.4%)</td>
<td>Bribery (11%; 2.8)</td>
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</tr>
<tr>
<td>Power (12%; 2.7%)</td>
<td>Office (6%; 3)</td>
<td></td>
</tr>
<tr>
<td>Mafia (11%; 2.6)</td>
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<tr>
<td>Hungary (8%; 2.6)</td>
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<td></td>
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<tr>
<td>Buerocracy (7%; 2.7)</td>
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</table>

*Table 15. Hungarians’ social representation of corruption.*
In the French’s central core, the concept of “Brown envelope” is the most prominent term (26%; 2.6). “Politics” is also a frequently appearing word (38%), but its mean rank is moderately high (2.9); “Money” (25%; 3) has similar characteristics regarding its frequency and mean rank than “Politics”, therefore these elements belong to the periphery. Furthermore, the periphery contains such elements as the concept of “Mafia” (19%; 3), “Power” (15%; 2.9) and “Referee” (13%; 2.5). Thus, French students’ corruption representation is organized around the concept of brown envelope, but politics and money seem to be important elements as well (for summary see Table 16). For French students, the consensus about the corruption is relatively strong (diversity: 0.4), and its cognitive organization is relatively stable (hapax: 0.62).

<table>
<thead>
<tr>
<th>Low rank mean</th>
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<tr>
<td>(below or equal with 2.7)</td>
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<tr>
<td><strong>High frequency</strong></td>
<td><strong>Central core</strong></td>
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<tr>
<td>(above or equal with 16%)</td>
<td>Brown envelope 26%; 2.6</td>
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<tr>
<td><strong>Low frequency</strong></td>
<td><strong>First periphery</strong></td>
</tr>
<tr>
<td>(below 16%)</td>
<td>Referee (13%; 2.5)</td>
</tr>
<tr>
<td></td>
<td>Dishonesty (7%; 2.4)</td>
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</table>

*Table 16. French students’ social representation of corruption.*

Concerning gender differences of French students, among girls, “Politics” (44%; 2.9) and “Brown envelope” (41%; 2.6) were more salient than among boys. Whereas for boys, the term of “Referee” (33%; 2.5) has the most central position in the representation, it was much less prevalent among girls (10%; 2.5). Girl’s social representation of corruption was organized around the concept of politics, brown envelope and money (29%; 3), while boys’ representation was closer to the terms of sports and mafia (25%; 3.5).

Comparing French and Hungarian results, we can see that the concept of politics has a central role in both cases; however, for Hungarians it is more strongly attached to corruption. Furthermore, among Hungarians, money is definitely the part of the central core, while in the French sample it is not considered as a fundamental part of the representation. Visible difference concerns the term of police. Almost one fourth of Hungarians mentioned it with a relatively low rank average; therefore, it belongs to the central core of their representation.
However, only 2% of French associated this word regarding corruption. On the French side, the referee (because of boys) is part of the primer periphery, while only two Hungarians mentioned this concept in the context of corruption. The difference between the cognitive organizations is notable. Nevertheless, in both groups the consensus about corruption is relatively strong, Hungarians’ cognitive organization seems to be weaker than their French peers; it refers to the high number of diverse elements which were mentioned by only one respondent, which make the representation less dense.

**Fraud**

The first aspect concerning Hungarians’ social representation of fraud refers to its loose cognitive organization (hapax: 0.74) and weak consensus (diversity 0.51). Furthermore, their representation did not contain a component which evidently belongs to the central core. “Money” (19%; 2.9) and “Lie” (15%; 1.9) could be two possible candidates, but their relatively low frequency and the high rank of money do not refer to the existence of a well based central core. Considering these results regarding the weak consensus and the loose cognitive organization, it is possible to conclude that the representation of fraud is not crystallized. Beyond the two central core candidates “Academic cheating” (16%; 3.2), “Tax evasion” (10%; 2.2) and “Cards” (12%; 2.8) belong to the most important peripheral part of the representation. For Hungarian economics students, the representation of fraud is a not coherent concept; for them, it principally belongs to money, academic cheating, lie, and other specific fields like cards, game, tax evasion and sport (for summary see Table 17).

<table>
<thead>
<tr>
<th>Low rank mean (below or equal with 2.7)</th>
<th>High rank mean (above 2.7)</th>
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<tbody>
<tr>
<td><strong>High frequency</strong></td>
<td><strong>Central core</strong></td>
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<td>(above or equal with 16%)</td>
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<tr>
<td><strong>Low frequency</strong></td>
<td><strong>First periphery</strong></td>
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<tr>
<td>(below 16%)</td>
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<td></td>
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</tr>
<tr>
<td>Lie (15%; 1.9)</td>
<td>Tax evasion (10%; 2.2)</td>
</tr>
<tr>
<td>Game (10%; 2.6)</td>
<td>Exam (9%; 2.1)</td>
</tr>
<tr>
<td>Politics (9%; 2.1)</td>
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</tbody>
</table>

*Table 17. Hungarians’ social representation of fraud.*
The Hungarian group gender differences concern the field of academic cheating, lie and exams. Academic cheating (boys 20%; 3.1 vs. girls 13%; 3.4) and “Exams” (boys 16%; 2.4 vs. girls (3.2%; 1) are more prominent among boys than among than girls, whereas, the concept of lie (girls 25%; 1.9 vs. boys 9.5%; 2.8) was mentioned more frequently by girls with a lower rank average than among boys. Despite of these differences, the term of Money seems to be a strong part of the representation both among boys and girls (boys 18%; 2.8 vs. girls 17%; 2.6). On the whole, cheating for boys concerns mostly university achievement situations and playing cards; however, for girls it is rather around its social aspects with lies and scams.

Regarding the social representation of fraud of the French students, the cognitive organization is moderately stable (hapax: 0.66) and the consensus regarding fraud is strong (diversity: 0.41). Furthermore, the central core contains the terms “Cheating” (35%; 2.2), “Dishonesty” (22%; 2.6) and “Illegal” (19%; 2). The most important peripheral components are “Money” (20%; 3.1), “Theft” (15%, 2.3) and “Tax evasion” (15; 2.6). In sum, fraud for French students, is dishonesty and/or cheating, which concerns mainly the concepts of illegal money or income, as theft and tax evasion (for further details and summary see Table 18).

<table>
<thead>
<tr>
<th>High frequency (above or equal with 16%)</th>
<th>Low rank mean (below or equal with 2.7)</th>
<th>High rank mean (above 2.7)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Central core</strong></td>
<td>Cheating (35%; 2.2)</td>
<td>Money (20%; 3.1)</td>
</tr>
<tr>
<td></td>
<td>Dishonesty (22%; 2.6)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Illegal (19%; 2)</td>
<td></td>
</tr>
<tr>
<td><strong>First periphery</strong></td>
<td>Theft (15%; 2.3)</td>
<td>Lie (12%; 3.6)</td>
</tr>
<tr>
<td></td>
<td>Tax evasion (15%; 2.6)</td>
<td>Bad (8%; 3.1)</td>
</tr>
<tr>
<td></td>
<td>Crime (8%; 2.4)</td>
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</tbody>
</table>

Table 18. French students’ social representation of fraud.

In the French group, some gender differences were also revealed. Both representations are organized around the idea of cheating (boys 41%; 2.2 vs. girls 30%; 2.1). However, in the representation of boys, tax evasion was more central than in the case of girls (25%; 2.6 vs. 9.5%; 2.7). Cheating, tax evasion and illegal (23%; 1.6) constituted the central core of French boys’ social representation of fraud. Among French girls, the central core is organized around cheating, “Dishonesty” (32%; 2.7) and “Theft” (21%; 2.5). Thus French boys’ social representation of fraud is organized around financial and illegal activities as tax evasion or
money, in the representation of girls’ dishonesty as a social aspect came in the front, beyond the term of theft.

In sum, we can conclude that the cognitive organizations and the consensus of the social representation of fraud were stronger in the French group than in the Hungarian. Therefore, the representation was denser in this group. Furthermore, it had a stable central core which contains cheating and dishonesty contrasting with the central core of Hungarian students which was rather unstable. In this group, the central core included the terms of money and lie. Furthermore, the first peripheral element was the academic cheating which appeared as a very weak component of the representation of fraud of the French group.

Concerning gender differences two interesting data emerged. The first concerned the French boys who mention tax evasion in the central core of their representation, among other rather economic terms, while girls mentioned mostly interpersonal characteristics as dishonesty and lie. The other difference revealed in the Hungarian group is connected to the most frequently mentioned term by boys which was academic cheating.

**Conclusion**

This research showed several differences between French and Hungarian students’ social representation of competition, fraud and corruption. First of all, the cognitive organization and consensus of the competition, corruption and fraud was stronger in the French representations than in the Hungarian ones. These results reflect on the better integration of these issues in the everyday French discourses. The Hungarians know well the meaning of these concepts, but their representation is not yet as solid as their French peers.

Considering the content of representations in the field of competition, Hungarians were more aim-oriented i.e. victory and success, while French students focused more on the process of competition i.e. sport, contest and emulation. Taking into account the first periphery of the representations both Hungarians and French students emphasized the competition developing and self-motivating functions i.e. development and self-achievement (mostly French girls). However, French students’ social representation of competition is rather tied to challenges (mostly for French girls).

On the basis of the analysis of the French and Hungarian results regarding corruption, the concept of politics had central role in both cases. In the Hungarian sample’s representation money and police were definitely part of the central core, while in the French student’s representation such terms were not present in such a fundamental manner. On the basis of the
French representation, the referee (because of boys) belonged to the primer periphery, while only two Hungarians mentioned this concept in the context of corruption.

French students’ representation of fraud had a stable central core which contained cheating and dishonesty. It is, in contrast with Hungarians’ central core of fraud, which was rather unstable due to the relatively lower frequency and higher ranks in the case of most prominent terms such as money and lie. In this group, the first peripheral element was academic cheating which appeared as a very weak component in the French group. Concerning gender differences, two interesting data were emerged: the first concerns the group of French boys who mentioned tax evasion in the central core of their representation among other rather economic terms, while French girls associated mostly interpersonal characteristics as dishonesty and lie. The other difference revealed in the Hungarian sample. In this case, the most frequently mentioned concept for boys was academic cheating, whereas it was less salient among girls.

On the basis of previous researches on businessmen, we expected the high presence of moral dimension in the social representation of the examined Hungarian students. Despite our expectations, this dimension has a low profile role in the representation of competition in both samples. The cause might be the relatively fair nature of school competitions or their environment does not implicate so many immoral acts than the Hungarian businessmen’s world. This argumentation does not seem to be clearly true if we consider the Hungarian boys associations of fraud in which academic cheating was the most central element. This inconsistency can be resolved by taking into consideration the periphery of their representation of competition. The first terms, which arise concerning studies, is the concept of “School” (5%; 2.6), which is in the 17th place, if we consider both the frequency and the mean rank. Such economical concepts as business, money, market, are closer to the central core than the first academic term. Taking into account (1) the relative distance of academic issues from the central core of Hungarian students’ representation of competition, (2) the salience of academic cheating in their representation of fraud, (3) which is almost missing in the representation of competition, we can conclude that Hungarian students do not interpret school as a typical field of competition. Furthermore, on the one hand business world for them – who are outsiders – seems to be a more typical field of competitive than their own everyday context i.e. university or school. On the other hand, the simultaneous presence of low number of moral responses in the representation of competition contrasts with academic cheating which is vigorously present in their representation of fraud.
Therefore, while moral dimensions are highly represented in the businessmen’s competition concepts, for students it is not the case because they do not interpret their school environment as competitive as businessmen perceive competitive their business life.

Students do not conceive exam situations as “real” competitions because exams in Hungary are mostly supposed to be non sum-zero competitions, which are not characterized by negative interdependence, or with the term of the educational literature, students are not graded on the basis of a bell curve. Consequently, everybody can get good or bad grades independently from the achievement of other classmates. The businessmen’s representation of competition in the economic sphere is mostly very intense and sum-zero competition, in which much more often an enterprise’s or individual’s gain is obtained at the stake of his rivals. Therefore, in the first case (the lack of competition or open competition) cheating is less irritating, because personal achievement directly do not depend on the others. However, in the second case (closed or sum-zero competition) usage of fraud or corruption can be a question of life or death by leading to success for one part as competitive advantage and harms as competitive disadvantage, respectively to the competitors. But, from the perspectives of norms and socialization, academic cheating can be one of the bases of the dishonest or non-meritocratic behavior, especially if the graduate student, after her/his studies finds a job in the crossfire of the dog-eat-dog Hungarian business life.
A Confirmatory Study about the Social Representation of Competition and Fraud of French and Hungarian students

Introduction

Hungary is a post-socialist country, in which, after the change of regime, market economy was introduced. This rapid shift changed fundamentally the way of thinking of Hungarians about competition and market economy. Competition was a denied and banned concept before the change; however, later it became an accepted and praised concept in several part of the everyday life (Fülöp & Berkics 2002). Besides the positive aspects of competition, several negative aspects of competition appeared. 16-18 years old students (Fülöp & Berkics 2002), teachers (Fülöp, 1992) and businessmen (Fülöp, 2006) mention immorality as a negative side of the Hungarian competitive life. These results could be understood as the reflection of dissatisfaction with the effects of the change of regime, as well.

Ferge’s research (1995) shows that most of the Hungarians lost their feeling of security and their trust in the future also weakened after 6 years of system change. Most of the Central-European countries anticipated the difficulties of transition, but the experiences of Hungarians did not meet their expectations to such a high degree than in the case of several other transition countries. The lower income level, the appearance of unemployment, and the subjective poverty were the most influential factors in generating this dissatisfaction. In 1994, 73% of Hungarians felt that their financial situation actually declined in comparison with the living standards of 5 years earlier (Andorka, 1994).

These results are in accordance with Van-Hoorn et al.’s (2000) researches who interrogated adolescents of the transition period and found that the great expectations of the positive events, in 1991, diminished by 1995. During this period, the concepts of market economy step by step built in the everyday knowledge of Hungarian youngsters. The above-mentioned negative effects also influence the concept of competition, which became a more and more integrated part of the everyday discourses of Hungarians.

During the change of régime from socialism to market economy, values changed, as well as the regulation of business practices. During this period, regulatory institutions had to adapt to the new conditions. This adaptation process was not perfect on the basis of the International Crime Business Survey (Del Frate, 2004), which compared 9 post-socialist
capitals (Tirana, Minsk, Sofia, Zagreb, Budapest, Vilnius, Bucharest, Moscow, Kiev). This survey found that tax regulations, corruption, changes in laws, inflation, imprecise regulations, political instability, crime and insecurity are the main obstacles for business in these countries. Among these countries, Hungarians have the most frequent direct experiences (42% of the surveyed businessmen) of businesses with criminal victimization and/or bribery. A quarter of Hungarian businesses were victims of fraud by outsiders, while 11% experienced fraud from employees. Moreover, businessmen from Budapest are the less satisfied (70% of them) among these capitals with the way the police dealt with crime problems facing businesses in their area. The three main causes of the dissatisfaction were: 1. the police were involved with corruption, 2. they did not catch offenders, 3. they took too long to react to incidents. In sum, the dissatisfaction with the change of régime, the problems deriving from crimes and the lack of institutional regulations can all explain why the concept of competition conveys immoral aspects.

**Cultural differences between Hungary and France**

In the Inglehart Values map (2002) the main difference between Hungary and France is in the survival-expressive axis: for French, expressive, postmodern values are more important; however, among Hungarians, survival, modern values are more dominant. It means that in France the growing up generation took survival for granted. In Hungary, survival values are more important, that is why the work and money orientation are crucial. Furnham et al.’s argument (1994) can explain why competition and money orientation is a more central concept in countries where survival values are more important. If economic wealth is secured, money orientation will lose its importance; in this case enough money will be available, thus money-earning becomes less central in these circumstances. From the French side, the post-materialist values have more importance: such as tolerance of diversity, interpersonal trust, participation in political and economical decision-making. These “luxury” values may have a central role only in the case in which survival is taken for granted.

This difference also appears in the comparative research of Roland-Lévy, Fülöp and Berkics (2009), when they compared French and Hungarian 16-18 years old students who had special economics education. The majority of French students’ agreed with the “hard work will result its rewards” statement, but this was only true for a minority of Hungarians. Moreover, for Hungarians, competition rewards the strong but not the week. This latter statement reflects the social-darwinist aspect of the competition. Similar notions about the
selective and social-darwinist aspects of competition are revealed from studies with teachers (Fülöp, 1992), and other comparative researches with students (Fülöp, 1999).

The above-mentioned differences also appear in the businessmen’s values on the basis of the GLOBE study (Bakacsi, 2002; House, Hanges, Javidan, Dorfman, & Gupta, 2004; Jesuino, 2002), which compared middle-level managers in 61 countries, including Hungary and France. Among the several measures, five dimensions show visible differences between France and Hungary. To sum up these differences, Hungarians have shorter time perspective and lower uncertainty avoidance in comparison with French. This difference can be interpreted as a consequence of the change of regime in Hungary, as in this rapidly changing period it is difficult to calculate predictable future events, thus planning for the far future sometimes cannot be considered as a good strategy. In France, the economic system is more stable, even if French society is a dynamical changing society, they can plan for the future and they have a longer time perspective.

Hungary is the second most individualist country according to the institutional collectivism dimension of the 61 examined countries in the GLOBE study; however, France’s value of this dimension is close to the average. The pattern is similar in the field of assertiveness: Hungarians have a low score in this field, while French have an average value. It means that aggression and confrontation are more frequent elements of the everyday life of Hungarian managers in comparison with their French counterparts. Finally, performance orientation’s score is average among French managers, but low among Hungarian managers; it implies that Hungarians have low achievement orientation in terms of hard work.

On the basis of the above-described value differences between Hungarians and French (Bakacsi et al., 2002; House, 2004; Jesuino, 2002), and of the previously detailed differences regarding the size of shadow economy (Schneider, 2004), the differences between attitudes toward cheating on the basis of the GfK comparison (GfK, 2008), and of the previous study on students’ free associations, we can expect differences concerning French and Hungarian students’ social representation of competition and fraud.

However, prior to the description of the aim of the present study, it is necessary to talk about the reasons why the examination of corruption ended up in the research project. The

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23 1. Uncertainty avoidance is defined as the extent to which members of an organization or society strive to avoid uncertainty by reliance on social norms and bureaucratic practices to alleviate unpredictability.
2. Future orientation reflects engagement with planning, investing in the future, and delaying gratification.
3. Institutional collectivism which reflects on the need for collective action and collective distribution of rewards.
4. Assertiveness reflects assertivity, confrontation and aggression in social relationships.
5. Performance orientation is the degree a society encourages and rewards group members for performance improvement and excellence.
main reason, as we have seen in the description of the social representation of corruption, is that the representation of corruption is far from the everyday experience of the students. Therefore, due to our aim regarding the examination of behavioral aspects of social representation in different cultures, it would be hard to find such situations in which corruption related behaviors could be examined. Furthermore, the results of the previous study showed that the related aspects generally appear not only in an abstract manner, but they are visibly far from the everyday experiences of the examined population i.e. students. However, in the case of fraud, the field of academic dishonesty appeared as an ideal topic which provides such circumstances in which behavioral aspects of social representations can be analyzed; furthermore, academic dishonesty seemed to be closer to the everyday practices and performance situation of students. Consequently, instead of devoting more attention to corruption, the focus turned on the social representation of fraud.

**The objective of the study**

The following study continues the exploration of the previous associative study in which a further method (Rouquette & Flament, 2003) was used in order to confirm the centrality of previously observed differences in central core elements between Hungarian and French students social representation of fraud and competition. The necessity of the confirmatory study derives from Abric’s (1994b) methodological suggestion. According to him, the previously used free associations are useful methods in order to explore the main domains and aspects of a social representation. However, in order to confirm that the data provided thanks to free associations is reliable, further confirmatory studies are needed. Following this methodological suggestion in the next section, the confirmatory study will be presented.

**Confirmation of the first associative study: competition and fraud**

**Participants**

127 Hungarian (51 males and 76 females) and 115 French (60 males and 55 females) students participated in this research. Hungarians average age was 21.6 years; the French average age
was 21.6 years. Students attended the same universities and faculties than in the previous study, their major concerned economy and/or business studies.

**Methods**

Students had to choose the five most characteristic terms from a list of 20 words concerning competition and fraud (Rouquette & Flament, 2003). The questionnaire was translated, and back translated from Hungarian to French, by bilingual lectors. Chi square tests were used in order to find significant differences between Hungarian and French students’ frequency of answers.

The list of competition-related terms and expressions contained the most important produced words of the first study in the following proportion: 8 terms and expressions from Hungarians, 8 terms from the French students, and 4 shared by both groups. The terms were selected on the basis of their frequency and mean rank. Words with the highest frequency and lowest mean ranks were chosen. The common words which met these requirements, regarding competition, were “Victory”, “Combat”, “Win” and “Sport”. The chosen Hungarian words were the following “Success”, “Development”, “Goal”, “Loser”, “Footy”, “Fight”, “Business” and “Money”. The chosen French words were the “Contest”, “Self-achievement”, “Emulation”, “Challenge”, “Motivation”, “Competitive examination”, “Stimulating”, and “Will” (see Table 19). These words were mixed up and students had to select the 5 words that according to them are in the strongest relationship with competition and which characterize best the idea of competition.

The number of common words is low (4) since we concentrated on the most central terms for both groups. The low number of common words also reflects on the relatively week overlap between French and Hungarian students most important associations.

<table>
<thead>
<tr>
<th>“Hungarian” words</th>
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<th>Common words</th>
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<tbody>
<tr>
<td>Success</td>
<td>Contest</td>
<td>Victory</td>
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<tr>
<td>Development</td>
<td>Self-achievement</td>
<td>Combat</td>
</tr>
<tr>
<td>Goal</td>
<td>Emulation</td>
<td>Win</td>
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<td>Loser</td>
<td>Challenge</td>
<td>Sport</td>
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<tr>
<td>Footy</td>
<td>Motivation</td>
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</tr>
<tr>
<td>Fight</td>
<td>Competitive examination</td>
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</tr>
<tr>
<td>Business</td>
<td>Stimulating</td>
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</tr>
<tr>
<td>Money</td>
<td>Will</td>
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</tbody>
</table>

*Table 19. The used competition-related terms in the confirmatory analysis on associations*
The same procedure was carried out regarding French produced terms. However, in this case, the number of common words was only three, i.e. “Money”, “Lie” and “Tax evasion”. Hungarian terms or expressions were the following: “Academic cheating”, “Cards”, “Scam”, “Game”, “Sport”, “Exam”, “Politics” and “Competition”; the asked French terms were the following: “Cheating”, “Dishonesty”, “Illegality”, “Theft”, “Crime”, “Bad”, “Embezzlement”, “Corruption” and “Customs” (see Table 20).

<table>
<thead>
<tr>
<th>“Hungarian” terms</th>
<th>“French” terms</th>
<th>Common terms</th>
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</thead>
<tbody>
<tr>
<td>Academic cheating</td>
<td>Cheating</td>
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<tr>
<td>Cards</td>
<td>Dishonesty</td>
<td>Lie</td>
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<tr>
<td>Scam</td>
<td>Illegality</td>
<td>Tax evasion</td>
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<td>Sport</td>
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<tr>
<td>Exam</td>
<td>Bad</td>
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<tr>
<td>Politics</td>
<td>Embezzlement</td>
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<td>Corruption</td>
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<td></td>
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<td>Customs</td>
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</table>

*Table 20. The used fraud-related terms in confirmatory analysis on associations*

Results

The results of the confirmatory study reinforced the results of the free association task in the field of competition. In the following, the main differences will be described. Hungarian students chose significantly more often the term of “Aim” (Chi$^2$ = 4.69, p < 0.05) and “Success” (Chi$^2$ = 27.7, p < 0.001) in the provided list. Furthermore, they tended to also select more often than the French participants the word “Victory” (Chi$^2$ = 3.21, p < .073) in the list of words. Moreover, significantly more Hungarians chose the following terms: “Fight” (Chi$^2$ = 21.07, p < 0.001), “Money” (Chi$^2$ = 20.91, p < 0.001) and “Development” (Chi$^2$ = 21.69, p < 0.001).

French students chose significantly more frequently the exression of “Self-achievement” (Chi$^2$ = 57.19, p < 0.001) and “Challenge” (Chi$^2$ = 4.7, p < 0.05); moreover, contest (Chi$^2$ = 53.46, p < 0.001) and “Sport” (Chi$^2$ = 24.44, p < 0.001) also appeared as very caracteristic of competion for the French sample. These results reinforce the results of the first associative study: Hungarians have a more goal-oriented representation of competition i.e. “Aim”, “Success”, “Victory”. Furthermore, the concept of money also belongs to this
category, as a reward of competition or a source of extrinsic motivation. There is only one concept which concerns the process of competition (“Development”) which is significantly more frequently selected from the given-list by Hungarian students than by their French peers. However, French students seem to put more emphasis on self-developmental personal qualities such as “Self-achievement” and “Challenge”, while the goal-orientation is not so prevalent for them.

The results of the confirmatory task also reinforced the results of the free associations of fraud. In the following the main differences will be taken into account. Hungarian students select “Lies” more frequently ($\chi^2 = 5.78, p < 0.05$), “Theft” ($\chi^2 = 5.5, p < 0.05$), “Politics” ($\chi^2 = 13.07, p < 0.001$) and “Academic cheating” ($\chi^2 = 12.82, p < 0.001$); however, French students select “Embezzlement” more often ($\chi^2 = 41.88, p < 0.001$) as well as “money” ($\chi^2 = 11.07, p < 0.001$). These results suggest that Hungarian students’ social representation on fraud is more politics oriented, while French students’ representation is in a closer relationship with money and embezzlement. Concerning academic cheating, we found again a strong significant difference which could imply that it is a more elaborated concept within the Hungarian student’s social representation on fraud than in the social representation of French students. In sum, these results reinforce the results from the first associative study.

In the following study, we will be looking for the main relations between the most important elements of each representation.

The structure of the French and Hungarian students’ social representations on competition and fraud – relationship between the most peculiar elements

In the same questionnaire, after the confirmatory questions, the goal was the examination of the structure of the social representation of competition and fraud. Therefore, in the following part of the same questionnaire, students were instructed to draw the most important relationships between the previously revealed, most important elements of the social representations of competition and fraud, separately. On the basis of the first study, the first twelve most important terms were chosen: Hungarian students were instructed to find the most important relationships between the most central words that in the previous associative study Hungarian students gave. The task was the same for the French students; however, they had to find the relationship between the most important terms that French students gave in the first associative study. In sum, in this task students had to find the main relationships between
the most important elements of social representations of fraud and competition in order to describe the structure of the relationships.

Methods

In this task the same subjects had to make six to twelve relations between the twelve words, first about competition, then about fraud. The method is based on previous work by Vergès (1995). The twelve words regarding competition and fraud (respectively) were chosen on the basis of the first study, but in this case the words of Hungarians and French were not mixed up because of the low overlap between the most central words of the two groups. Hence, French students made relations between the most central 12 words that French students mentioned in the first study; and Hungarians connected the 12 most prominent words that Hungarian students mentioned in the first study. During the analysis, the program of SIMI2000 (Vergès, Zeliger, & Junique, 2002) was used in order to create maximal trees which should demonstrate the most relevant relationships between the above-mentioned central elements. The software only took into consideration the highest possible relationships. Furthermore, relationships which were taken into account were drawn by at least 21 students. These maximal trees are presented in the Figures 5., 6., 7., and 8. In these figures, the numbers on the lines show the number of participants who connected the two given terms.

Results

In Figure 5, Hungarians’ social representation on competition is presented; it appears as relatively fragmented and includes four fields. The most extended field refers to the “Results of competition”. The second one can be labeled as “Battlefield” which contains fight and combat; the third field refers to “Sport”, and the fourth shows relationships between development and goals.

These four separated “islands” can derive from the previously measured lower level of coherence and cognitive organization. Furthermore, as it can be seen in Figure 5, the largest island of the four refers to the result of competition; success, winning, victory, money, loser and reward belong to this group. Only the goal, which refers to the result of competition, was independent from this group. However, this element, the goal, was attached to the concept of development. Therefore, this group is named “development is the goal”. Two conclusions can be drawn from this result: first of all, the concept of development is independent from the
largest group which refers to the result of competition; the second comment refers to the relationship between development and goal, which suggests that the goal of competition can be the development itself. However, development seems to be independent from success, victory, money, reward and winning or losing. Furthermore, the separation of the group that contains combat and fight is independent from all of the other groups. It means that the aggression-related part of the representation seems to be independent from the idea of the results of competition. Finally, the sport related category is independent from the other parts of the representation (see Figure 5).

In opposition with the Hungarian results, French students’ social representation on competition (see Figure 6) is more integrated. This representation has two main centers: the first is organized around “Contest”, while the second contains elements in connection with “Sport”. Concepts referring to the process of competition and personal qualities constitute integrated parts of both larger group, such as stimulating and challenge in the group of “Contest” and self-achievement, willpower and motivation in the group of “Sport”. Furthermore, these two main groups are linked through the concept of combat. In sum, in the case of French students, the process of competition gets more emphasis, the elements regarding personal qualities are integrated parts of the representation and the result of competition, as victory and winning, take place in the integrated representation under the umbrella of sports. In this case, we cannot see the dominance of the results of competition as in the case of Hungarians, but they also concentrate on the process of competition, either in the context of sports or in the field of contest.

In the following, Hungarian and French students’ social representation of fraud was analyzed in a similar manner. Figure 7 and Figure 8 present the results. In these figures, we can see that the Hungarian representation is again fragmented. There are three separated groups: “Cheating in sports and games”, “Frauds in the political and economic life”,

![Figure 5. Hungarians’ social representation on competition](image1)

![Figure 6. French’s social representation on competition](image2)
“Cheating in school”. Because of the above-mentioned reasons, Hungarians representation is more heterogeneous concerning its content. Cheating, in sports and games, political and economical frauds, and academic cheating, all reflect on diverse fields. In this case, we can see that political and economic issues constitute one non-separated part, which contains lying and punishment, as well. Furthermore, the second part, which contains fewer elements, includes sports, games, playing cards and games. It is thematically separated from both political and economical and education related-issues. Finally, we can see that there is a very strong relationship between exam and academic cheating, almost 80% of the students connected these terms. It was the strongest measured relationship between two possible elements in the whole study.

Regarding the structure of social representation of fraud of French students, two more integrated parts can be distinguished. The first, quite large part, containing nine terms, concerns economy and money-related issues; the second, smaller part, can be identified as the “Lack of honesty”. The French representation is more homogeneous, than the Hungarian one.

Consequently, according to French students’ representation of fraud, fraud does not include such diverse topics as sports, education, competition, politics etc., as in the case of Hungarians, but it is more focused on economic issues. Otherwise, according to Hungarians, fraud pervades several topics, while for French students it is present within a quite specific and homogenous field.

Finally, concentrating on the results of Hungarian students academic, cheating happens in performance situations (exams), which influence in tacit and in explicit ways the career of the next generation of businessmen. Furthermore, academic cheating belongs to the everyday experiences of students. These students can have a more or less abstract representation of corruption or frauds from newspapers and television, but they have a more...
vivid representation of academic cheating which they see more or less frequently in classrooms and lecture halls. That is why the fourth study will concentrate more on a specific dishonesty i.e. academic cheating, which is a “real” topic for students.

Conclusions

As we can see in the case of Hungarian and French economics students the previously expected results were confirmed. While Hungarians participants appear to be more result- or performance goal-oriented (e.g. success, aim, victory) in the field of competition, their French counterparts were concerned significantly more often with the process of competition and self-achievement. Furthermore, as we have seen in the study that revealed relationships on different elements, French students integrated in a better way the results of competition in their social representation, under the umbrella of sports, than their Hungarian counterparts did, their representation being fragmented. However, Hungarian students connected closely elements that refer to the results of competition, while this part of representation virtually lacked any elements that refer to the process of competition or the improvement of the self. The only exception was the relationship between the term of goal and development which constituted a separate group from other parts of the representation.

The confirmatory study on Hungarians’ social representations of fraud confirmed that academic dishonesty appeared more frequently in this group beyond politics and theft. In the case of the French results, illegality, embezzlement and money as mainly economic issues appeared significantly more frequently in comparison with their Hungarian peers. As we have seen in Figure 7, Hungarians representation is more fragmented and contains three larger groups, the first refers to sports and games, the second is around political and economical issues, while the third refers to the school context. What was quite interesting is that the strongest link was found between exams and academic cheating. From the perspective of French students, the representation of fraud includes two main groups: the first integrates economic and political dishonesty, while the other group is more domain-independent and refers to the lack of honesty in general (Figure 8).

Discussion

Taking into account the different historical, cultural and political background of French and Hungarian students the results confirm our expectations. In the case of the Hungarian respondents, probably as a result of fundamental changes from state socialist system to market
economy, the social representation of both competition and fraud were quite fragmented. As we have seen in the previous study regarding hapax and rarity indexes, Hungarians’ social representation was less coherent than the one of their French counterparts.

Furthermore, beyond the general structure of representations, its content conveys several differences, as well. Hungarians are more result oriented, that can be explained by the above-mentioned shortened time-perspective which was demonstrated by the GLOBE study (Bakacsi, 2002). During the period of systemic change in which previously habituated secured ways of living were taken for granted, severe changes occurred with the change of regime (see for example Ferge, 1995 or Van Hoorn, 2000). Furthermore, such changes also had similar impact on the concept of competition of businessmen (Fülöp & Orosz, 2006). The roots of this short time-perspective appear in the socialism, in which, for example, participants of the second economy could not build a long-term time perspective. However, they were concerned with the here and now possibilities in order to provide appropriate ways of living to their family (Gábor & Galasi, 1981). Moreover, as we took a look on the Inglehart map (2002), survival values are more prevalent in the case of Hungarians in comparison with French people. Whereas, among the French, post-materialist values are more important, like tolerance of diversity, interpersonal trust, etc. Such values can be seen as “deluxe” in Hungarian circumstances in which, for example, social-Darwinism appears frequently when they talk about competition (Fülöp, 1992, 1999). Short-time perspective and constrained financial possibilities can derive from the same source, which is the lack of resources, and in such circumstances it is harder to carry out longer-term plans in the future. These factors can have an impact on the heightened presence of result-focused elements in the Hungarian sample in comparison with French students.

Regarding the results for fraud, in the social representation of Hungarians, political issues are more prevalent than in the case of their French peers. If we take a look at the interviews of Hungarian businessmen, political issues regarding the non merit-based role of connections or corruption-related issues appear in a very similar pattern. It is in parallel with the results of Global Competitiveness Report (2006), Hellman and Kaufman’s “crony bias” and the interwoven relationship between political and economical life in the socialist regime (see for example Konrád & Szelényi, 1989; Hankiss, 1989). In the case of French students, we have seen that they chose more economy-related topics as belonging to the concept of fraud.

However, the most interesting difference appeared in the field of education, as the confirmatory study reproduced the results of the first associative study. Hungarians more frequently chose academic cheating as a concept that belongs to fraud than their French
counterparts. As in the case of corruption (Husted, 1999), financial situation as GNP/capita, or as we have seen in the meta-analysis on possible reasons of dishonesty, the perceived financial situation of households – in an indirect manner - greatly influences self reported academic cheating. The results of this study reinforced our intuition about the relevance of academic dishonesty that can possibly be a good topic in which behavioral differences of social representations can be measured. In the following study, we will be concerned with cultural differences regarding this narrowed domain; namely our aim will be the confirmation of differences between Hungarian and French students regarding academic cheating in terms of attitudes, norms, self-reported behaviors and self-reported feelings that follow cheating behavior.
Academic dishonesty in higher education: a comparative study of French and Hungarian economics students

Introduction

This study examines Hungarian and French students’ attitudes and self-reported behavior in the field of academic cheating. This part of the research is partly based on previous studies on Hungarian businessmen’s and the above described associative studies. Studies with businessmen showed that dishonesty is attached to the concept of competition. In the following, the question arose in the case of the next generation of businessmen e.g. economics and business school students: whether their concept of competition is pervaded by immorality at the same extent as it was measured among businessmen. As we have seen in previous studies it is not the case. However, during the comparison between French and Hungarian students there were significant differences regarding the occurrence of elements of social representations that refer to the results of competition and academic dishonesty. In both cases, Hungarian students gave more responses, and in the confirmatory study, these results were also confirmed. In this study, the main goal is the comparison between Hungarian and French students’ attitudes, norms, perception of punishments, self-reported feelings in case of cheating and self-reported behavior.

As we have seen in previous competition-related studies carried out by Márta Fülöp both businessmen (Fülöp & Orosz, 2006, Orosz, 2007), students (Fülöp, 1999; 2002a, 2002b) and teachers (Fülöp, 2001b; Fülöp et al. 2004; Fülöp, 2008b; Fülöp, 2008c) there is a strong emphasize on the immoral aspect of competition in Hungarian samples. In order to show the importance of this issue, we have to refer to the links between academic dishonesty and malpractices in the business sphere (Graves, 2008; Harding, 2006; Lawson, 2004; Nonis & Swift, 2001; Sims, 1993). Regarding the largest measured sample, the correlation between academic dishonesty and business immorality was $r = 0.6$ (Nonis & Swift, 2001).

As it was presented in the theoretical part on academic cheating, the occurrence of such dishonesty depends on individual, situational, interpersonal and cultural factors. In the following, considering these factors, hypotheses will be drawn regarding Hungarian and French samples.
Hypotheses on the basis of individual differences

On the basis of variables that refer to ability indicators, previous results showed that academic aptitudes and cheating is in a negative relationship (Leming, 1980; Newstead, 1996; Whitley, 1998). On the basis of these studies, we expect that a better grade point average will be in a negative relationship with self-reported academic dishonesty.

H1: Independently from nationality, negative relationship will be measured between grade point average of the previous semester and (1) acceptance of cheating behavior, and (2) self-reported academic dishonesty.

Regarding negative feelings about dishonesty, such as guilt, Whitley (1998), in his meta-analysis, did not find relationship with academic dishonesty. However, Malinowski and Smith (1985) found negative correlation between cheating attempts and anticipatory guilt. Others continued researches in this field (DePalma et al., 1995); however, they examined not only anticipatory guilt, but also posttransgressional guilt (PTG). The results of this study show that PTG is in a positive relationship with academic dishonesty. Due to the consequences of the authors that refers to the principle of “guilt doesn’t stop you from doing anything, it only makes you feel bad when you do it”, we expect that negative feelings, such as guilt or guilty consciousness after exam when they cheated, will be in a positive relationship with self-consciousness.

H2: Independently from culture, those who experience negative feelings as guilt after successful cheating will evaluate as more acceptable academic dishonesty.

Previous researches showed that time-consuming extracurricular activities, such as fraternity and sorority membership (Anderman & Murdock, 2007; McCabe & Trevino, 1997; Whitley, 1998) or partying (Zimny, Robertson & Bartoszek, 2008), are in a positive relationship with academic cheating. In our study, Hungarian and French students were asked about another more or less prevalent extracurricular activity, namely if they work/have a job parallel to their studies. On the basis of our expectations, extracurricular work is in a positive relationship with academic cheating.
H3: Independently from nationality, extracurricular work will be in a positive relationship with (1) acceptance of cheating and (2) self-reported academic dishonesty.

According to previous studies and to meta-analyses (Carpenter, Harding, Finelli & Montgomery, 2006; Jordan, 2001; Sherrill, Salisbury, Horowitz & Friedman, 1971; Whitley, 1998), positive attitudes towards academic dishonesty are in a positive relationship with self-reported academic dishonesty; therefore, in the present study, we expect that positive attitudes will be in a positive relationship with academic dishonesty.

H4: Independently from nationality, those who were dishonest during the last semester, evaluate as more acceptable academic cheating, than students who did not previously cheat.

According to Miller, Tamera, Murdock, Anderman, and Poindexter (2007) gender of students is not in an unambiguous relationship with academic cheating. While in questionnaire studies boys reported more cheating, in observational studies there was no significant gender difference. Furthermore, McCabe and Bowers (1996) did not find such differences in 1993. Therefore, on the basis of these results, we do not expect to find gender differences regarding self-reported academic cheating.

H5: Independently from the nationality, there will be no gender differences regarding (1) self-reported cheating rate, nor (2) with the degree of acceptance of cheating.

Hypotheses on the basis of cultural differences between Hungary and France

As we distinguished previously, we can interpret cultural differences at least at two levels, the first one refers to more general value systems, while the second is in relationship with institutional differences as the manifestations of the former one. On the basis of these two main pathways, we will analyze French and Hungarian cultural differences in relationship with students’ cheating behavior.

As we previously mentioned in the chapter on the most important cultural determinants of academic dishonesty, on the basis of the WVS data, there were two variables that seem to be crucial regarding the prevalence of self-reported academic cheating: satisfaction with financial situation of the household indirectly and greater emphasis on the value of hard work directly. On the basis of the WVS database concerning satisfaction with
the household’s financial situation (the mean is 4.9 in Hungary, WVS, 1998 and 6.1 in France, WVS, 2006) and the greater emphasis on the value of hard work in child care (in Hungary 70.8% mentioned, in France 50.4% mentioned, WVS, 1999), self-reported cheating rate will be higher in Hungary than in France.

Among other macro-societal variables, it is crucial to mention the economic backlog of Hungary in comparison with the EU 14 (except Luxembourg). According to Wagner-Hlusovka (2005) (Cited by Kornai, 2007) Hungary needs 46 years in order to get to the level of the EU 14. The reasons are in relationship with the historical past of Hungary. Since the sixteenth century, until the change of regime, Hungary was under the occupation or control of foreign authorities. In France, except with Germany and the Vichy system, this was not the case. It has several consequences regarding dishonesty towards authorities. Furthermore, focusing on previous researches that aimed at finding value-related bases of academic dishonesty, we can take into account the following dimensions:

1. On the basis of the Individualism scores of the GLOBE study (House et al. 2004), which also seemed to be an important factor on the basis of the results of Bernardi et al. (2004) on Japanese and American students, and considering these results, Hungarians (their institutional individualism-collectivism ranking was 60 in the GLOBE study on the basis of House et al., 2004) are expected to cheat more than their French peers (whom institutional individualism-collectivism ranking was 45 in the GLOBE study on the basis of House et al., 2004).

2. On the basis of the Power distance scores of the GLOBE study (House et al. 2004) that is the inverse of Rawwas et al.’s (2004) opportunism dimension, which is in positive relationship with academic dishonesty, we can expect that Hungarians, who are in the twelfth rank on power distance, will report more academic dishonesty than their French peers who are in the twenty-eighth regarding the GLOBE study’s power distance dimension.

3. On the basis of the Uncertainty avoidance dimension of the GLOBE study (House et al. 2004), Hungarian businessmen show lower uncertainty avoidance than their French peers who have higher scores on uncertainty avoidance. On the basis of the results of McCabe et al. (2008) and Salter et al. (2001), uncertainty avoidance is in a negative relationship with academic dishonesty; therefore, in this case, we can expect higher self-reported cheating behavior and more positive attitudes towards cheating among Hungarians than their French peers.
4. Similarly to Grimes et al., (2004); Hrabak et al., (2004), Magnus et al. (2002) and to Poltorak (1995), we suppose that previous conflict between unofficial and official goals, inefficiency of control mechanisms and opposition with authorities as teachers can lead to more positive attitudes towards cheating behavior and higher self-reported cheating rates among students.

5. As we have seen above, there are deeply rooted and severe problems with anomie in Hungary (for example Andorka, 1994), especially regarding rule keeping behavior, TÁRKI, MHP, on the basis of different years Andorka, 1996; Spéder, Paksi, Elekes, 1998; TÁRKI Household monitor, 1998; TÁRKI omnibus 2001/7, cited by Tóth, 2005). Therefore, we expect that on the basis of these data, Hungarians will cheat more than their French counterparts.

6. On the basis of the meta-analysis of academic dishonesty, there is a strong negative correlation between Corruption Perception Index and the prevalence of self-reported academic dishonesty. This relationship means that in Hungary (the score is 5.1 with ranking of 47 in 2008) corruption is perceived to be present in a more pervasive manner than in France (the score is 6.9 with ranking of 23 in 2008) that is predicted to relate positively to the prevalence of academic dishonesty.

Regarding the infiltration of cultural values into institutional principles and practices, we can suppose several factors that can be taken into account in the comparison between Hungarian and French students’ academic cheating. On the basis of previous researches (Poltorak, 1995; Magnus et al. 2002; Lupton et al., 2000) in post-socialist countries, we can expect that Hungarians will cheat more than their French peers:

1. In post-socialist countries, the previously absolutely lacking competition between students in educational system can lead to higher cheating rates especially regarding collaborative forms of cheating (Poltorak, 1995; Magnus et al. 2002).

2. According to Magnus et al. (2002) due to the societal legacy in Russia there is strong dislike towards student informers. Taking into account, that in Hungary, similar patterns were present regarding the role of informers (see for example Hankiss, 1989), we can expect parallel educational consequences among Hungarian students. Considering McCabe et al.’s (1997) results, report of peers is one of the most efficient ways in reducing the prevalence of academic dishonesty. However, in post-socialist countries, such means of cheating-reduction are less available than for example in the USA. We suppose that there is no such opposition with informers in the case of French students. However, in their case, similar opposition is expected than among
students from Netherland in Magnus et al.’s (2002) study, who were less opposed to informers than students from Russia.

3. As Hrabak et al. (2004) emphasize the lack of honor codes in Croatian medical universities which influences the prevalence of cheating, in Hungary, Honor Codes are missing as well as specific regulations in most of the universities. As we mentioned above, it is not true in the case of the measured French students for which a well-detailed honor code provides clear guideline for honest, university-related behavior.

On the basis of the above-mentioned value- and institution based differences, the following culture-related hypotheses were generated:

**H6:** Hungarian students have more positive attitudes towards academic cheating than their French peers – they evaluate situations of cheating on vignettes significantly as being more acceptable than French students.

**H7:** Self reported academic dishonesty will be significantly higher among Hungarians than among French students.

**H8:** Hungarian students experience less negative feelings – independently from the difficulty of question – after successful cheating when they were not caught in comparison with French students.

**Hypotheses on the basis of situational variables in the French and Hungarian cultural contexts**

McCabe and his colleagues examined in several researches (McCabe & Trevino, 1993; McCabe, Butterfield & Trevino, 2003; McCabe, Trevino, & Butterfield, 2001) the impact of honor codes on academic dishonesty. On the basis of their results, higher educational institutions that have honor codes regulating academic cheating, can reduce it in a more efficient way. In the present study, we measured students from a Hungarian institution and a French institution. In the Hungarian university, I have not found any honor code that declares precisely what constitutes cheating; however, in the French institution, there was a quite precise honor code. Consequently, on the basis of the literature review, we expect that, beyond more general cultural differences, the lack of honor codes in the Hungarian institution
will contribute to a more positive attitudes towards academic dishonesty, heightened level of self-reported academic dishonesty, perception of less severe or at least more diverse punishments and more positive feelings after successful cheating in an examination. Because there was only one Hungarian and only one French measured institution, we can’t distinguish cultural and institutional differences in a precise way; therefore, we can’t have clear hypotheses about the impact of honor codes in the Hungarian and French cultural contexts regarding the sample of economics and business students.

Another very important variable in the situational level which refers to the norms towards academic dishonesty in the examined-group. Several studies and meta-analysis proved the relevance of the importance of norms (Bunn, Caudill, & Gropper, 1992; Carrell, 2008; Jordan, 2001; McCabe & Trevino, 1993; McCabe & Trevino, 1997; Sherrill, Salisbury, Horowitz & Friedman, 1971; Smith, Ryan & Diggins, 1972; Whitley, 1998). In the present case, norms were measured in such a way that the perception of students see the proportion of others’ who cheat during examinations. Therefore, we can formulate the following hypotheses:

H9: Hungarian economics students are expected to estimate a higher number of their classmates who cheat in a general examination, than their French peers.

The following measured variables concern expected punishments. The results suggest that severe punishments can be useful deterents of academic dishonesty (Tittle & Rowe, 1977). However, regarding research on American (Bunn, Caudill, & Gropper, 1992; Cohran, Chamlin, Wood & Sellers, 1999), Japanese (Diekhoff, LaBeff, Shinohara, & Yasukawa, 1999), UK (Salter, Guffey, & McMillan, 2001) and Lebanese (McCabe, Feghali, & Abdallah, 2008) students it might be not the most optimal tool. Furthermore, McCabe et al. (McCabe and Trevino, 1993, 1997; McCabe, Feghali, & Abdallah, 2008) found significant positive relationship between severity of punishments and academic cheating on American and Lebanese samples. On the basis of these contradicting results, we can conclude that severity of punishments in general has a slight negative impact on attitudes towards academic cheating and self-reported academic dishonesty. Furthermore, on the basis of Kirchler’s slippery slope model (Kirchler, 2007), we expect that punishments will have a stronger impact on Hungarians’ attitudes toward cheating and their self-reported academic dishonesty than among French peers’ related attitudes and behavior.
H10: The expected punishment will influence in a higher level Hungarian students’ attitude of cheating in comparison with their French peers.

**Participants**

In this study 98 Hungarian economics student (36 boys and 62 girls) and 131 French business school students (79 boys and 62 girls) participated. The average age of the Hungarians was 22.2 years, while the average age was 21.67 years of their French peers. Regarding grade level among French students 76 was BA students and 55 MA student, in the Hungarian sample there were 62 BA and 36 MA students.

**Methods**

In the questionnaire, both open-ended questions and closed questions were used. Firstly, demographical information was collected, such as gender, age. Later, school and ability related general questions were asked, as grade level, grade point average of the last semester, the number of failed exams in the last semester, acquired scholarships, the number of hours that they spend with extracurricular work, etc.. Then, on the basis of the questionnaire of Jensen et al. (2002), the questionnaire contained fourteen vignettes that had to be evaluated on an eight-point Likert-type scale in the dimension of acceptable-condemnable. In the situations, the respondent evaluated the behavior of one of his imagined classmate who commits academic dishonesty as a result of different external pressures. The different sources and pressures are described in details in the Table 21.
I. The goal is the acquisition of personal advantage:
   1. The student has to pass an exam by all means, therefore he/she cheats
   2. A not well-prepared who would like to obtain an Erasmus scholarship, therefore he/she cheats
   3. This is the last chance of passing an exam, therefore he/she cheats

II. The influence of classmates, conformity:
   4. The others cheat around him/her, therefore he/she starts to cheat, as well.

III. Cheating as a response to the perceived injustice:
   5. A well-prepared student evaluates unfairly hard the questions of the test, therefore he cheats
   6. The teacher is down on the student – the students’ cheating appears as a revenge

IV. Competitive personality:
   7. Competitive personality, according to him the end justifies the means, therefore he cheats in order to have to best grades of the class. (The imagined character is similar to Ryckman et al.’s (1990) hypercompetitive personality.)

V. Temporary loss of memory:
   8. The student temporally forgets the some important things, he/she needs some keywords, and therefore he/she seek those in dishonest manner.

VI. Pressures of parents in order to achieve well:
   9. The influence of parents is very strong; the student does not want to disappoint them, he/she chooses cheating in order to meet the requirements.

VII. Previous experiences:
   10. The student is an expert of cheating, he develops a new and successful technique of cheating, he/she is proud of his “achievement”.

VIII. Challenge:
   11. The student perceives cheating as a challenge; it is the reason of cheating.

IX. The risk of being caught is low:
   12. The teacher does not care about cheaters, he reads newspaper during exam and therefore the student cheats.

X. Financial difficulties and time pressure:
   13. The student has to work in order to pay his/her studies, he/she does not have time to study and therefore he cheats.

XI. Emotional crisis and lack of time:
   14. The student is just after a falling out, therefore he/she did not have time to prepare for the exam.

Table 21. Summary of different situations used in the questionnaire on the basis of Jensen et al. (2002), that were supposed to measure the acceptability of cheating under different pressures. The more general pressures and needs were written in bolds, and the more specific situations are below those.

In the following questions, respondents were asked to respond to perceived norms of cheating. They had to estimate the number of students among 10 who would cheat during an average exam. Furthermore, they responded to two closed questions concerning self-reported academic dishonesty in the last semester. Here, we defined dishonesty on the basis of McCabe et al. (2001), as serious exam cheating including copying from another student during exam, providing answers to another person during exam, use of cheating sheets and plagiarism. Firstly, the respondents were asked about how many times they cheated regarding 10 average exams. The second question was related to their cheating behavior during the last semester. Finally,
concerning self-reported cheating behavior, students were asked in the form of an open-ended question about the form(s) of cheating that they used during the last period of exams. After this part of the questionnaire, students in an open-ended question were asked about the feelings that they experienced after a successful cheating in the case of a (1) harder, (2) an easier exam. Finally, in another open-ended question, respondents were asked about the expected punishments if they were caught in the case of cheating during an exam. The responses obtained thanks to these open-ended questions were content analyzed.

The pretested questionnaire was translated from Hungarian to French and it was back-translated to Hungarian. Finally the inconsistencies were negotiated with the bilingual translators and French and Hungarian students. At the beginning of the questionnaire, students were assured, in an oral and written way, about the anonymity of their responses. Data gathering was carried out in 2008 May and June; students filled in the questionnaire individually at the campus, in the library and in the backyard of the university. The questionnaires were not filled in at the beginning of lectures, because of students’ possible fear of the teacher getting somehow to know the response. The time of filling in the questionnaire was on the average of approximately 30 minutes.

**Results**

**Culture-independent results**

In order to have a single variable that covers attitudes toward cheating, a principal component analysis was carried out regarding the scale points of vignettes that measured acceptance of cheating. According to the results, one component was revealed that represents well variables that derived from the 14 vignette evaluation: this principal component explains the 54% of the original variance and the weakest correlation was 0.563 between the original variables and the principal component (see Table 22). These results suggest that the different vignettes, similarly to Jensen et al. (2002), measure the same construct i.e. attitudes toward academic exam cheating. Therefore, for further calculations, the average of the attitude scores is used.
Table 22. Correlations between principal component and variables that represent the situations.

<table>
<thead>
<tr>
<th>Vignette</th>
<th>Correlation</th>
<th>Vignette</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Important exam</td>
<td>0.767</td>
<td>8. Temporary loss of memory</td>
<td>0.810</td>
</tr>
<tr>
<td>2. Erasmus</td>
<td>0.773</td>
<td>9. Parental pressure</td>
<td>0.780</td>
</tr>
<tr>
<td>3. Last chance</td>
<td>0.671</td>
<td>10. Expert of cheating</td>
<td>0.643</td>
</tr>
<tr>
<td>4. Conformity</td>
<td>0.618</td>
<td>11. Cheating as challenge</td>
<td>0.682</td>
</tr>
<tr>
<td>5. Unfairly hard exam questions</td>
<td>0.812</td>
<td>12. The teacher does not care</td>
<td>0.782</td>
</tr>
<tr>
<td>6. Cheating as a revenge</td>
<td>0.709</td>
<td>13. Lot of work</td>
<td>0.821</td>
</tr>
<tr>
<td>7. Competitive student</td>
<td>0.563</td>
<td>14. Emotional crisis</td>
<td>0.762</td>
</tr>
</tbody>
</table>

According to the first hypothesis (H1) we expect a negative relationship between on one hand (1) acceptance of cheating behavior, on the other hand (2) self reported academic dishonesty and grade point average. Neither in the case of Hungarians ($r = -0.137$, $p = 0.192$), nor among French students ($r = -0.022$, $p = 0.847$) there was a significant relationship in attitudes regarding grade point average. Furthermore, contrary to the expectations students who cheated at least once during last semester, and who did not confess cheating, both in the French ($t = 0.759$, $p = 0.45$) and Hungarian sample ($t = 0.947$, $p = 0.35$) did not differ from each other concerning grade point average.

On the basis of the second hypothesis (H2), experienced negative feelings after successful cheating are in a positive relationship with acceptance of cheating both in the case of an easily evaluated exam and in a hard exam. The results show that this hypothesis (based on DePalma et al., 1995) is not confirmed because more positive experienced feelings are in significant relationship with the acceptance of academic cheating, both regarding easy exams ($r = 0.203$; $p = 0.025$), an hard exams ($r = 0.288$; $p < 0.001$). This result therefore confirmed the opposite of our hypothesis which is in accordance with Malinowski and Smith’s (1985) results: negative feelings, such as posttransgressional guilt and other negative feelings, are in negative relationship with acceptance of academic dishonesty.

The results do not confirm the third hypothesis (H3) because the number of hours that were spent with extracurricular work are not in relationship neither with the acceptance of cheating ($r = -0.04$, $p < 0.747$), nor with self-reported academic dishonesty ($r = 0.173$, $p < 0.165$).

According to the fourth (H4) hypothesis the acceptance of cheating is in positive relationship with self-reported cheating. Regarding the whole sample, correlation between the mean of acceptance from the vignettes and the variable regarding the number of exams of ten when the respondents cheated was significant ($r = 0.505$; $p < 0.001$). Therefore, there is a

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significant positive relationship between attitudes towards cheating and self-reported academic dishonesty; consequently this 4th hypothesis is confirmed.

According to the fifth (H5) hypothesis, there are no gender differences among both Hungarians and French students. In the case of the whole sample, there was no gender difference regarding acceptance of academic cheating (t = -1.059; p = 0.291). Furthermore, it was true concerning the Hungarian (t = 0.349; p = 0.728) as well as the French (t = -1.153; p = 0.251) samples. Concerning the self-confessed cheating rate, there was no difference in the whole sample ($\chi^2 = 0.0016; p = 0.524$), neither in the Hungarian subsample ($\chi^2 = 0.892; p = 0.562$). However, among French students, more boys confessed more cheating than girls ($\chi^2 = 6.049; p < 0.011$). In sum, the hypothesis is confirmed regarding attitudes, but it is supported only partly confirmed regarding self-reported cheating behavior (see Table 23 and 24).

<table>
<thead>
<tr>
<th>Gender differences</th>
<th>F</th>
<th>T</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acceptance of cheating in the whole sample</td>
<td>0.029</td>
<td>-1.059</td>
<td>0.291</td>
</tr>
<tr>
<td>Acceptance of cheating French sample</td>
<td>0.07</td>
<td>1.153</td>
<td>0.251</td>
</tr>
<tr>
<td>Acceptance of cheating Hungarian sample</td>
<td>3.064</td>
<td>0.349</td>
<td>0.728</td>
</tr>
</tbody>
</table>

*Table 23. Acceptance of cheating and gender differences (comparison between the averages)*

<table>
<thead>
<tr>
<th></th>
<th>$\chi^2$</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-reported cheating whole sample</td>
<td>0.0016</td>
<td>0.524</td>
</tr>
<tr>
<td>Self-reported cheating French sample (boys confessed more)</td>
<td>6.049</td>
<td>0.011</td>
</tr>
<tr>
<td>Self-reported cheating Hungarian sample</td>
<td>0.892</td>
<td>0.562</td>
</tr>
</tbody>
</table>

*Table 24. Self-reported cheating and gender differences*

**Results of culture based hypotheses**

In the following step, a comparison was carried out between Hungarian and French students’ attitudes toward cheating. The results show that the sixth (H6) hypothesis was confirmed (see Table 23), namely attitudes toward cheating were significantly different in the Hungarian and French samples ($t = -7.705; p < 0.001$). Furthermore, the Hungarian subsample perceives more acceptable cheating in all of the measured 14 situations in a p < 0.01 level (see Figure 9).
On the basis of the seventh (H7) hypothesis, Hungarian students self-reported more cheating during last semester than their French peers was confirmed ($\chi^2 = 52.19; p < 0.001$). 83% of Hungarian students cheated at least once during last semester, while it was true only in the case of 34% of French students. Furthermore, according to the other question that referred to self-reports, Hungarian students cheat during every fourth exams, while French students reported cheating at every sixth exams. The difference is significant ($t = -3; p < 0.002$); it means that regarding both measurements Hungarians confessed higher cheating rates (see Table 25).

According to the eighth (H8) hypothesis, Hungarian respondents were expected to experience significantly less negative feeling after they cheated successfully during an easy and a hard exam. In order to prove this hypothesis, qualitative responses of the related questions were categorized into positive, neutral and negative categories. The results show that, both in cases of easy ($t = -2.203, p < 0.031$) and hard exams ($t = -2.212, p < 0.036$), Hungarians experienced less negative feelings than their French peers (see Table 25).
Table 25. The summary of the confirmation of first three hypotheses

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Hungarian students</th>
<th>French students</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Acceptance of cheating: the average of standardized variable</td>
<td>0.508</td>
<td>-0.432</td>
<td>t = -7.705; p &lt; 0.001</td>
</tr>
<tr>
<td>H2a: Cheated at least once during last year</td>
<td>83%</td>
<td>34%</td>
<td>X² &lt; 52.19; p &lt; 0.001</td>
</tr>
<tr>
<td>H2b: The number of occasions when one cheats out of ten exams</td>
<td>2.52</td>
<td>1.68</td>
<td>t = -3; p &lt; 0.0013</td>
</tr>
<tr>
<td>H3: How many students cheat out of ten during an average exam</td>
<td>6.4</td>
<td>4.2</td>
<td>t = -7.47; p &lt; 0.001</td>
</tr>
<tr>
<td>H4a: The proportion of students who experience negative feelings after successful cheating in case of a relatively easy exam</td>
<td>19.6%</td>
<td>39.4%</td>
<td>t = -2.203; p &lt; 0.031</td>
</tr>
<tr>
<td>H4b: The proportion of students who experience negative feelings after successful cheating in case of a relatively hard exam</td>
<td>14.3%</td>
<td>35.7%</td>
<td>t = -2.212; p &lt; 0.036</td>
</tr>
<tr>
<td>H5: The proportion of students who expects more serious punishment, than the worst possible grade</td>
<td>9%</td>
<td>71%</td>
<td>X² &lt; 75.29; p &lt; 0.001</td>
</tr>
</tbody>
</table>

On the basis of the ninth (H9) hypothesis, we expected that Hungarians perceive a higher number of other students out of ten who cheat during an average exam, than their French peers. Such differences were supposed to prove that the norm of cheating is more salient among the Hungarian respondents, than among their French peers. The results confirmed our hypothesis: according to Hungarians more than six students (6.4) out of ten cheat during an average exam; however, this number is significantly lower (4.2) among French business school students (t = -7.47, p < 0.001).

In order to prove the tenth (H10) hypothesis, the qualitative responses regarding dishonesty were categorized into two main groups: the first refers to the worst possible grade that a student can obtain during an exam and slighter punishments (the teacher cautions the student without tangible punishment or he censures a student); in the second group such responses were categorized which refer to more serious punishments than the worst grade (exclusion from the school, the student has to restart the given academic year, etc.). On the basis of this categorization, only 9% of the Hungarian students reported more serious punishments than the worst grade (a bad grade); however, this proportion was of 71% among French students. The difference is significant (χ² = 75.29; p < 0.001).

Finally, with the use of a Multivariate Analysis of Variance, a hierarchical model was set up, that was intended to measure the acceptance of cheating behavior. Gender, grade level, extracurricular work, grade point average, experienced emotions after successful cheating did not influence significantly the acceptance of cheating. However, the severity of punishments (F = 34.429, p < 0.001) and nationality (F = 19.839, p < 0.001) have a significant impact on
the acceptance of cheating. Furthermore, if severity of punishment, as an explanatory variable, was excluded, the nationality had a significant impact; however, its inverse was not true. This result suggests that nationality conveys the strongest explanatory power and that excluding other variables can explain a momentous part of the variance. The above-mentioned model including severity of punishment and nationality explains almost one fourth of the variance ($R^2 = 0.237$).

**The impact of demographical and situational variables on self-reported cheating and acceptance of cheating regarding French and Hungarian samples separately**

In order examine the impact of different variables on (1) self-reported academic dishonesty and (2) attitudes toward cheating behavior, firstly correlations were measured among demographical and situational variables and self-reported cheating, later attitudes both in the case of Hungarian and French students respectively. Then, using a linear regression model, the impact of the significantly related variables were measured in which self-reported cheating and attitudes toward cheating were the dependent variables regarding French and Hungarian samples respectively. In order to carry out the analysis concerning self-reported academic, cheating variables that measure how many times they cheat out of ten exams were used instead of self-reported cheating during the last semester. First, French results will be presented, later the Hungarian results will be examined in the same manner.

**French sample**

Considering French data, only negative emotions, after a successful cheating attempt, were correlated negatively with attitudes toward academic dishonesty. In the case of easy exams, the relationship was the mildest ($r = 0.299, p < 0.027$); it was stronger regarding hard exams ($r = 0.464, p < 0.001$). Due to this result, these two variables were aggregated in a common variable that was called as negative feelings after cheating. This aggregated variable showed the strongest relationship with acceptance of cheating ($r = 0.473; p < 0.001$). This result implies that the more negative feeling a French student reports after a successful attempt of exam cheating, the lower acceptance of cheating he/she has. There was no other significant relationship between acceptance of cheating and age ($r = -0.046; p < 0.639$), grade level ($r = -0.016; p < 0.948$), grade point average ($r = -0.022, p < 0.847$), the number of failed exams ($r = -0.104; p < 0.393$), and the hours that students spend with extracurricular work ($r = 0.082; p < 0.678$).
In the French sample, positive correlations were measured between self-reported dishonesty and age ($r = 0.242, p < 0.018$), grade level ($r = 0.218, p < 0.017$), the hours that the student spend with extracurricular work ($r = 0.382, p < 0.034$), positive feelings that a student experience after cheating during a hard exam ($r = 0.257, p < 0.036$), positive feelings that a student experience in general after cheating ($r = 0.294, p < 0.029$), and finally more positive attitudes toward cheating ($r = 0.469, p < 0.001$). However, there was no relationship in the case of grade point average ($r = -0.018, p < 0.872$), the number of failed exams ($r = -0.001, p < 0.991$), nor with negative feelings after a successful cheating during an easy exam ($r = -0.164, p < 0.204$).

First, a linear regression analysis was carried out with stepwise method in which attitudes toward academic dishonesty was the dependent variable; beyond the aggregated negative feeling variables two other dummy dichotomous variables were put in the model as independent variables: gender and perceived severity of punishments. The model explained 29.1% of the variance ($R^2 = 0.291$, $F(1, 43) = 17,262, p < 0.001$), and the only variable that have significant impact on attitudes towards cheating was the aggregated positive feeling after exam cheating ($\beta = 0.54, t= 4.155, p < 0.001$).

In the second step, linear regression analysis with enter method, was carried out in which the dependent variable was self-reported cheating and the model contained variables that refer to grade level, the hours that the student spend with extracurricular work, feelings that a student experience after cheating during a hard exam, feelings that a student experience in general after cheating, and attitudes toward cheating and gender and perceived severity of punishments as dummy variables. In the model, there none of the independent variables had a significant impact on the self-reported cheating ($R^2 = 0.259$, $F(5, 13) = 0.559, p = 0.73$). The results regarding French students are summarized in Figure 10.

![Figure 10](image.png)

*Figure 10. In the French sample positive feelings after cheating has impact on acceptance of cheating*
Hungarian sample

In case of the Hungarian sample, attitudes toward cheating were not significantly in relationship with the examined variables. Therefore, significant correlations were not measured between attitudes toward cheating and feelings after a successful cheating, both in the case of an easy (r = 0.0015, p = 0.971) and hard exams (r = 0.062, p = 0.971), age (r = -0.021, p = 0.835), grade point average (r = -0.167, p = 0.113), the number of failed exams (r = -0.051, p = 0.629), and the number of hours that the student spend with extracurricular work (r = -0.226, p = 0.191).

In the regression model, therefore, only gender variables and perceived severity of punishment were put as dummy variables. None of these variable has a significant impact on attitudes towards academic dishonesty (R^2 = 0.0014, p = 0.854).

In the second step, correlations were measured between the frequency of self-reported academic dishonesty and the above-mentioned demographical and situational variables; furthermore, correlation with attitudes towards cheating was also measured. The results show that only attitudes towards dishonesty were in positive relationship with the frequency of self-reported cheating (r = 0.452, p < 0.001). The correlation between feelings, after a successful cheating, during an easy (r = -0.076, p = 0.582) or hard exam (r = 0.109, p = 0.4), age (r = -0.123, p = 0.232), grade point average (r = -0.075, p = 0.478), the number of failed exams (r = -0.086, p = 0.416), and the number of hours that the student spend with extracurricular work (r = -0.071, p = 0.684) were not significant with the confessed frequency of cheating.

In the following step, attitudes toward cheating, gender and perceived severity of punishment were put in the regression model as independent variables, and their impact was measured on self-reported frequency of academic dishonesty. The results show that only attitudes towards cheating had a significant impact on the frequency of self-reported cheating (R^2 = 0.191, p < 0.001, β = 0.436). The results suggest that, in the Hungarian sample, attitudes toward cheating can explain almost 20 percent of the variance of self-reported cheating behavior (see Figure 11).

![Figure 11](image_url)

_Figure 11._ In the Hungarian sample acceptance of cheating has impact on the self-reported frequency of cheating.
Conclusion

The results show that culture has a great impact on the acceptance of cheating. The impact of the manifold and different historical, economic, societal and institutional backgrounds also appear in the field of academic dishonesty. Hungarian students see cheating more acceptable; they confess higher cheating rate; they think that more students cheat during an average exam; they experience less negative emotions after successful cheating; and they see their punishments as less severe than their French peers.

Beyond cultural differences, our results confirmed mostly the literature in the field of academic dishonesty, such as gender differences (Miller, Tamera, Murdock, Anderman, & Poindexter, 2007; McCabe & Bowers, 1996), and the relationship between attitudes and self-reported academic dishonesty (Carpenter, Harding, Finelli & Montgomery, 2006; Jordan, 2001; Sherrill, Salisbury, Horowitz & Friedman, 1971; Whitley, 1998). However, regarding grade point average (Leming, 1980; Newstead, 1996; Whitley, 1998) and extracurricular activities (for example Whitley, 1998), we obtained dissimilar results from the classical literature.

Furthermore, on the basis of French sample, we have seen that acceptance of cheating is predicted by positive feelings after successful cheating in an exam. But none of the measured variables predicted the frequency of self-confessed cheating behavior. Among Hungarians, there was no significant predictor of attitudes toward cheating, but these attitudes predicted the frequency of self-reported cheating.

Taking into consideration the relatively strong link between self-reported academic dishonesty and workplace malpractices (Graves, 2008; Harding, 2006; Lawson, 2004; Nonis & Swift, 2001; Sims, 1993), the 83% of Hungarian business students who confessed cheating, at least once during last semester, is very worrying. It is worrying mainly because the question referred to cheating related to the last semester and not the whole university career, which is generally asked in American and other cross-cultural studies. Considering this fact 83% is very high.

Discussion

This research proved previous expectations based on associative studies. Even if, as it was seen in the first associative study, we did not find links between immorality and competition, dishonesty appeared in the everyday practices of Hungarian students as academic dishonesty,
whereas it was not the case among French students. On the basis of the recent results in this dimension, the results of associative studies were confirmed. Furthermore, we have seen in the interview analysis, moral dimensions and especially immorality pervades Hungarian businessmen’s interviews on competition. Moreover, competition in the business sphere conveys several elements related to aggression and cruelty; and the perceived Social-Darwinist characteristics are salient according to a significant part of the respondents. Consequently, economics students who accept academic cheating behavior, who have previous personal experiences regarding cheating, who see the majority of their peers as individuals who cheat during their assignments, can be supposed to be well equipped and more vulnerable to accept the less honest strategies in the future workplace. Taking into account the results of the interviews, the associative studies and the present study, very probably Hungarian students do not experience such dog-eat-dog competition at their university (for example due to the lack of bell curve), which exists in several sectors of the business life. Competition for scarce resources (as positions, good jobs or good businesses), for example in a price competition or sum-zero competition for larger market share, can supposedly easily wake up the habits of dishonesty that they learnt during their studies. Moreover, the anomic societal background, the non merit-based competitive strategies, and dishonest strategies of competitors can reinforce them in the use of dishonest practices.

There are several methodological concerns with the generalization of the result of this study. The number of respondents from the Hungarian and French part cannot be evaluated high. Furthermore, it was not a multi-campus examination that could declare in a more efficient way the role of honor codes and the effects of the severity of punishments in the French and Hungarian cultural contexts separately. However, instead of the immediate extension of this research, our attention is turned toward the problems connected with self-reports and observable cheating behavior in different cultural contexts.

The main reason of this step refers to the previously described cultural dishonesty bias. This hypothesis claims that cultural differences between Hungarian and French students in behavioral level are expected to be smaller than in the case of the above-demonstrated self-reports.
French and Hungarian students’ cheating behavior in a competitive situation

Introduction

In this study, the main goal was to create such experimental laboratory circumstances in which social representations will not be suppressed due to strict experimental control. Furthermore, taking into consideration the effect of situational variables that can impact the appearance of social representations at a behavioral level, in this study, we aimed to shed light on competition- and cheating-related situational and individual variables and mechanisms, as well. In the following introduction, first we will present the dilemma around optimal experimental circumstances in which social representations can appear, later we will present culturally based and social representation-related, situations, and finally, we will describe the personality factors which were measured in the present experiment.

The theory of social representations and observational laboratory experiments

According to Moscovici (1984/2002), the goal of social psychology is readdressing the question regarding the social nature of social psychology that is contrasting with American traditions concerning methodological individualism. Moreover, according to Moscovici (1984/2002) and Abric (1994b), it is important to use different qualitative and quantitative methods in order to explore the social representation of a given social object. Among the different methods, according to Moscovici, it is especially important to use observational data in order to see how social representations appear in their natural context. Observational studies, i.e. Jodelet’s (1989), make possible the research on behavioral aspects of social representations. However, observations in natural context are hardly quantifiable, while observations in the case of precisely controlled laboratory contexts, according to Farr (1984), can easily lead to the “weaker sense of social” psychology in which social representations cannot appear in their natural way which is opposed to Moscovici’s original theory on social representations (Moscovici, 1961, 1984). Therefore, I intended to create an observational study in which social representations can appear in the sense of Farr’s (1984) “weaker sense of social psychology”, but not only.
In order to make an attempt to bridge the above-mentioned “weaker and stronger sense of social psychology” conflict, in the present study, we wanted to follow Valsiner’s guidelines (2003) which, on the basis of Capezza’s (2002) experiment, provided an alternative solution not only behavioral aspects of social representations can appear in a relatively well – but not fully – controlled laboratory context. As we have seen previously, in this experiment, American and Estonian individuals had to shoot on the picture of a Ku-Klux-Klan member. When they were in the dilemma of shooting, or not, their monologues were different which reflected on their dissimilar socially shared collective memories. While Americans were concerned with the dilemma of conceiving a KKK member as a “horrible human being” or interpreting him as “only another human being”, Estonians did not experience such problem due to their different socially shared memories. Therefore, in this laboratory experiment, it was not aimed to create very strict experimental control, which can easily restrict the appearance of socially shared memories and social representations. In our study, we aimed at carrying out a similar experiment in which such dilemmas would appear at the behavioral level due to previously generated social representations.

As we have seen in the chapter of social representations, there were several criticisms regarding the above-mentioned Valsiner’s (2003) enablement theory, which claims that social representations function as guidelines concerning adaptation to the events of the future, and consequently they regulate human conduct. Among these critics, I would like to refer here to Bertacco’s (2003) comment who claimed that it can be a good strategy to pre-establish the relatively specific aspect of the social representations that the experimenter is indented to observe in the behavior of the participants of the experiment. In order to pre-establish the aspects of the social representations that will be later in the focus of the experiment the results of previous qualitative methods can be very useful. He had another criticism about the above-mentioned experiment, regarding the relatively narrow choice between different behaviors (not only shooting or not shooting). As it was described in the chapter on social representations our point of view is in accordance with this criticism regarding (1) the pre-established observable aspects of social representations, (2) the usefulness of previous qualitative methods that can reveal such parts of the representations, and (3) the necessity of broader behavioral set through which social representations can appear. During the design of the experiment, we wanted to take into account such aspects.

Consequently, we took into consideration differences revealed by previous more qualitative, associative researches in which academic cheating seemed to be an appropriate and observable aspect of the social representation of fraud that seemed to be a distinguishing
field regarding French and Hungarian students. Furthermore, we also wanted to take into
account the associative results of the social representation of competition, in which
Hungarians had more result-oriented social representations, while French students’ social
representation was more oriented toward the process of competition, challenges and self-
achievement. On the basis of this last difference, that conveys several cultural differences, we
expected a higher observable cheating rate among Hungarians than in the case of French
students. Finally, in the present experiment, we wanted to create a situation in which several
possibilities of cheating could appear.

As we have seen in the description of Beauvois and Joule (1981), Guimelli (1989) and
Flament (1989), situational factors have a strong impact on the decisions of persons who have
certain social representation on a social object. Therefore, we take into account the previously
described main situational factors regarding academic cheating and competition in this
experiment. Finally, we will also pay attention to the impact of personality based attitudes.

Considering Doise four observational levels (1984), and Kirchler’s more refined
classification (2007), in the present experiment, the goal was to take into account at least three
main explanatory levels of social representations: (1) French-Hungarian comparison reflects
Doise’s (1984) ideological and Kirchler’s societal level, (2) taking into account situational
variables of competition and academic cheating reflects Doise’s (1984) interpersonal level,
and (3) considering personality-based differences regarding attitudes towards competition
represents Doise’s psychological or intra-individual level. We did not intend to mix up these
different levels, but we wanted to consider them simultaneously in a high ecological validity
observational experiment.

**Three main levels of measurement of cheating and competition that this study
is aimed to concern**

In the following, the three main goals of the present study will be described. Each goal refers
to a different level of analysis. First cultural, then situational and finally individual level goals
will be presented. As we have seen in the previous chapter regarding self-reports, there were
significant differences between Hungarian and French students. Furthermore, the percentage
of Hungarian students who confessed cheating during the previous semester was two and half
times higher than their French peers. In the present study, the **main goal in the level of culture**
is the exploration of such differences at the behavioral level. On the basis of the cultural
dishonesty bias hypothesis, the difference between Hungarian and French students will be
reduced in comparison with the self-report data. As we described above, cultural dishonesty bias hypothesis claims that in countries in which other, more seriously evaluated, forms of dishonesty are more extensively present, self-reports concerning academic dishonesty are the most reliable sources of information, compared to countries in which dishonesty is less present and pervaded in the general climate. If this hypothesis is confirmed in countries in which the CPI index is low – such as in Hungary – students will confess their cheating behavior in a more deliberated way; however, in countries in which this index is high – such as in France – students will make more efforts to hide their dishonesty, thus it will lead to lower self-reported cheating rates. In order to at least partially underpin this hypothesis observational data were needed from Hungary and France that show less salient differences at the behavioral level, than in case of self-reports.

The main situational goal of this study was the clarification of the role of competition in the field of cheating. Therefore, we were interested in the observation of cheating behavior during a competition (1) in which the reward appeared as a scarce resource – in reference to the expression used by Deutsch (1949a), the situation creates a negative goal interdependence, also called closed competition according to Fülöp (1995). In the other situation, everybody could win the reward if he/she achieves sufficiently well in the task irrespectively to the achievement of the others – on the basis of Johnson and Johnson (1974) such situations are characterized by individualistic goal structure. Therefore, the main purpose of this study at the situational level is the declaration of possible differences between the two different competitive goal structures. Taking into account the results obtained by Taylor et al. (2002), the meta-analysis of Whitley (1998) and the suppositions of Anderman and Murdock (2007), we could expect that competitive situations in which students strive for scarce resources will provide a stronger positive relationship with dishonesty than in the case of individualistic goal structures.

Beyond these two goals, we were interested in the role of individual differences regarding competition in the field of cheating behavior. As we described previously, inconclusive results were found in the literature regarding the role of personality based competition and related variables in cheating behavior (Anderman & Murdock, 2007; Perry et al., 1990; Smith, 1972). Therefore, in the present study we wanted to follow the guideline of Fülöp (2006) and Ryckman et al. (1990, 1996), which allows more refined distinctions regarding personality based attitudes toward competition.
Dependent variables, independent variables and hypotheses

In the following, the main goal is the description of the examined dependent and independent variables of the experiment; subsequently related hypotheses will be set up.

Dependent variables

In the experiment, the measured dependent variables concern the cheating behavior of participants. Hetherington and Feldman (1964) distinguished four types of cheating: (1) Individualistic-opportunistic cheating which is unplanned and impulsive, (2) independent-planned cheating, (3) social cheating which involves two or three persons, and in which the subject participates actively, and (4) social cheating where the individual plays a passive role i.e. this student does not give but only receive information. In our experiment, there was no possibility to plan; however, both individualistic and social forms of cheating were possible. Regarding social cheating, the participants could play a passive and an active role (i.e. they could receive and give information). In this study, the above-mentioned categories provided the basic forms of categorizations. Concerning individual cheating, we measured the use of non-permitted materials in order to obtain task-relevant information.

Independent variables

In the following, the independent variables will be described as culture, the type of competition, individual differences regarding competition (Fülöp & Rőzs 2009), the level of surveillance, previous relationships between participants, and finally grade point average.

Hypotheses

In the experiment, the first aim is the demonstration of cultural differences between Hungarian and French students. On the basis of the meta-analysis, our previous results on academic dishonesty and the previously-described value- and institution-based differences, we expect that Hungarian students will cheat more, irrespectively of the competitive condition, of personality variables regarding competition, of the level of surveillance, of previous relationship between participants, of experienced competency and of grade point average. However, we expect that differences in behavioral level will be less important than in the case of previous self-report based study.
**H1:** Hungarian students will cheat more both in individual and in collaborative manner, than their French peers.

Regarding the *type of competition*, we expect that participants will cheat more if they compete for scarce resources (Fülöp & Csermely, 2009), when competition is closed (Fülöp, 2006), than in the case of an independent, individualistic goal structure (Johnson & Johnson, 1974) in which everybody can win irrespectively of other participants’ achievements and in which tangible resources are not limited, in an open competition (Fülöp, 2006). According to our expectation, this difference will appear independently from culture, personality variables regarding competition, the level of surveillance, previous relationship between participants, experienced competency and grade point average. This hypothesis focuses on the impact of scarce resources – as a supposed important dimension of competition – on cheating. Previous studies on academic dishonesty, very probably due to Deutsch’s (1949a) conceptualization of competition, did not pay attention to this dimension or conceived competition always in a limited resources context (Smith et al. 1972; Taylor et al. 2002; Anderman & Murdock, 2007). However, we suppose that scarcity of resources will lead to higher individual cheating occurrence, and unlimited resources will result more collaborative cheating.

**H2A:** Closed competition for scarce resources will lead to higher individual cheating occurrence, than open competition where resources are unlimited.

**H2B:** Open competition for unlimited resources will lead to higher collaborative cheating occurrence, than closed competition in which resources are limited.

In the case of *individual differences* in competitive attitude, we used Fülöp and Rózsa’s (2009) questionnaire in order to distinguish six personalities: three types of competition seeking personalities (self-development focused competitor, enemy focused competitor, winning/success focused competitor) and three types of competition avoiding personalities (losing/giving-up focused non-competitor, winning/success avoidant non-competitor, individualistic/hedonistic non-competitor).

On the basis of our expectations, those students who have high scores on winning/success focused competition and enemy focused competition will cheat more during the experiment, while students with high scores on self-developmental competition and are non-competitive will cheat less. These hypotheses are aimed to clarify the role of different
personality based attitudes toward competition regarding cheating. Hopefully, the results on the basis of this hypothesis can provide information regarding the role of competition-related personality factors, which were previously dealt with in a homogenous manner (Anderman & Murdock, 2007; Johnson, 1981; Perry et al., 1990; Smith et al., 1972; Taylor et al., 2002).

**H3:** Students who cheated have lower scores on self-developmental attitudes toward competition, than students who did not cheat. (See below the reasons and details of why only self-developmental competitive was measured.)

The risk of detection was measured in two conditions; in the first case the experimenter was present during the task in which participants have possibilities of individual and collaborative cheating (high-risk condition), while in the second condition the experimentater leaves the experimental room, therefore, participants have more possibilities of cheating (low-risk condition). On the basis of our expectations, students will cheat more in low-risk conditions, than in high-risk conditions. This hypothesis is based on previous studies (Concoran & Rotter, 1987; Covey et al., 1989; Heisler, 1974; Leming, 1978; Whitley, 1998).

**H4:** Students in low-risk conditions will cheat more, than in high-risk conditions.

In the experiment, beyond individual cheating, we also aimed at measuring collaborative cheating. Therefore, we were interested in the measurement of previous relationships between subjects. On the basis of our expectations, students who knew each other previously would tend to cheat more in a collaborative way, than students who did not know each other before the experiment. This hypothesis is based on Huston’s (1986) research which found that acquaintanceship is positively related to cheating ($r=0.53$).

**H5:** Students who knew each other previously will tend to cheat more in a collaborative manner, than students who did not have previous acquaintanceship.

Beyond the above-mentioned independent variables, we were interested in the impact of academic aptitudes on cheating behavior. Academic aptitudes were operationalized in the form of a grade point average. On the basis of our expectations and previous self-report based results (Leming, 1980; Newstead, 1996), students who have a high grade point average,
therefore, with good academic aptitudes, will tend to cheat less than students who have a low grade point average, and consequently lower academic aptitudes.

H6: Academic aptitude - as grade point average - is in negative relationship with the frequency of academic dishonesty.

Participants

In the Hungarian sample, initially 22 groups of three persons were observed. In case of three of these groups, the participants were suspicious regarding the goal of the experiment; consequently, their data were excluded from the sample. In the case of three further groups, technical problems did not allow the analysis of their data. Finally, 16 Hungarian groups and 48 persons (20 males, 28 females) participated in the experiment and were kept for all analyses. The average age of the Hungarian sample was 24.6. Nine groups participated in the closed-competition condition, while seven groups participated in the open-competition condition. In ten cases, all of three participants knew each other previously; in five cases there were two persons in the group who knew each other; and there was one group in which nobody knew the others. All of the respondents were students from a Hungarian university in the countryside.

In the French sample, initially 26 groups were observed. In case of two of these groups, participants were suspicious regarding the goal of the experiment; therefore, their data were excluded from the analysis. In two other cases, technical problems made impossible the analysis of the data. Finally, the behavior of 22 French groups and 66 participants (33 males and 33 females) was fully registered and kept. The average age was 21.21. Twelve groups participated in the closed-competition condition, 10 groups participated in the open-competition. In 12 cases, all of the participants knew each other; in six cases two persons of three knew each other; and in four cases nobody knew previously other participants. All of the respondents were students from a French university in the countryside.

In sum, 38 groups and 114 persons’ (53 male, 61 female) behavior was observed. Altogether, five groups were excluded due to suspicious participants and the data of five groups were not analyzed due to technical problems. Twenty-one groups participated in closed-competition, while seventeen groups competed in open-competition condition. In twenty two cases everybody knew each other in the group, in twelve cases two persons knew previously each other and in five cases there was no previous acquaintanceship between participants.
Methods

Experimental design

In order to carry out the experiment, three students were invited from the university campus or from the library to come over into an educational building at the same time. They were informed about the goal of the experiment, which implied that there will be a competition between three persons in which they can win a memory stick. Furthermore, they were told that the experiment would take approximately one hour. Then, they entered in an office of 16 m², in which they sat down around a round-shaped table. The distance between them was approximately 70 cm. Each participant had a computer in front of him/her; on the screen of the computers was an open online questionnaire and a Google window on the desktop could be found. The computers were arranged in a way in which they could not see each other’s screen. In the room, there was a hidden camera on a coat stand from the beginning of the experiment that recorded the behavior of the three participants. Furthermore, the online questionnaire was open with a Firefox browser that contained some previously sat items in its historic.

After the participants sat down, they were invited for a coffee or a cup of water, and during some minutes the experimenter chatted with them about student-life and university related issues in order to create a more relaxed ambiance. When the ambiance became more relaxed and participants seemed to feel comfortable, the experiment started.

The experiment contained six main segments. In the first (I) part participants were asked to read the informed consent. It contained the duration of the experiment (60-70 minutes), the reward that they can win (memory stick of 4 GB), the fact that they will be videotaped during the experiment and they were informed about the goal of the experiment in a way that it measures the relationship between competitive attitudes, beliefs, strategies and their intelligence in a three steps competitive task. In the first step, they were asked to fill in (1) a questionnaire regarding attitudes towards competition, (2) in the second part, there was a competitive/cooperative game, and (3) in the third part, they were asked to respond to quiz questions that allowed to measure their general knowledge, intelligence and thinking abilities. On the basis of the performance of the second and third task, they could win the reward. In the closed-competition condition, the person who obtained the most points won the reward. In the open-competition condition those participants who had more than 50% on the basis of the second and third tasks could win the memory stick. They were orally informed regarding the proportion of percentages that they can obtain in the second and third task: the largest part of
the percentages (90%) could be obtained in the third quiz task that contained 45 questions; however, in the second task, the winner could gain 10%, the second person 5% and the person who was the last did not gain anything.

In the second step (II) of the experiment, the participants filled in an electronic version of questionnaire regarding attitudes toward competition on a laptop. Filling in the questionnaire took approximately 13-15 minutes. This step – beyond its primary function e.g. measurement of personal attitudes toward competition – could prime students in the field of competition.

In the third step (III), they played a cooperative and competitive game that was designed for three persons. In this task, all of three participants got an envelope with two-dimensional figures; their task is to create two 10X10 cm squares. The envelopes did not contain the sufficient two-dimensional figures to build the squares. Therefore, they had to exchange the figures in order to obtain the needed figures. The exchange happened in the middle of the table; they were not allowed to give a figure to another person directly. Furthermore, they had to build their squares right in front of them; in this way direct cooperation was inhibited; they could put the figure on the middle of table that they did not need and they could take the element from the middle of table that they needed. Moreover, it was not allowed to communicate with each other either in a verbal or in a nonverbal way. Therefore, the goal was the creation of the two squares from the available two-dimensional figures with different exchange. The task was cooperative because they had to cooperate in order to collect the necessary figures, but it was competitive because the person who could create at first the two squares in an appropriate manner gained 10%, the second quickest person gained only 5%, and the slowest participant gained nothing. The students had 10 minutes to accomplish the task. However, in order to win the percentages every participant had to have the two squares in front of them within 10 minutes. Therefore, the experimenter suggested to the participants at the beginning of the task to be cooperative until someone can figure out the good solution and later it was recommended to be competitive in order to be the quickest and win the 10 percent. If competitive spirit or task involvement was visibly high during this task and participants could not accomplish the task within 10 minutes the experimenter allowed extra minutes. During this task, the behavior of students was videotaped by a handycam. The participants were told that recording their behavior was necessary because of the comparison between their competitive attitudes and their competitive behavior. Generally students enjoyed this task; therefore, after this part of the experiment they talked some minutes with each other about their experiences regarding strategies that they used. This
discussion was necessary because of the accumulated tension due to the not permitted communication during the task. At this point of the experiment, in most of the cases, participants became very involved to continue the competition.

In the fourth (IV) step, they had to fill in a quiz of 45 items that contained quite difficult general knowledge questions and mathematical problems. They were told that this test was supposed to measure their intelligence, general knowledge and thinking abilities, and that the researchers are interested in the relationship between competitive strategies and intelligence. They had 25 minutes to fill in the quiz. During these 25 five minutes, the experimenter had, between the third and tenth minutes, an urgent phone call from his supervisor and he had to leave the experimental room. Then, he remained out of the office during 7 minutes and 30 seconds. Before he left the office, he turned back and apologized and he warned the participants to work individually, then he closed the door. When he came back, he apologized again, and he asked the students about possible problems with the computers.

In the fifth step (V) of the experiment, participants filled in the rest of the questionnaire regarding demographical data, and some questions concerning the experiment.

In the sixth step (VI), when everybody finished and sent the online questionnaire, the experimenter asked the students about the goal of the experiment, and whether they were suspicious that cheating was measured. Finally, he informed them about the real goal of the experiment, and they were asked to give their permission regarding the use of the registered data. During the experiment none of the participants said that the data could not be used for scientific research.

**Used materials in order to measure dependent variables**

In this experiment, students had two possibilities of cheating. Individual cheating was operationalized in two ways: on the one hand, they could use Internet based resources, i.e. Google, in order to obtain supplementary information regarding quiz questions; on the other hand, they could use other materials, i.e. calculating machines, in order to resolve mathematical problems. Internet use was registered by the history of Firefox browser in which previously several items were put in. In this way, we could see if students used the browser in order to obtain information; however, we expected that if students were aware of the saved past browsing information they would delete all of the items of the history of the browser. Therefore, both the case of surplus items that refer to the search for supplementary
information, and if all items from the historic were deleted, this would be considered as individual cheating.

Collaborative cheating was measured with the use of the hidden camera (Nikon S210). Regarding the evaluation of collaborative cheating, four categories were distinguished: (1) one of the participants asked for the help from another one in an implicit way – for example when somebody says that the task is too difficult and later looks at the other person for a couple of seconds, (2) a student asks something that is relevant regarding the solution of the task, (3) two persons exchange task-relevant information, or (4) three persons exchange task-relevant information.

**Used materials referring to personality-related independent variables**

As we have seen previously, individual differences regarding competition were measured by Fülöp and Rózsa’s (2009) questionnaire, in order to distinguish six personalities regarding their attitudes toward competition.

The first category is close to Ryckman et al.’s (1996) self-developmental competitive category (8 items): the persons who have high scores in this dimension see competition as a mean that contribute to their personal development. The second category refers to enemy-focused competing characteristics (8 items). The persons who have high scores in this dimension use aggressive competitive strategies during competition and can be characterized by Social-Darwinist views. Furthermore, such persons think that during competition, the end justifies the means. In the third dimension, winning and success orientation of competition appear; therefore, it can be called a winning/success focused competition (8 items). Individuals with high scores in this dimension like to compare themselves with others; they think it is important to have others in order to compare themselves with those persons. Finally, they would like to be better than others and they feel that they have to prove that they are better in the most situations.

The second category refers to the winning/success avoidance of competition (8 items). Persons who have high scores in this dimension try to avoid competitive situations; they become disappointed in case of losing and they are not strenuous in competition. According to the fifth dimension in the questionnaire (8 items) losing/giving up competitors does not strive toward success; they do not care about challenges and they are afraid of losing in a competition. Finally, individualistic/hedonistic non-competitors quit from competitive situations (5 items) and they would like to meet their own requirements. Moreover, they are concerned by their own goals and they do not like to compare themselves with others.
On the basis of Fülöp and Rózsa’s (2009) work in the first five dimensions, Crombach alphas were higher than 0.7, while in the case of the latest factor e.g. individualistic/hedonistic non-competitors Crombach alpha was only 0.6. The above-mentioned factors explained 40% percent of the variance of the questionnaire. However, this questionnaire requires further developments due to the above-mentioned six factors; it can provide a more refined measurement than its alternative test provided by Ryckman et al. (1990, 1996).

In order to compare French and Hungarian results, we aimed at finding a similar factor structure regarding the French sample. Therefore, we carried out a principal component analysis with direct oblique rotation – due to the supposed correlations between different factors regarding competition – on the French sample (N = 66). On the basis of the scree plot results, three main factors revealed, which explained 40% of the variance of the measured 45 items. After exclusion of items that have more than r=0.3 partial correlation with more than one factor, some stayed on the three factors (see Table 26).

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>WSFC3: It is important to me to be better than others in some fields.</td>
<td>-0.769</td>
<td></td>
<td>0.443</td>
</tr>
<tr>
<td>WSAC3 After failure I become disappointed and I give up.</td>
<td></td>
<td>0.761</td>
<td></td>
</tr>
<tr>
<td>SD1 Competition generally inspires me.</td>
<td></td>
<td></td>
<td>0.656</td>
</tr>
<tr>
<td>WSAC1 If I lose, I’m disappointed and I give up.</td>
<td>-0.703</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WSAC5 It is useless to fight for something, rather I give it up.</td>
<td>-0.694</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WSAC8 If I have to fight for something, I will give it up.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EFC8: I’m often in conflict with others.</td>
<td></td>
<td>-0.786</td>
<td></td>
</tr>
<tr>
<td>SD2 Competition helps me to develop my abilities.</td>
<td></td>
<td>0.703</td>
<td></td>
</tr>
<tr>
<td>WSFC7 I make efforts to be better than others.</td>
<td>0.465</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD3 I adore tests.</td>
<td>0.327</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WSAC2 I easily give up things.</td>
<td></td>
<td>-0.725</td>
<td></td>
</tr>
<tr>
<td>SD7 I become more creative in competitive situations.</td>
<td></td>
<td>0.833</td>
<td></td>
</tr>
<tr>
<td>LGC4 Surpassing others is not a nice thing.</td>
<td></td>
<td>-0.513</td>
<td></td>
</tr>
<tr>
<td>EFC6 (inv) I don’t want to win at the expense of others.</td>
<td></td>
<td></td>
<td>0.477</td>
</tr>
<tr>
<td>LGC6 I don’t like to be better than others.</td>
<td></td>
<td>0.441</td>
<td></td>
</tr>
<tr>
<td>LGC8 (inv) I like intellectual duels.</td>
<td></td>
<td>0.337</td>
<td></td>
</tr>
<tr>
<td>LGC1 Due to I lost so many times, I aoid competition.</td>
<td></td>
<td>-0.676</td>
<td></td>
</tr>
<tr>
<td>WSFC4: I like excelling from others.</td>
<td></td>
<td>0.481</td>
<td></td>
</tr>
<tr>
<td>EFC4. I do everything for winning, sometimes not nice things also.</td>
<td></td>
<td>0.485</td>
<td></td>
</tr>
<tr>
<td>WSCF1 I like comparing myself with others and knowing where I am in comparison with them.</td>
<td></td>
<td>0.513</td>
<td></td>
</tr>
<tr>
<td>LGC2 Rather I withdraw from competitions.</td>
<td></td>
<td>0.473</td>
<td></td>
</tr>
<tr>
<td>EFC1 I can be very aggressive with my rivals.</td>
<td></td>
<td>-0.751</td>
<td></td>
</tr>
<tr>
<td>LGC3 I don’t care a lot of things, I have no reason to fight,</td>
<td></td>
<td>-0.473</td>
<td></td>
</tr>
<tr>
<td>WSAC7 (inv) I never give up.</td>
<td>0.636</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD6 I adore challenges.</td>
<td></td>
<td></td>
<td>0.712</td>
</tr>
<tr>
<td>LGC7 I don’t like take risk.</td>
<td></td>
<td>0.309</td>
<td></td>
</tr>
<tr>
<td>WSAC4 Generally I don’t know what I want.</td>
<td>0.696</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD4 I can be characterized by strong competitive spirit.</td>
<td></td>
<td></td>
<td>0.798</td>
</tr>
<tr>
<td>EFC5 (inv) There are wolf rules in competition, I adapt to them.</td>
<td></td>
<td>0.371</td>
<td></td>
</tr>
<tr>
<td>WSAC6 (inv) I resist in my goals</td>
<td></td>
<td>0.656</td>
<td></td>
</tr>
</tbody>
</table>

*Table 26. Results of the principal component analysis with direct oblique rotation on the data of French students (N = 66). Items are excluded that are in correlation with more than one factor above r = 0.3. The explained variance was 40%. WSFC – winning/success focused competitive, SD – self developmental, WSAC – winning/success avoidance of competition, EFC – enemy-focused competitive, LGC - losing/giving up focused competitive, the number after these codes refers to the number of item in the original, Hungarian scale.*
As we can see in Table 26, all of three factors contain items from the different dimensions of the Hungarian questionnaire. However, we can see regarding the first factor, the six items with the highest partial correlation belong to the original losing/giving up focused competition dimension. Furthermore, regarding the second factor, the five strongest partial correlations were measured in the case of five items that belong to the self-developmental competitive category. Finally, in the case of the third factor, the three strongest correlations were measured for items that belong to the original enemy-focused competitive dimension. In order to make comparable Hungarian and French data the other, inconsistent items were ignored. Consequently, taking into account six items from the winning/success avoidance of competition, five items from the self-developmental competitive dimension and three items from the enemy-focused competitive dimension a subsequent principal component analysis was carried out with oblique rotation.

This new principal component analysis, with direct oblique rotation contained six items from the avoidance of competition dimension, five items from self-developmental competitive dimension and three items from aggressively competitive dimension explained 58.6% of the variance, and on the basis of the scree plots again we could conclude that counting with three factors is the optimal way. The results showed that, in the case of one item, the partial correlation was higher than 0.3 with more than one factor. However, one item from the enemy-focused competitive dimension correlated with the factor of self-developmental competition factor (see Table 27). In the following step, these two items were excluded from the model.

<table>
<thead>
<tr>
<th>Item</th>
<th>WSAC</th>
<th>SD</th>
<th>EFC</th>
</tr>
</thead>
<tbody>
<tr>
<td>SD1 Competition generally inspires me.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WSAC3 After failure I become disappointed and I give up.</td>
<td>0.793</td>
<td></td>
<td></td>
</tr>
<tr>
<td>WSAC5 It is useless to fight for something, rather I give it up.</td>
<td>0.795</td>
<td>0.342</td>
<td></td>
</tr>
<tr>
<td>WSAC8 If I have to fight for something, I will give it up.</td>
<td>0.73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EFC8 I’m often in conflict with others.</td>
<td>0.392</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD2 Competition helps me to develop my abilities.</td>
<td></td>
<td>0.751</td>
<td></td>
</tr>
<tr>
<td>WSAC2 I give up things easily.</td>
<td>0.713</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD7 I become more creative in competitive situations.</td>
<td></td>
<td>0.878</td>
<td>-0.798</td>
</tr>
<tr>
<td>EFC1 I can be very aggressive with my rivals.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD6 I adore challenges.</td>
<td>0.782</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD4 I can be characterized by strong competitive spirit.</td>
<td></td>
<td>0.806</td>
<td></td>
</tr>
<tr>
<td>WSAC4 Generally I don’t know what I want.</td>
<td>-0.712</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EFC6 (inv) I don’t want to win at the expense of others.</td>
<td></td>
<td></td>
<td>0.731</td>
</tr>
<tr>
<td>WSAC6 (inv) I persist in my goals.</td>
<td>-0.712</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 27. Results of the principal component analysis with direct oblique rotation on French students (N = 66) including items that were in the strongest partial correlation to the factors revealed by the first principal component analysis and that were consistent with the Fülöp and Rózsa’s Hungarian data. The explained variance was 58.6%. SD – self developmental, WSAC – winning/success avoidance of competition, EFC – enemy-focused, the number after these codes refers to the number of item in the original, Hungarian scale.
The results of the second principal components analysis suggest that the fifth item, the avoidance of competition dimension, has to be dropped because it has more than 0.3 partial correlation with the aggressively competitive factor. Furthermore, due to the fact that item EFC8 belongs to the avoidance of competition factor, instead of the previously expected aggressively competitive factor, this item was also deleted. If this item was not deleted, due to this inconsistency in the forthcoming factor analysis without WSAC5, EFC8 correlates with enemy-focused competitive factor ($r=0.384$), as well as avoidance of competition factor ($r=-0.323$).

After ignoring these two items, we carried out again a principal component analysis with direct oblique rotation on the remaining 12 items. On the basis of the scree plot, three factors were advised. This model explained 61.87% of the variance. The results can be seen in Table 28. Regarding the factors Self-development dimension which contains 5 items, avoidance of competition which contains 5 items, and enemy-focused competitive factor which includes two items.

<table>
<thead>
<tr>
<th>Item</th>
<th>Self-developmental competition</th>
<th>Avoidance of competition</th>
<th>Aggressively competitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>SD1</td>
<td>Competition generally inspires me.</td>
<td>0.8</td>
<td></td>
</tr>
<tr>
<td>WSAC3</td>
<td>After failure I become disappointed and I give up.</td>
<td>0.804</td>
<td></td>
</tr>
<tr>
<td>WSAC8</td>
<td>If I have to fight for something, I will give it up.</td>
<td>0.752</td>
<td></td>
</tr>
<tr>
<td>SD2</td>
<td>Competition helps me to develop my abilities.</td>
<td>0.755</td>
<td></td>
</tr>
<tr>
<td>WSAC2</td>
<td>I give up things easily.</td>
<td>0.684</td>
<td></td>
</tr>
<tr>
<td>SD7</td>
<td>I become more creative in competitive situations.</td>
<td>0.876</td>
<td>-0.747</td>
</tr>
<tr>
<td>SD2</td>
<td>I can be very aggressive with my rivals.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD6</td>
<td>I adore challenges.</td>
<td>0.777</td>
<td></td>
</tr>
<tr>
<td>SD4</td>
<td>I can be characterized by strong competitive spirit.</td>
<td>0.801</td>
<td></td>
</tr>
<tr>
<td>EFC6 (inv)</td>
<td>I don’t want to win at the expense of others.</td>
<td>0.786</td>
<td></td>
</tr>
<tr>
<td>WSAC5 (inv)</td>
<td>I persist in my goals</td>
<td>-0.717</td>
<td></td>
</tr>
<tr>
<td>WSAC4</td>
<td>Generally I don’t know what I want.</td>
<td>-0.771</td>
<td></td>
</tr>
</tbody>
</table>

Table 28. Results of the third principal component analysis with direct oblique rotation on French students (N = 66). The explained variance was 61.87%. SD – self developmental, EFC – enemy-focused competition, WSAC – enemy focused competitive, WSAC – winning/success avoidant competitive, the number after these codes refers to the number of item in the original, Hungarian scale.

After the declaration of measured factors due to the reliability analysis, Crombach’s alphas were computed in order to clarify the internal consistency reliability of the measured item scores. On the basis of the reliability analysis in the self developmental competitive dimension, Crombach’s alpha was 0.862, regarding winning/success avoidance of competition, Crombach’s alpha was 0.707, and finally regarding Enemy-focused competitive dimension, Crombach’s alpha was only 0.413. Therefore, during further comparisons between Hungarian and French students on the personality-related competition dimension, we can use
only two factors: (1) Self-developmental competitive, and (2) winning/success avoidance of competition dimensions with usage of the above-mentioned 10 items.

At this point it is necessary to narrow our hypothesis regarding personality dimensions because of the comparability of the Hungarian and French version of competition scale. Therefore, on the basis of the above-described results, we expect that high scores on self-developmental competitive negatively relates to cheating behavior both in the case of Hungarian, and among French students.

**Operationalization of open and closed competition**

In the open-competitive setting, the three persons who participated in the group could win the reward; it depended only on the achievement of the person during the second (with the figures) and third (quiz) task. In the closed-competitive condition, only one of the participants could win the reward, the person who obtained the highest score during the second and third task.

**Results**

In order to prove differences between Hungarian and French students’ cheating behavior, individual and collaborative cheating forms were measured separately. Firstly, results regarding collaborative cheating, later individual cheating, and finally overall cheating will be compared at the group level.

**Collaborative cheating – Hungarian-French group level comparison**

As we described above, collaborative cheating behaviors were measured at the group level which was evaluated in a five point scale in which (0) referred to the lack of collaborative cheating, (1) referred to a group in which at least one student asked help from another student in an implicit way, (2) referred to at least one student’s attempt to ask another student’s solution regarding the results in an explicit way, (3) referred to the exchange of information between two students – at least one question and one response, and (4) referred to collaborative cheating in which all of the participants talked about the questions of the quiz. In Table 29, the number of Hungarian and French groups can be seen as they belong to the above-mentioned categories.
<table>
<thead>
<tr>
<th></th>
<th>Hungarian groups</th>
<th></th>
<th>French groups</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sum (16=100%)</td>
<td>Open (7=100%)</td>
<td>Closed (9=100%)</td>
<td>Sum (22=100%)</td>
</tr>
<tr>
<td>The lack of collaborative cheating (0)</td>
<td>12 (75%)</td>
<td>3 (42.8%)</td>
<td>9 (100%)</td>
<td>9 (40.9%)</td>
</tr>
<tr>
<td>Presence of any level of collaborative cheating</td>
<td>4 (25%)</td>
<td>4 (57.2%)</td>
<td>0 (0%)</td>
<td>13 (59.1%)</td>
</tr>
<tr>
<td>Implicit demand(s) (1)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>1 (4.54%)</td>
</tr>
<tr>
<td>Explicit demand(s) (2)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>4 (18.16%)</td>
</tr>
<tr>
<td>Exchange of information between two persons (3)</td>
<td>1 (6.25%)</td>
<td>1 (14.3%)</td>
<td>0 (0%)</td>
<td>1 (4.54%)</td>
</tr>
<tr>
<td>Exchange of information between three persons (4)</td>
<td>3 (18.75%)</td>
<td>3 (42.8%)</td>
<td>0 (0%)</td>
<td>7 (31.81%)</td>
</tr>
</tbody>
</table>

Table 29. Collaborative cheating forms during the quiz part of the experiment

In the comparison of all of four forms of collaborative cheating of Hungarian and French students, we can see that, contrary to our expectations, French students cheated significantly more than Hungarians in this experiment ($\chi^2 = 4.354$, $p < 0.037$). Regarding the occurrence of implicit demands, there was not a significant difference between the two groups ($\chi^2 = 0.747$, $p = 0.387$); concerning the prevalence of explicit demands, there was a tendency for French students to cheat more in this manner than Hungarians ($\chi^2 = 3.251$, $p < 0.071$); in case of exchange of information between two participants, there was no significant difference either ($\chi^2 = 0.054$, $p = 0.816$); finally, no significant difference was measured referring to exchange of information between all of the participants ($\chi^2 = 0.816$, $p = 0.366$).

**Individual and overall cheating Hungarian-French group level comparison**

Contrary to our expectations, individual forms of cheating appeared very rarely in the experiment. Individuals did not frequently use Google in order to obtain information in order
to succeed well on the quiz. However, they used frequently more their cell phone’s calculating machine in order to find solution more easily to mathematics related questions. Therefore, we found seven groups in which individual cheating appeared. Among these groups, in three cases individual cheating occurred in French groups and in four cases in Hungarian groups. In the Hungarian sample, there were only four persons out of 48 who used their calculator. While, in the French groups, individual cheating was committed by only three persons out of 66. Among them, only one participant used Google – in a detectable way – in order to obtain responses. Furthermore, in this case, he was asked by others to help them responding to the questions. What was really interesting in this case, even if he looked for responses for the others, on the basis of the record, he did not share the information with the others, and finally he is the one who won the prize.

Furthermore, individual cheating coincided with at least one form of collaborative cheating, as well. There was only one case, in the Hungarian sample, in which individual cheating appeared without collaborative cheating, but here two persons started to use their calculating machine on their cell phone. In the rest, out of five cases (when Hungarian students individually cheated), there were three or four level collaborative cheating in parallel with individual cheating. Consequently, we added this unique case to the frequency of collaborative cheating of Hungarians and we counted and compared the number of Hungarian and French groups in which either collaborative or individual forms of cheating appeared. On the basis of the results, the number of French groups tended to be higher than the number of Hungarian groups in which cheating occurred ($\chi^2 = 2.88, p < 0.09$).

*Therefore, Hypothesis 1 was not supported at the group level, because the number of French groups in which either collaborative or individual cheating occurred tended to be higher than the number of Hungarian groups in which students cheated.*

**Collaborative and individual cheating – French-Hungarian individual level cheating**

In this analysis, similarly to the former one, firstly collaborative cheating was analyzed, later individual cheating, finally overall cheating at the individual level. The results show that significantly more French students committed cheating in a collaborative manner ($\chi^2 = 5.392, p < 0.02$). However, it was not the case regarding individual cheating in which the difference was not significant ($\chi^2 = 0.692, p = 0.406$). Finally, there was a tendency concerning the
occurrence of overall cheating ($\chi^2 = 3.393$, $p < 0.065$). According to this last result, the proportion of French students tends to be higher than the proportion of Hungarians who cheated during the experiment (see Table 30 concerning the percentages).

Therefore, Hypothesis 1 was not supported at the individual level as well, because the number of French students who engaged in either collaborative or individual cheating tended to be higher than the number of Hungarian students who committed cheating.

<table>
<thead>
<tr>
<th>Hungarian groups</th>
<th>French groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sum (48=100%)</td>
</tr>
<tr>
<td>Number of individuals who participated in collaborative cheating</td>
<td>11 (22.9%)</td>
</tr>
<tr>
<td>Number of individuals who participated in individual cheating</td>
<td>4 (8.3%)</td>
</tr>
<tr>
<td>Collaborative and individual cheating together</td>
<td>15 (31.2%)</td>
</tr>
</tbody>
</table>

Table 30. Collaborative, individual and overall cheating occurrences in an individual level regarding French and Hungarian students in open and closed competitive situations

Cheating behavior in open and closed competitive situations – group level

If we only take into account the condition of open-competition, there was no significant difference between Hungarian and French students regarding the occurrence of collaborative cheating ($\chi^2 = 0.014$, $p = 0.906$). Furthermore, taking into consideration the first two categories referring to implicit demands ($\chi^2 = 0.744$, $p = 0.388$) and explicit demands ($\chi^2 = 1.587$, $p = 0.208$) there was no difference regarding collaborative cheating in open-competition. Finally, in open competition there was no significant difference between Hungarians and French students concerning collaboration between two persons ($\chi^2 = 1.587$, $p = 0.208$) and among the three participants ($\chi^2 = 0.298$, $p = 0.585$).

Contrary to the open competition condition, French students cheated more in a collaborative manner in a closed-competitive setting than Hungarians ($\chi^2 = 7.875$, $p < 0.005$).
In the case of closed-competition, there was no implicit demand regarding task-relevant information. Furthermore, there was no significant difference between the two groups both regarding explicit demand from one of the participants ($\chi^2 = 1.658, p = 0.198$), both concerning exchange of information between two participants ($\chi^2 = 0.788, p = 0.375$) in closed-competition. However, tendency was found in the case of the fourth category that refers to collaborative dishonesty among the three participants ($\chi^2 = 3.706, p < 0.054$); French students tended to cheat more in this manner.

Finally, considering both French and Hungarian samples, the results obtained at the group level analysis do not underpin the second hypothesis:

Contrary to our expectations regarding Hypothesis 2 in the open-competition condition the occurrence of collaborative cheating was not higher than in the closed-competition condition ($\chi^2 = 2.469, p = 0.116$).

Contrary to our expectations regarding Hypothesis 2 there was no difference between individual cheating rates at the group level regarding open- and closed-competitive conditions ($\chi^2 = 0.375, p = 0.54$).

**Cheating behavior in open- and closed-competitive situations – individual level**

After this individual level analysis regarding cheating behavior of French and Hungarian students, we were interested in the comparison between different competitive conditions considering collaborative, individual and overall cheating occurrences in the Hungarian, French subsample, and finally, regarding the whole sample. Among Hungarians, there was a significant difference between open- and closed-competition regarding collaborative cheating: significantly more persons engaged in collaborative cheating in the open-competition condition, than in closed-competition condition ($\chi^2 = 19.347, p < 0.001$). However, in the Hungarian sample, there was no significant difference between competitive conditions regarding individual cheating ($\chi^2 = 0.069, p = 0.792$). In the case of the overall cheating occurrence that includes both individual and collaborative cheating, significantly more Hungarians cheated in open-competition condition than in closed-competition condition ($\chi^2 = 12.098, p < 0.001$).

In the case of the French sample, there was no difference between the two competition conditions considering collaborative cheating ($\chi^2 = 0.166, p < 0.684$), similarly to individual cheating ($\chi^2 = 2.619, p < 0.106$), and overall cheating occurrence ($\chi^2 = 0.166, p < 0.684$).
Regarding the whole sample, there was more collaborative cheating in the open-competition condition in comparison with closed-competition condition ($\chi^2 = 7.865$, $p < 0.005$). However, there was no significant difference between the two measured competitive conditions regarding individual cheating ($\chi^2 = 0.788$, $p = 0.375$). Finally, considering overall cheating occurrences in the open-competition, significantly more student cheated than in the closed-competition condition ($\chi^2 = 5.881$, $p < 0.015$).

These results partly confirm the second hypothesis: *In open-competitive condition more students cheated in a collaborative way, however in closed-competition students did not cheat more in an individual way.*

Therefore, the second hypothesis can only be confirmed in a narrow sense: first of all, the group level analysis did not support our hypotheses regarding the relationship between competitive conditions and different forms of cheating. However, the individual level analysis showed that, in open-competitive condition, students cheat more in a collaborative manner, and this was especially true for Hungarian students. Regarding the positive relationship between higher individual cheating and closed-competition, similarly to the group level analysis, the second hypothesis was not supported at the individual level analysis.

**Relationship between competition-related personality factors and cheating behavior**

On the basis of the above-described results of the factor analysis, only two factors e.g. self developmental competitive and winning/losing avoidance of competition, of the original six were analyzed regarding individual and collaborative cheating behavior. On the basis of the third hypothesis, high scores of self-developmental competitive attitudes towards competition negatively relates to cheating behavior. In order to examine this relationship, individual, collaborative and overall cheating occurrences were measured. Firstly attitudes towards self-developmental competition were analyzed in a comparison between students who cheated in a collaborative manner and students who did not cheat in this way. The results suggest that students who cheated in a collaborative manner have a significantly lower average on attitudes towards self-developmental competitions in comparison with students who did not cheat in the experiment ($t= 0.231$, $F(df=106) = 0.231$, $p = 0.047$). However, we did not find differences between attitudes toward self-developmental competition in the comparison between students who cheated individually and those who did not cheat in this way ($t= -0.491$, $F(df=106) = -0.491$, $p = 0.624$). Similarly to individual
cheating, there was no significant difference regarding self-developmental attitudes between students who cheated anyhow and those who did not cheat (t= 1.233, F(df=106) = 1.11, p = 0.22).

Taking into account both individual and collaborative cheating, there was no significant difference between students who cheated and those who did not cheat during the experiment regarding attitudes toward self-developmental competition (t= 1.233, F(df=106) = 1.11, p = 0.22).

*These results partly support the third hypothesis regarding higher self-developmental attitudes toward competition which is in a negative relationship with cheating. In the present case, we can only conclude that the students who cheated in a collaborative manner had lower self-developmental attitudes toward competition, than students who did not cheat in this way. However, taking into account both individual and collaborative cheating, there was no difference between attitudes regarding self-developmental competition.*

Considering only the Hungarian group, we have similar results as in the above-mentioned one: Hungarian students who committed collaborative cheating have a significantly lower average on self-developmental attitudes, than those students who did not cheat (t = 2.582, F(df=46) = 0.269, p = 0.013). However, both in the case of individual (t = - 0.046, F(df=46) = 9.61, p = 0.963) and overall cheating (t = 1.252, F(df=46) = 0.476, p = 0.217) we did not find such differences between Hungarian cheaters and non-cheaters concerning self-development-related attitudes toward competition.

Regarding the French sample, there was no difference between cheaters and non-cheaters concerning self-developmental competitive attitudes, both in the case of collaborative cheating (t = 0.365, F(df=58) = 0.887, p = 0.717), individual cheating (t = - 0.573, F(df=58) = 0.305, p = 0.569), as well overall cheating (t = 0.365, F(df=58) = 0.887, p = 0.717).

Therefore, we can see a *partial support of the third hypotheses regarding self-developmental attitudes towards competition and cheating behavior which is confirmed mainly because of the Hungarian results in the field of collaborative cheating, while the third hypothesis was not supported on the basis of the French results.*
**Risk of detection**

On the basis of the results, there was only one French group in which we detected cheating behavior during the period when the experimenter was in the experimental room. Furthermore, cheating did not occur in the Hungarian groups when the experimenter was present. Therefore, we can conclude that, in this experimental setting, the risk of detection played a crucial role. In 17 cases out of 38 experiments, students cheated when the experimenter was not present; however, there was only one case out of 38 in which students cheated in a collaborative manner when the experimenter was present. Therefore, due to the low number of cheating in high-risk condition, in the following we did not use the data from this condition.

**Acquaintanceship and collaborative cheating**

According to the fifth hypothesis previous acquaintanceship between participants is in positive relationship with collaborative cheating. In order to measure this relationship, we correlated the four dimension of collaborative cheating (0 – no collaborative cheating, 1 – implicit demand, 2 – explicit demand, 3 – collaboration between two persons and 4 – collaboration between three persons) with previously established relationship (1 – the participants did not know each other previously, 2 – two persons knew each other previously, 3 – all of three participants knew each other previously) at the group level. The results support the fifth hypothesis: the higher the number of participants who previously knew each other, the occurrence of collaborative cheating will be higher ($r = 0.452$, $p < 0.004$). However, the relationship is not significant in the case of the Hungarian sample ($r = 0.411$, $p = 0.114$), but it is quite strong regarding French students ($r = 0.563$, $p < 0.006$).

In sum, the fifth hypothesis is only confirmed for the French participants, due to the positive relationship between collaborative cheating and acquaintanceship between participants. This relationship is strong for the French sample; however, the relationship is not significant among Hungarians.

**Academic aptitude and cheating behavior**

On the basis of the sixth hypothesis, those students who have a high grade point average will cheat less than those who have good academic aptitudes. Due to differences between
Hungarian and French grading system, data were analyzed regarding Hungarian and French students separately.

In the Hungarian sample, cheaters and non-cheaters regarding a grade point average was not different \( (t = 1.381, F(df=46) = 0.045, p = 0.174) \). Similar results were revealed in the case of individual cheating \( (t = -0.531, F(df=46) = 0.001, p = 0.979) \). However, students who engaged in collaborative cheating tend to have a smaller grade point average than students who did not commit collaborative cheating \( (t = 1.687, F(df=46) = 0.467, p = 0.098) \).

In the French sample, there was no difference between cheaters and non-cheaters regarding their grade point average \( (t = 0.684, F(df=57) = 1.991, p = 0.497) \), and no differences were found in the case of collaborative cheating \( (t = 0.684, F(df=57) = 1.1991, p = 0.497) \) as well as individual cheating \( (t = 0.811, F(df=57) = 1.565, p = 0.811) \).

Therefore, except a weak tendency in the collaborative cheating for the Hungarian group, there was no significant difference between cheaters and non-cheaters regarding their grade point average, neither in the Hungarian sample nor in the French sample. Consequently, the sixth hypothesis is not confirmed.

The impact of nationality, open- and closed-competitive conditions, attitudes toward self-developmental competition and previous relationships on cheating in the whole sample

In the following, the impact of the above-measured independent variables as (a) nationality, (b) open- and closed-competitive settings, (c) attitudes towards self-developmental competition, (d) previous relationship between participants, and on (1) collaborative cheating, and on (2) overall cheating behavior regarding the whole sample.

In order to measure the impact of the above-mentioned independent variables’ impact on the occurrence of collaborative cheating, firstly the whole sample was analyzed, including French and Hungarian students. These results were calculated on the basis of individual responses with a linear regression analysis with stepwise method. On the basis of the results of the individual level of analysis which was carried out, three independent variables have a significant impact on the occurrence of collaborative cheating \( (R^2 = 0.24, F(df=3, 104) = 10.951, p < 0.001) \). Previous relationship between participants had the strongest impact on collaborative cheating \( (\beta = 0.375, t = 4.218, p < 0.001) \); nationality had the second largest impact \( (\beta = 0.265, t = 3.004, p < 0.003) \), and finally the competitive condition also had significant impact \( (\beta = 0.232, t = 2.687, p < 0.008) \). Attitudes towards self-developmental competitive behavior did not have a significant impact on collaborative cheating \( (\beta = -0.083, \)
Therefore, previous relationship between participants, French nationality and open-competition explain 24% of the variance of collaborative cheating regarding the whole sample.

In the second step, we were interested in the impact of relationship between students, nationality, competitive conditions and attitudes toward self-developmental competition on overall cheating occurrence. In this case, similarly to collaborative cheating, the same variables have a significant impact on cheating; however, the explained variance was lower in this case ($R^2 = 0.219$, $F(df=3, 104) = 9.735$, $p < 0.001$). Similarly to the above-described results, previous relationship between students had the largest impact ($β = 0.394$, $t = 4.372$, $p < 0.001$), nationality the second greatest impact ($β = 0.225$, $t = 2.513$, $p < 0.014$), while the competition condition had the weakest impact on cheating behavior ($β = 0.191$, $t = 2.183$, $p < 0.031$), and finally, attitudes toward competition did not have a significant impact on the cheating behavior ($β = -0.021$, $t = -0.224$, $p < 0.823$).

The impact of open- and closed-competitive conditions, attitudes toward self-developmental competition, previous relationship between participants and grade point average on cheating among French and Hungarian students

Furthermore, the impact of (a) open- and closed-competitive conditions, (b) attitudes towards self-developmental competition, (c) previous relationship between participants and (d) grade point average will be measured on (1) collaborative cheating, and on (2) overall cheating behavior in the case of Hungarian and French students separately.

In the case of the French sample, we carried out a similar analysis; however, we added the grade point average to the model. Therefore, the impact of (a) previous relationship between participants, (b) the condition of competition, (c) attitudes toward self-developmental competition, and (d) grade point average was measured on French students’ collaborative cheating. On the basis of French results, only previous relationship between students ($β = 0.461$, $t = 0.704$, $p < 0.001$) predicted the collaborative cheating behavior ($R^2 = 0.212$, $F(df=1, 57) = 15.379$, $p < 0.001$). Regarding the overall cheating occurrence, the same results appeared, due to the overlap between collaborative and individual cheating behavior e.g. those students who cheated individually, also cheated in a collaborative manner.

Concerning Hungarian results, only the competition condition ($β = 0.618$, $t = 5.335$, $p < 0.001$) had a significant impact on collaborative cheating behavior ($R^2 = 0.382$, $F(df=1, 47) = 28.462$, $p < 0.001$). Neither attitudes toward self-development ($β = 0.524$, $t = -1.692$, $p = 0.098$), nor previous relationship between students ($β = 0.166$, $t = 1.404$, $p = 0.167$) and grade
point average ($\beta = -0.089$, $t = -0.741$, $p = 0.462$) have a significant impact on collaborative cheating. On the basis of these results, the appearance of collaborative cheating depends mainly on competitive conditions among Hungarians: the open-competition condition explains 38 percent of the variance of Hungarians’ cheating behavior.

Similar results were revealed among Hungarians in the case of overall cheating occurrence. Only competition condition ($\beta = 0.502$, $t = 3.937$, $p < 0.001$) had a significant impact on the occurrence of cheating ($R^2 = 0.252$, $F(df=1, 47) = 15.501$, $p < 0.001$). Neither attitudes toward self-development ($\beta = -0.046$, $t = -0.344$, $p = 0.732$), nor previous relationship between students ($\beta = 0.265$, $t = 1.83$, $p = 0.074$) or grade point average ($\beta = -0.076$, $t = -0.574$, $p = 0.569$) have a significant impact on occurrence of cheating. In the case of the overall cheating, similarly to the collaborative cheating, open-competition is a predictor of the occurrence of cheating among Hungarians.

In sum, among French students’ previous relationships between students predicted cheating behavior. However, regarding Hungarian students, open-competition in which resources are unlimited predicts cheating behavior. In both cases, cheating behavior generally includes collaborative forms of cheating which occurred more frequently in the experiment than individual forms of cheating.

**Conclusion**

On the basis of the group-based results, we have seen that, in French groups, students cheat more in a collaborative way than in Hungarian groups. Furthermore, the number of French groups tended to be higher concerning if both collaborative and individual forms of cheating are taken into consideration. At the individual level, the analysis provided similar results. At both the group and the individual levels, the analysis provided opposing results regarding the first hypothesis. However, on the basis of cultural dishonesty bias, we expected less salient difference between Hungarians and French students than in the previous questionnaire studies.

The second hypothesis concerning the relationships between (2A) open-competitive situations and collaborative cheating, and (2B) closed-competition and individual cheating was only partly confirmed. There was no relationship between the closed-competition condition and individual cheating. However, significantly higher collaborative cheating occurrence were measured in the open-competitive condition than in the closed-competitive condition in the individual analysis. This last result was not supported at the group level.
In case of personality differences in self-developmental competition, regarding the whole sample on both individual and collaborative (overall) cheating there was no significant difference between cheaters and students who did not cheat. However, in the case of collaborative cheating, the difference was significant: those students who did not cheat collaboratively in the experiment were more in a self-developmental competitive situation than the students who cheated collaboratively.

Different levels of risk of detection were not taken into account during the analysis because there was only one group in which cheating was detected in high-risk condition.

Hypothesis five was supported by the results due to the positive relationship between the number of students in the group who knew each other, and the occurrence of collaborative cheating. This relationship was not significant regarding Hungarians; however, a relatively strong relationship was found regarding French students.

Moreover, our results did not prove the inverse relationship between grade-point average and academic cheating.

In the final part of the analysis, we examined the impact of the above-measured independent variables i.e. nationality, open- and closed-competitive setting, attitudes towards self-developmental competition, previous relationship between participants and on collaborative and on overall cheating behavior regarding the whole sample. The results show that both in the case of collaborative and in overall cheating occurrences depended on the number of participants who knew previously each other, French nationality and open-competition. Furthermore, regarding the French sample, previous acquaintance predicted the occurrence of cheating, while in the case of Hungarian students it is mostly open-competition predicted the occurrence of cheating.

**Discussion**

On the basis of our expectations, Hungarian students were expected to cheat more than their French peers on the basis of their social representation on fraud, on the basis of previous, and on self-reported academic cheating results. Furthermore, as we have seen, even if we take into consideration cultural dishonesty bias and situational variables that we controlled, in the experiment we expected Hungarians to cheat more than French students. The results suggest the contrary: there is no significant difference between Hungarian and French students.
regarding cheating rates which includes both collaborative and individual cheating. However, in the case of collaborative cheating, French students cheated more than Hungarians.

There are some possible explanations of this result: In this experiment, contrary to our expectations, individual cheating appeared very rarely, with an exceptional use of Google. Therefore, in the further calculations, data based on collaborative cheating received more emphasis. If it was possible to equilibrate collaborative and individual cheating, maybe the results would be closer to the reality in which students can choose more freely between individual and collaborative forms of cheating.

Furthermore, in this experiment, students did not have time to prepare materials previously, as it is the case for an exam; excluding such preparations can influence the occurrence of cheating in both samples.

Moreover, this situation could not imitate a real exam situation in several respects. However, one can influence student’s behavior fundamentally – in this situation students did not lose anything tangible, but they could win a tangible reward. On the basis of prospect theory, risk-taking behavior is more probable in loss-situations compared to gain-situations. The framing of this experiment was supposedly closer to the gain-situation, not like a more or less competitive exam situation in which students can lose tangible resources (credit, great amount of time for preparation again and sometimes paying supplementary tuition fees).

The second hypothesis was only partially supported: in closed-competitive conditions the number of individual cheating was not higher than in open-competitive settings. This result can be explained by the relatively rare occurrence of individual cheating during the experiment. In order to prove more effectively this hypothesis, an experimental setting is needed in which individual forms of cheating can appear in a more deliberate manner than in the present case. However, in the open-competition condition the number of collaborative cheating was significantly higher than in the case of closed-competition condition.

As we have seen, non-collaborative cheaters had significantly higher scores on self-developmental competitive scale than collaborative cheaters. On the basis of Fülöp and Rózsa’s (2009) questionnaire, it would be useful to analyze further dimensions of attitudes towards competition. However, in order to obtain such results it would be important to validate the questionnaire of competition in French.

On the basis of previous studies, a positive relationship was expected and found between previous acquaintanceship and collaborative cheating; furthermore, this latter independent variable had the strongest impact on the whole samples’ cheating behavior. Therefore, on the basis of these results, previous connections play a crucial role in
collaborative cheating. As we have seen, it is especially true regarding French students, as previous relationships are less important regarding collaborative cheating in the case of Hungarian students.

The most important result of this analysis was in this experiment to reveal independent variables that have an impact on Hungarian and French students’ collaborative cheating behavior. Whereas, among French students, it is the number of participants who knew each other which had a significant positive impact on collaborative cheating, in the case of Hungarians open competitive setting is the most important situational variable that predicts the appearance of collaborative cheating. How these results fit to (1) the theory of social representations, (2) Hungarian and French cultural characteristics, and (3) previous researches on competition and cheating will be talked about in the general discussion.
Conclusion

The conclusion will be divided into four main parts. In the first section, I would like to refer shortly to the used methods during the analysis. In the second part, I would like to interpret the results from the perspective of social representations. Then, the results will be interpreted from the perspective of competition. In the last part, the results will be interpreted from the viewpoint of academic cheating. Finally, these concluding remarks will be interpreted in a common framework, taking into account the deficiencies of the above-described results, and directions of future researches will be presented.

About the methods of the thesis

In this research project, both qualitative and quantitative methods were used. In the first study, built on Márta Fülöp’s Hungarian businessmen, interviews that pointed the importance of the examination of the dimension of morality and immorality regarding their concept of competition were analyzed. After this study, the focus of the research turned toward related social representations of the future generation of businessmen i.e. business and economics students were investigated. Furthermore, in order to find culture specific characteristics, Hungarian students’ results were compared to French students’ responses. In the second step, I followed Abric’s (1994b) ideas concerning associative technique taken as an appropriate starting method in order to reveal potential differences between social representations of different social objects. Therefore, in the second step, Vergès’ (1992, 1994) associative method was used in order to explore Hungarian and French economics students’ social representation of competition, fraud and corruption. During this analysis, the appearance of morality related terms in the social representation of competition was in the focus. Furthermore, from the other side, we were interested in how frequently competition-related terms in the social representation of fraud and corruption appear. In the first associative study – contrasting to the results of Hungarian businessmen – the social representation of competition of both Hungarian and French students contained only insignificant quantity of morality-related terms. Regarding the social representation of fraud and corruption, the results are congruent: in each sample these social representations practically did not include terms referring to competition. However, it was expected that among Hungarians stronger links will
be found between such immorality-related issues as fraud and corruption and competition, than among French students. From methodological perspectives, this result can be the consequence of the difference between associative tasks and interview methods. In the case of interviews, maybe businessmen could talk about the immoral side of competition in a more deliberated way; while, in the associative study it might not have been the case. According to me, when a person gives spontaneously associations to a word such as competition, he/she can be deliberated. In this case, there is no self-reference; furthermore, in this study respondents wrote their associations, and they did not give their responses in a face-to-face situation like in the case of interviews. Therefore, in the case of associative study, social desirability bias could be expected to be lower, than in the case of the interview study in which respondents talked about immorality in an exchange with the interviewer. Furthermore, it is also possible that during the interview, respondents have much more space and possibilities to talk about diverse topics, whereas in an associative setting they could associate only 5 words referring to a given-topic. Such constraints could reduce the possibility that respondents mention morality-related topics in associative studies in comparison with interview methods. This critic can be true; however, it cannot explain entirely why only two Hungarian students (2%) associated corruption in the social representation of competition, while 31.8% of businessmen mentioned it in the interviews. Furthermore, the critic may arise: associations refer to a very general form of social representations, while in the interviews the questions can restrain the response set; thence, in this case, responses can grasp social representations in a more specific manner. Associations refer to a social representation in quite a broad manner; however, in the interviews immorality-related issues topics emerged irrespectively to the interview questions. In the interviews, there was no explicit question referring to the moral dimension; therefore, we can suppose that the dimension of morality-immorality arose in both cases spontaneously and it cannot be said that only in the case of associations it did not appear because this method can explore only a broad level the social representations.

Another explanation of these differences between the interviews and associative studies concerns the context in which competition was exposed to the businessmen and to students. In the first case, businessmen interpreted competition within the context of their economic life. However, in the case of the students and the associative study competition was exposed in a more context independent manner. This possible explanation can be refused taking into consideration the following points. (1) Immorality of competition appeared not only within business context, it shows up concerning previous school experiences or
respondents talk about it as a phenomenon that pervades the public moral. (2) In several cases businessmen – who were asked about their opinion concerning competition in general in the first question of the interview – started the interview with the distinction between moral and immoral competition. At the beginning of the interview, with such a context-independent question we can expect content-independency. (3) Questions regarding the socialization of competition, gender differences, aggression and even on cooperation called the dimension of morality also. On the other hand, for businessmen the everyday experiences regarding competition very probably concern mainly the economic field. This specific area of competition is perceived as quite strongly linked to immorality for students and teachers also, who are outsiders.

In the following step, a confirmatory study was carried out. In this case, students chose the most typical words from a 20-word list that contained both Hungarians and French students’ most central terms concerning competition and fraud (Rouquette & Flament, 2003). In this case, the concept of corruption was not analysed (see below the reasons). Furthermore, in the same questionnaire, in a subsequent task, the main relationships between the most important elements of both Hungarian and French students were drawn up. In this case, relationships were measured between the most prominent 12 terms derived from the first study. Here, due to the difference between the most prominent terms that French and Hungarian students associated concerning both competition and fraud Hungarian and French, terms were not mixed up. In this way it was possible to reveal the structure of each representation; however, the comparison between the structure of two representations was harder. Following this study, on the basis of the visible and significant differences between the appearances of academic cheating, a questionnaire study was carried out in order to explore this topic in details. The result of this study confirmed the expectations based on the social representations of fraud concerning differences between Hungarian and French students. Finally, in an experiment, the goal was the measurement of how previously explored differences in the social representation of competition, fraud e.g. academic cheating of Hungarian and French economics students, appear at the behavioral level. In the following, we will discuss these topics from the perspective of social representations, competition and academic cheating referring to three of the four levels that Doise (1984) distinguished.
Conclusions from the perspective of social representations

As we have seen in the introduction, long lasting oppositions exist between collectivistic and individual-focused psychology. Since Wundt (Farr, 1984; Pléh, 2000), this gap derives from a methodological and a theoretical dualism. In social psychology, Moscovici aimed at bridging this gap with the creation of the theory of social representations. According to this theory, social psychological phenomena and processes can be interpreted only in the context of historical, cultural and macro-societal context. Therefore, this theory is opposed to the methodological individualism of social cognition (Moscovici, 1984/2002). Doise (1984) provided further guidelines regarding different levels of analysis within the framework of social representations. In this distinction, the most proximal level refers to intra-individual processes; the second level reflects on inter-individual; the third level concerns intergroup processes, while the fourth one operates at the ideological level. As we have seen through the example of Kirchler (2007), these levels can be detailed if one concentrates on a given-object such as tax behavior. This latest interpretation uses the theory of social representations as an integrative framework that makes possible the integration of previous researches that derives from different scientific traditions.

In this dissertation; following these ideas, and taking into account the levels that can influence behavior, previous researches regarding competition and academic cheating were gathered. However, due to our research questions, intergroup processes got less emphasis. Furthermore, here the ideological level mainly referred to cultural differences concerning Hungarian and French students. Beyond these levels of interpretation, the goal was to take into consideration the main situational factors in order to approach the behavioral manifestation of the previously explored social representation of French and Hungarian students.

These steps were necessary in order to follow one of Moscovici’s guiding principles regarding the methods involved in the study of social representations. He suggested the use of observation, but without completely losing the advantages of the experiments: “And what we require of observation is that it will preserve some qualities of experiment while freeing us from its limitations.” (Moscovici, 1984, pp 67). Due to such ideas, I tried to figure out an observable situation in which social representations, regarding competition and academic cheating, can appear in the most possible natural context. This was one of the reasons why I did not use game-theory based, more artificial, research methods, in which the observable behavioral aspects are more constrained and less natural.
Furthermore, I intended to take into account Farr’s (1984) critics regarding laboratory studies within the framework of social representations. According to him, in a well-controlled laboratory context, social representations cannot be examined in an efficient way, because the experimental control, the experimental situation and the experimenter him- or herself create such an atmosphere which fundamentally differs from a real-life situation. Therefore, according to him, similarly to Moscovici’s first research (1961/2008), qualitative data collection can more efficiently measure the natural presence of social representations, in comparison with experimental research settings.

Therefore, not neglecting Farr’s warnings (1984), but also taking into consideration Moscovici’s above-mentioned methodological guiding principle, I carried out an experimental research in which the primary aim was the creation of an experiment in which the experimental situation, the tense experimental control and the personality of experimenter would not suppress the natural appearance of social representation of competition and fraud of French and Hungarian students.

In the design of the experiment, the debate around Valsiner’s (2003a) enablement theory also helped me in creating my experimental design. Especially, Bertacco’s (2003) comment was very useful; he suggested that, prior to the examination of behavioral manifestation, it is important to explore the possible social representations that can have an impact on the behavior. On the basis of these studies, it is possible to see the main characteristics of different groups regarding a given social object. And later, in the second step, after the qualitative analysis, we can create a decision-making-task in which these explanatory categories can appear; therefore, in this way, due to the qualitative researches, it is possible to state predictions concerning the dominant behavior among the members of the examined different groups. In the following, we will refer to the results of the studies that were carried out within the framework of this thesis taking into consideration these guidelines.

In order to make such predictions, several preliminary studies were carried out in which French and Hungarian students’ social representations of competition and fraud were explored. Firstly, French and Hungarian students in economy produced associations to the target words of competition, fraud and corruption. These target words were chosen on the basis of a previous study carried out with Márta Fülöp among Hungarian businessmen. The results of this initial study showed that, in the field of fraud, the topic of academic cheating appeared as a distinctive dimension regarding Hungarian and French students. This topic seemed to be appropriate because of two important aspects: academic cheating is close to the everyday life of the examined-group, and it referred to differences between Hungarian and
French students’ social representations of fraud. A further associative study confirmed these results, and a third study, a quantitative study, confirmed that French students differ from Hungarians regarding their attitudes, feelings and self-reported behaviors. Therefore, it was decided to use this field in order to compare behavioral appearance of the social representation of fraud.

Furthermore, the associative studies also showed that there are differences between Hungarian and French students’ social representation of competition. While Hungarians were more result-oriented, concentrating on success and victory, their French peers’ representation showed more process-orientation, in which self-achievement and challenges played a more important role, than among Hungarians. Taking into account such results, we could expect that social representations of Hungarians could orient them to be more result-oriented in a competitive situation, than French students who could be more concerned by self-achievement and the challenge deriving from competition.

Beyond these studies that render possible previous predictions due to Abric’s (1994b) warnings regarding situational factors and external circumstances that can restrain practices and that have to be taken into consideration. Therefore, in order to create an appropriate experiment, I needed to figure out, and count on, the main situational variables that can have such an influence on the behavioral appearance of social representation of competition and fraud among the examined French and Hungarian students. It was the reason why personality and situational factors were described in a relatively more detailed manner in the theoretical part. And, it was the reason why open- and closed-competition, as well as acquaintanceship between participants and the level of surveillance were taken into account as independent variables in the experiment. Furthermore, it was the reason why expected punishments and perceived norms were examined in the questionnaire. However, as we have seen in the theoretical part, there are several other important variables; nevertheless, in this research project only the above mentioned factors were taken into consideration.

Here, I would like to refer to the results of the experiment from the perspective of the theory of social representations. The results showed that, contrary to our expectations, there was a tendency regarding the higher number of French students cheating if we took into consideration both individual and collaborative cheating. Furthermore, more French students cheated in a collaborative manner than their Hungarian peers; however, there was no difference regarding the rate of individual cheating. These results did not meet our expectations based on the previously explored social representations. Here, I would like to present some possible reasons to explain why we obtained these unexpected results.
In order to answer this question, firstly it can be useful to look for possible reasons regarding the experimental design and the situational variables. First of all, students cheated mainly in a collaborative manner, while individual cheating was less prevalent. Therefore, it is very possible that there were problems with the experimental design that provided fewer possibilities to cheat individually than collaboratively. With the online questionnaire for which a Google window was open, I intended to give a possibility of cheating; however, it was maybe not visible enough, or not very explicit. Furthermore, the screens of the computers were arranged in such a way that the participants were hardly able to see what others were doing on their screens. In addition, the experimenter spent the whole time in a direction in which he could not see the screens of the students during the experiment. Therefore, it was relatively secured to cheat in this way. Moreover, the Google at the bottom of the screen was not very salient but not invisible either. Beyond these points, Google is a tool that most students use and know well, generally, we can say that they have everyday experiences with it; therefore, when I planned the experiment, it seemed to be an evident tool in order to find responses to the quiz. Therefore, with the use of Google, I intended to introduce a flexible and secured cheating instrument, but I did not want to overexpose it and overemphasize the fact that a Google window was open on the screen. However, obviously this solution did not work in the expected way. Students who wanted to obtain information preferred using collaborative forms of cheating rather than browsing answers for the questions. After the experiment, when participants finished the task, I asked them whether they used Google or not; some of them told me that they had not even seen that Google was available, or they even did not think about it, while another part of the student said that they did not want to cheat. The response of the third part of participants was more interesting, as they stated that they did not want to cheat because in this way cheating is more tangible, therefore it is more serious, while if they discussed with each other it would be less tangible, therefore, it is more acceptable. The lesson from this perspective is that it is important to provide an individual cheating form which is more visible for the respondents.

In the case of the present experiment, losers only lost the competition, but it had no tangible negative consequence regarding their future life. It is absolutely not the case if they fail an exam and they cannot obtain the sufficient and expected credits. I think that a memory stick, as a reward, was not comparable to the credit that students could obtain for a course. Taking into consideration the fact that the value of a memory stick is approximately 10€, while a student has to work 20-40 hours in order to obtain a course could be important. If a Hungarian student works 20-40 hours, he/she can buy 3-6 memory sticks, while a French
student can buy 16-32 similar rewards. Beyond these values, it is important to take into account that studying for an exam or cheating during an exam can fit well to the long time perspective of students, who would like to earn his/her living thanks to the obtained diploma. In sum, if we would like to provide similar stake in an experimental situation, it is important to provide much higher value rewards (which we initially intended, but could not be realized because of lack of finances).

The third important factor reflects on punishments. In this experiment, I did not intend to warn students of potential punishments in case of cheating. As we have seen previously in high-risk condition there was only one group in which students attempted to cheat. On the basis of the first pretests, I was afraid that if students were warned about potential punishments, taking into account the small amount rewards as benefits, the occurrence of cheating would be reduced to zero. In an experiment, in which the possible benefits are higher, for example a digital camera or an Iphone, the use of punishments probably would be more appropriate.

The fourth circumstance refers to the competitive situation. Open competitive situation was closer to the everyday experience of Hungarian students, as in the Hungarian educational system there are only a few competitive examinations. More recently, there is a competition after the first three BA years in order to obtain an MA position. However, 2009 was the first year when this competition occurred. Therefore, at the time of our study, the higher-educational system was fundamentally non-competitive in Hungary, even if it is now changing. However, in the French system there is a long tradition of competitive examinations (concours). Furthermore, in the French case, open-competitive situations are similar to general exams. Therefore, in France students are more used to both types of competition in their educational system, while among Hungarians mainly open-competitive situations were present during their studies. This difference may contribute to the fact that Hungarians practically did not cheat at all during closed-competitive situations. Maybe they are not used to such circumstances, while their French peers have more experience in this field.

The following point refers to the difference between high-risk and low-risk conditions. Cheating was close to zero in high-risk condition, but in real life exam circumstances generally the risk is quite high. Results of the cheating questionnaire regarding the fourth study refers to such conditions in which cheating was evidently not obvious, the stake was high and the risk of detection was also high. In order to examine the behavioral aspects of social representations, it would be important to create an experimental situation in which, in spite of the high-risk of detection, students would cheat similarly as in real exam situations.
Beyond these deficiencies, we have to take into account the fact that several situational variables were identical in both cases. The experimenter was the same person in all of the experimental situations and his status was similar in both cases. He behaved very similarly when he tried to find participants, when he explained the tasks, regarding his comments on the task with different figures, etc. Only one difference can be taken into account, in the case of the French context, he had the role of being a foreign Ph.D student, which was not identical in Hungary where he did not have this role.

Among these variables, according to me, the most important one was the stake. The reward that they could win was not “serious” enough. If the stake had been higher, students would have taken much more seriously the experiment itself, the competition and very probably they would have cheated more both in both collaborative and individual ways. Furthermore, in this case, we could have been able to prove more efficiently that Hungarians are more result-oriented than their French peers, who, in this study, care less of the result and who are more interested in the self-achievement and challenge.

However, Hungarians’ result-orientation appeared in the present experiment, as well. Hungarians cheated more in a collaborative way in the open-competition condition than in the closed-competition condition. However, we have not seen such differences in the case of French students. Therefore, French students cheated in a collaborative manner even if there was only one winner of the competition and there were scarce resources, while Hungarians practically did not cheat in a collaborative manner if they competed for scarce resources. Therefore, Hungarians, in closed-competitive conditions, did not help each other, which can imply that they strove to win the memory stick even if participants knew each other (there was no significant correlation among Hungarians regarding acquaintanceship and cheating behavior).

**Conclusions regarding competition**

In the theoretical part, on the basis of Fülöp’s (2008a) work, firstly we took into account studies regarding competition prior to Deutsch’s researches, then works influenced by Deutsch’s conceptualization of competition were summarized, finally more recent empirical results and theoretical assumptions were presented after the paradigm change in the research of competition (Fülöp, 2008a). Furthermore, we made some assumptions regarding possible relationships between competition and unfair practices in four levels. Firstly, intrapersonal issues were taken into consideration. As we have seen in the results of the experimental study,
those students who cheated in a collaborative manner had significantly less self-developmental attitudes toward competition, than those who did not cheat. These results suggest that students who are more self-developmental oriented are less likely to cheat in an open- or a closed-competition in a collaborative manner than students who are less self-developmental competitive. However, if individual cheating was taken into consideration, there was no significant difference between cheaters and non-cheaters regarding their self-developmental attitudes toward competition. Furthermore, difference between collaborative cheaters appeared only in the case of Hungarian students. In the case of the French sample, there was no significant difference between cheaters and non-cheaters regarding self-developmental competitive attitudes.

These results suggest that, in the case of Hungarians and regarding their collaborative cheating attitudes toward self-developmental, competition has to be taken into account in further studies. Moreover, this result can point out the importance of not dealing with competition as a homogenous phenomenon that is itself “the single most toxic ingredient in a classroom” (Anderman & Murdock, 2007, introduction pp. XIII). However, it is important to distinguish different facets of it from the beginning of personal attitudes toward competition in order to profit from its advantages, and avoid its disadvantages.

At the situational level, in the experiment, the main controlled variable referred to the open- and closed-competitive conditions. Here, we found that more Hungarian students cheated in open-competitive conditions than in closed-competitive situations. It was especially true regarding collaborative cheating, whereas in the case of individual cheating there was no difference between the two conditions. However, among French students there was no difference between the number of persons who cheated in open- and closed-competitive situations neither concerning individual or collaborative cheating. The results of Hungarians are opposed to the notions regarding the negative and harmful characteristics of competition. As we can see, in the case of closed-competitive situations, which are close to the classically conceptualized competitive situation with contriently interdependent goals (Deutsch, 1949a) in which the students were exposed, a lower level of cheating occurred. However, at this point, it is important to keep in mind that collaborative cheating is fundamentally a cooperative act. In a competitive situation, in which only one person can win the reward while the others cannot win it, cooperative behavior weakens the chance of winning the reward. However, in open-competition, in which resources are unlimited, cooperative behavior is a good strategy because in this way, due to mutual aid, all of the participants can win the reward with a higher probability. As we have seen in this experiment,
collaborative cheating was more prevalent than individual cheating. The consequences of these results, at least regarding Hungarians, can be useful – as we have seen in such situations in which individual forms of cheating are less available, closed-competition for scarce resources can reduce the level of academic dishonesty, because in this case, students (at least Hungarians) cheat less in a collaborative manner. Furthermore, in at least the present experimental situation, closed-competition did not raise the occurrence of individual cheating. Therefore, at least among Hungarians and in cases in which individual forms of cheating are more constrained, closed-competition can lead to a lower cheating rate than in open-competition in which resources are unlimited and each participant can win.

Regarding the cultural level, as we have seen based on Fülöp et al. (Fülöp, 1999b; Fülöp, 2002c; Fülöp & Berkics, 2003; Fülöp et al. 2007) previous studies, Hungarian students’ concept of competition referred to different areas such as economy, money, politics, jobs and sheer survival. These areas are more frequently far from their everyday practices as competition in the school context. Furthermore, they had generally positive attitudes towards competition, mainly in interpersonal competitions; however, according to them, competition plays a very important negative role in society. Furthermore, they talked more about immorality as a negative consequence of competition, than their American and Japanese peers. Furthermore, according to their perception, Hungarians want to win at any cost and by all means, the end justifying the means. However, it does not only appear in their perception; one third of them said that winning is everything, and according to half of them, winning is important and, as a consequence of competition, they can use unfair tools. Moreover, beyond their result-orientation, they concentrate mainly on specific goals and less on learning and improvement. As we have seen, their teachers have similar views on competition regarding result-orientation and the presence of immorality in the process of competition (Fülöp et al. 2001; Fülöp et al. 2004; Fülöp, 2008b; Fülöp, 2009). Furthermore, on the basis of observational data, they indirectly encouraged unfair competition between students in the way that rule-breakers were not punished in competitive tasks. Therefore, their rule-observing, rule-keeping and monitoring function does not work effectively during primary school classes.

As we have seen in the first analysis carried out with Marta Fülöp, thanks to the analysis of the interviews of businessmen, we found that immorality appears in different forms. Even though there was no explicit question regarding immorality, it appeared in almost 90% of the interviews. In general, businessmen talked about the competitive business life in which immoral strategies and unfair practices appear from the part of their competitor or more
broadly. However, more specific forms of dishonesty were present, such as corruption and tax evasion. They frequently referred to the negative and anti-competitive consequences of competitors’ relationship with political authorities. Several persons complained about the aggressive and cruel strategies that they experienced in the Hungarian market. As we have seen, from the explanation of the businessmen, they see the main causes of the immorality in the deficiency of regulations and the legacy of systemic change and socialism. However, from the other side, half of them mentioned the importance of the morality or morality as their own competitive strategy. Despite the centrality of immorality in their concept of competition, the relatively high presence of the importance of morality in competition can be a good resource in order to make clearer the Hungarian business life. We took into account the fact that several societal and historical causes can contribute to the high presence of moral dimension of competition of interviewees. Probably, the most important of these factors are rooted in the previous socialist system and the systemic change.

As Hankiss (1982) showed, anomie-related issues appeared in the Hungarian society since the fifties and they have today a significant impact (Andorka, 1994); this is especially true of its rule-avoidance aspects (TÁRKI, MHP, on the basis of different years Andorka, 1996; Spéder, Paksi, Elekes, 1998; TÁRKI Household monitor, 1998; TÁRKI omnibus 2001/7, cited by Tóth, 2005). Furthermore, top-workers from the fifties were rarely rewarded in a tangible manner at the individual level (Horváth, 2007; Horváth, Majtényi & Tóth, 1998). After the end of the sixties, the standard of living rose, people could afford to acquire more prestige goods, which induced social comparative processes regarding their properties (Hankiss, 1989; Nagy, 1997). However, the accomplishment of such motivations was possible due to supplementary earnings sometimes coming from the semi-legal and even illegal second economy. After the systemic change these habits appeared in a mixed way, such as working hard, on the thin red line of legality (Kolosi & Sági, 1996). This can be one of the reasons why hard work and meritocracy-related issues in the field of honest competition and the presence of perceived dishonesty was mentioned relatively frequently by the concerned sample.

Regarding negative views towards connections with the political sphere, they can be explained by taking into account the fact that, in the socialist system, political loyalty was a beneficial way towards keeping positions and good reputation among both Stakhanovist workers in the 1950’s and then technocrats (Horváth, Majtényi & Tóth, 1998; Konrád & Szelényi, 1989). In such circumstances, good relationship with political authorities firstly produced more important social capital (Bourdieu, 1977), and secondly it favored selective
processes based on both loyalty and competency (Konrád & Szelényi, 1989) – where loyalty had more emphasis. On the basis of the results, today, twice as many businessmen see the negative side of connections rather than its neutral or positive traits. Therefore, very probably, the business life carries this non-merit based and counter-productively perceived aspects of business competition.

We also have to talk about the hard work in the shadow economy of the socialist system, which constitutes a pillar of the merit-based competition. The appearance of widespread second economy during decades (Gábor & Galasi, 1981; Huszár, 1982) led, on the one hand, to the valorization of hard work (Héthy & Makó, 1971) in order to acquire better living standard and buying prestige goods (Nagy, 1998), while, on the other hand, it resulted in habits of short time perspective and living more or less in illegality. Participants of the second economy, and the technocrats, have opaque rights, but their activity was perceived as a permitted/allowed behavior by the authorities (Hankiss, 1989). In this context, both hard work and illegality were present simultaneously during decades.

After the systemic change in which the “manager assistants” gained good positions (Kolosi & Sági, 1996), several questions emerged regarding the role of connections, dishonesty and merit based competition. On the basis of the results obtained here, we note that Hungarian businessmen complain and talk about the dishonest nature of competition, corruption, negative impact of connections and aggression in the business sphere. In the following studies, we were interested in understanding how the next generation of businessmen in France and Hungary conceptualize competition. Furthermore, we put an emphasis on the investigation of the overlap between the social representation of competition and fraud.

In the second step of the analysis, we were interested in the exploration of the social representation of competition, fraud and corruption of French and Hungarian students majoring in economy. In the case of competition, there were differences between students regarding the aim of competition and in terms of process orientation. While Hungarian participants were more result-oriented concerning competition, their French peers were more process-oriented, and they emphasized more the role of challenges and self-achievement. However, contrary to our expectations, we did not find traces of immorality in the social representation of competition, neither among Hungarians nor among French students. Furthermore, French students’ social representation was more coherent than the one we identified among Hungarian participants. These results partly fit the previous expectations, since Hungarians’ result-orientation was previously measured by Fülöp et al. (Fülöp &
Berkics, 2003; Fülöp et al. 2007) and other studies found that students complain about the presence of immorality as a negative consequence of competition (Fülöp, 1999; Fülöp, 2002c; Fülöp et al. 2007).

The results of the following confirmatory study reinforced previous expectations: concerning competition, Hungarians chose more frequently goal-related topics than their French peers. However, French students chose more frequently words that referred to the process of competition and self-achievement. Regarding the social representation of fraud, beyond other differences, academic cheating appeared more frequently in the case of Hungarians than among French students.

Furthermore, in the same questionnaire, in a subsequent task, the main relationships between the most important elements of both Hungarian and French students were drawn up. Regarding Hungarian results, this analysis proved that their representation is more fragmented, than their French peers’ social representation. In this representation there were four main groups of associations. The first was referring to sports; the second contained the element of goal which was connected to the concept of development by one third of the respondents. The third main group of spontaneous associations contained combat and strife, while the forth group contained six elements that can be summarized as being under the umbrella of the results of competition. This fragmentation was not the characteristic of the French group, as for them, two main groups of spontaneous associations were revealed in the shared representation. The first one was organized around the concept of contest, whereas the other was built around the idea of competition related to sports. The contest related group contained elements that refer to challenges and the competitive examinations, while in the case of sport, concepts regarding the goal and the process of competition took place with the predominance of the elements from the latest field. Therefore, these maps suggest that Hungarians’ social representation is not only more fragmented and result-oriented than the French one, but in the social representation of French students’ terms regarding the result of competition and the process of competition are more intertwined.

Finally, as we mentioned, the experiment heightened result-orientation of Hungarian students which can be detected on the basis of their decisions concerning the lack of collaborative cheating in closed competitive condition. Also, as we have seen, this was not the case among French students who helped each other irrespectively of the open- and closed-nature of competition.
Conclusions regarding fraud and academic cheating

As we have seen, the topic of academic cheating was not initially part of this dissertation. When it was decided to explore French and Hungarian students’ social representation of competition, fraud and corruption, we did not expect to find such differences regarding this topic in the first associative study. Furthermore, as it was described in the conclusion regarding social representations, we looked for an aspect in which immoral aspects of competition can be presented in the everyday life of the examined sample. We found significant differences in the case of academic cheating, and it seemed to be an optimal field in which behavioral aspects of social representations can be examined. Furthermore, on the basis of the responses of the first associative study, corruption seemed to be a topic which is quite far from students’ everyday experiences. In spite of the high probability that, at least some Hungarian students will encounter some kinds of corruptive practices in the future (on the basis of the results of the interviews with businessmen), they had in principle no primary experience in this field. Therefore, it would have been hard to build on further experimental research if we had followed this line of the research. In the following section, we will present a summary of results referring to the measured situational and cultural levels regarding fraud and academic cheating.

Individual factors were not measured in the case of academic cheating, therefore we will start with the results regarding cheating from the situational level. In the fourth study, Hungarian and French economics and business students were surveyed via a questionnaire. The culture independent results of this study showed that there is quite a strong positive correlation between the attitudes toward cheating and the frequency of self-reported cheating occurrence of ten exams; this result was in accordance with previous research findings (Carpenter, Harding, Finelli & Montgomery, 2006; Jordan, 2001; Sherrill, Salisbury, Horowitz & Friedman, 1971; Whitley, 1998). Regarding positive feelings after a successful cheating and attitudes toward cheating, we found a positive relationship, which was contrary to our expectations because we supposed that post-transgressional guilt would be perceived as a negative feeling even if it was previously shown to be in a positive relationship with cheating behavior (DePalma, Madey and Bornschein, 1995, pp. 8). However, in this case within the category of negative feelings, post-transgressional guilt was not distinct from other negative feelings. Furthermore, the grade point average was not in relationship with attitudes towards cheating, as the grade point average of cheaters and non-cheaters did not differ from each other. Similar results were also found regarding grade point average in our experimental
setting, in which we did not find difference between cheaters and non-cheaters concerning their grade point average. Furthermore, expected punishments appeared to be the second most important variable that would predict attitudes towards academic cheating. The higher the expected punishment was, the less acceptable cheating was evaluated by the students. Finally, we did not find any relationship between the hours student spend with extracurricular activities and attitudes toward cheating or self-reported academic cheating. Nevertheless, in sum, in the case of the questionnaire, a significant part of the results was in agreement with the findings of previous studies.

Regarding the experiment, the risk of detection, previous acquaintanceship between participants were examined as situational variables. The risk of detection was predicted to be in an inverse relationship with the occurrence of cheating behavior. In the present experiment, only one cheating occurred during high-risk condition, while all of the other cheating happened in low-risk condition, i.e. when the experimenter was not present. Therefore, in this case, very probably due to our experimental settings, we cannot interpret these results in a conclusive manner. More refined experimental condition would be required in which higher cheating can appear more frequently in high-risk condition. However, our results are in general in agreement with previous experiments that demonstrated an inverse relationship between risk of detection and the occurrence of cheating (Whitley, 1998; Concoran & Rotter, 1987; Covey, Saladin & Killen, 1989; Heisler, 1974; Leming, 1978).

The other measured variable concerned the relationship between the occurrence of cheating and the number of persons who previously knew each other. Taking into account the whole sample, significant relationship was measured between these two variables. Therefore, this result is in accordance with Houston (1986) results which found similar relationships. Taking into account this relationship, and especially its importance regarding the French sample, it would be very useful to further examine this topic due to the relative lack of literature referring to this issue.

Cultural and ideological levels’ differences were more numerous than situational variables. In the first study, based on face to face interviews, different frauds appeared in the context of competition. Therefore, I found useful to use this word as a stimulus in the first associative study. The most interesting results referred to the topic of academic cheating which was the most frequent association among Hungarian boys, but which was practically missing from the social representation of fraud for the French students. Beyond academic dishonesty, Hungarian students mentioned words from diverse fields as economy, politics, sports, games and education, while French students mentioned words mainly referring to
economy and related issues, as well as general terms which are related to dishonesty. Beyond these dissimilarities between the two groups, there were differences regarding the cognitive organization: similarly to the social representation of competition, Hungarian participants had a less coherent social representation of fraud than their French peers; while French students’ social representation of fraud contained a stable central core, it was not true for their Hungarian peers. Furthermore, similarly to the results toward competition, when students were asked to create relationships between the referring concepts, as for the social representation of competition, the representation of Hungarians was more fragmented than their French peers. In the representation, there was a group referring to cheating in sports and in games, cheating in education and frauds in the political and in the economic life. In the case of French students, the representation was divided into two main parts, in which the larger part contained elements referring to frauds concerning economy and money, the smaller one included terms that express the lack of dishonesty in general. Probably the weaker cognitive organization and the fragmented characteristics of the representations of Hungarian youngsters reflect, on the one hand, the lower consensus regarding what fraud means, while, on the other hand, the more diverse fields in which they perceive fraud is present.

In the forth study, French and Hungarian students attitudes towards cheating, self-reported cheating behavior, their perceived norms toward cheating and the expression of their feelings after successful cheating were compared. The results showed that Hungarians find more acceptable cheating in the examined 14 dimensions, their self-reported cheating rate is higher, they see that more students cheat around them and they have more positive feelings after cheating, than French students do. Based both on the literature review and on the meta-analysis, we expected these differences prior to the analysis (Andorka, 1994; Bernardi et al., 2004; Grimes et al., 2004; House et al. 2004; Hrabak et al., 2004; Magnus et al., 2002; McCabe et al., 2008; Poltorak, 1995; Rawwas et al., 2004; Salter et al., 2001; Spéder, Paksi, Elekes, 1998; TÁRKI Household monitor, 1998; TÁRKI omnibus 2001/7, cited by Tóth, 2005). Taking into account the cultural dishonesty bias hypothesis, it was hypothesized that the above-mentioned self-report based differences between Hungarian and French students would be reduced in the case of no self-reports, but if their behavior will be observed.

Furthermore, potential variables were analyzed that could have an impact on students’ attitudes and cheating behavior; in the case of French students, we found that positive feelings after cheating predicts their cheating behavior. However, among Hungarians, acceptance of cheating predicted self-reported cheating behavior. While, among French students we have not found a significant predictor of self-reported academic dishonesty, among Hungarian
students, attitudes (acceptance of cheating) had a significant impact on self-reported cheating behavior.

In the experiment, contrary to our hypothesis, the number of French students who cheated, whether in an individual or in a collaborative manner, tended to be higher than the number of Hungarians; however, French students cheated more in a collaborative manner than their Hungarian peers did. We described above some of the reasons why we did not find the expected results.

**Final concluding remarks regarding future researches**

In our experiment, we could not completely confirm that social representations can be examined in a laboratory context, as Farr’s (1984) suggested with the idea of a “stronger sense of social psychology”. However, this failure does not prove that it is an impossible enterprise. Further efforts, regarding the improvement of the social context that should be closer to the natural exam circumstances and the elimination of disturbing, irrelevant situational variables, should contribute to the success of future experimental studies in this field.

Finally, for further researches, it would be fruitful to examine in a detailed manner, the impact of different personality-based attitudes towards competition on academic dishonesty. Moreover, it would be interesting also to focus on the intensity of the competition itself; and to measure how more valuable rewards could influence the cheating behavior. Generally, it would be important to examine constructive aspects of competition and the circumstances in which competition becomes destructive. Beyond the examination of such circumstances, it would be interesting to see the influence of constructive and destructive competition on academic dishonesty. Furthermore, future researches on collaborative forms of academic cheating could also contribute to the literature on academic dishonesty. Regarding our assumptions, in the field of academic dishonesty, it would be fruitful to carry out cross-cultural studies in which not only self-reports, but also behavior of students could be measured. Furthermore, future researches would be important in order to examine the double strategy hypothesis regarding the relationship between the importance of work and self-reported academic cheating. Finally, one of the most interesting research refers to the longitudinal studies in which the relationship between school cheating and work-related malpractices could be declared in a more detailed manner.
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