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Victims and Dialogue Processes in Conflict and in Restorative Justice

The Big Two Dimensions of Social Cognition in Interpersonal Conflict

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1 Introduction

The two studies presented in this dissertation are responses to a need of theory-driven research in real-life context and they reflect my commitment to this mission. As a researcher of conflict and a practitioner of restorative justice I see the benefits as well as the responsibility of the close cooperation between theorists, researchers and practitioners. My investigations are focused in the realm of applied social psychology of interpersonal conflict.

1.1 The structure of the dissertation

The theoretical background consists of three parts. The first part summarizes the story of the so-called Big Two theory (Paulhus and Trapnell, 2008; Abele and Bruckmüller, 2013) that identifies universal dimensions of social cognition. I[1] present the evolutionary, cognitive and motivational frameworks that explain the robustness of the two content dimensions of communion and agency. In addition, concrete theories and ample empiric evidence are presented that derive from the Big Two theory with the aim to understand consequent patterns of social perception and concomitant emotions. In this section the notion of conflict is implicitly present when discussing implications of moral vs. immoral behaviours, moral emotions, competitive vs. cooperative settings and contrastive vs. assimilative social comparison.

The second part focuses explicitly on the conceptualization of (interpersonal) conflict in social psychology with a special emphasis on the socio-emotional route to reconciliation (Nadler, 2002). Within that framework the Needs-based Model of Reconciliation (Shnabel and Nadler, 2008) is presented in detail with implications on application and communication. Connections with the Big Two theory are also reviewed.

The third part focuses on the applied field of conflict reconciliation of Restorative Justice. Definitions, principles, methodology, communication and the legal context are detailed. Restorative Justice is included for two reasons. Firstly, it gives the context of the second

[1] In language usage I followed the guidelines of the Publication Manual of the American Psychological Association (2009) that suggests the use of the pronoun 'I' (as opposed to the editorial we) for the sake of clarity and the use of active voice when the work has one sole author (p.69).

research. Secondly, the work has an important focus on discussing implications of the theoretical frameworks and empiric results for the applied conflict reconciliation field.

The third part presents Research 1. The study was inspired by the Big Two theory and the Needs-based Model of Reconciliation. The goals of the study included the investigation of social perceptions, emotions, attributions, interpersonal needs and reconciliatory attitudes in the context of interpersonal conflict. The research involved more than four hundred college students as participants and the data collection exceeded two years. The applied methodology involved a novel use of the prisoners' dilemma paradigm. The quasi-experimental research design allowed the results to be ecologically more valid. As a general conclusion, it can be stated that the results were in accordance with the postulates derived from the theories. Conclusions, limitations and implications are discussed.

The fourth part includes Research 2, a qualitative quasi field-study also inspired by the Big Two theory and the needs-based model. It aimed to explore the relevance of these frameworks in a real-life restorative context. Recordings of two peace-making circles were content-analysed based on an a priori developed categorization scheme that defined constructive and destructive expressions as well as expressions of conflict-related needs. Code category counts as quantitative results were presented together with citations as illustrations. The study aimed to present real-life examples of verbal expressions of the Big Two category contents as well as of the need and message categories of the NBMR delivered in an active conflict. Implications regarding constructive and destructive dialouges and regarding clinical praxis were discussed. Reflections on the postulated asymmetry regarding the verbalizability of agentic and morality needs in light of the results were also presented.

The work finishes with a general discussion section proposing new future research directions and implications for the praxis of restorative justice.

2 Theoretical background

2.1 Universal dimensions of social cognition

2.1.1 The Big Two theory of social cognition

Robust evidence of more than seven decade long research as well as recent theorization support the universality of the two-dimensional nature of human social cognition referred to as the Big Two (Paulhus and Trapnell, 2008; Abele and Bruckmüller, 2013). Editors of the recently published book summarizing research in the field talk about the rediscovery of the role of content (as opposed to process) in psychology (Abele and Wojciszke, 2019). Content related to agency and communion (Bakan, 1966) "are useful to describe motivational forces of behaviour, for analysing the functional meaning of social perception, and for researching the content dimensions of personality, self-concept and values" (Abele and Wojciszke, 2019 p. 2). The term Big Two was first used by personality psychologists Delroy Paulhus and Paul Trapnell (2008) in their paper where they applied an agency-communion framework to review existing literature on self-presentation. In fact, as the overview will also demonstrate, as opposed to presenting a novel discovery, the Big Two terminology reflects a systematic review and integration of decades of research as a result of a new perspective while giving birth to a new field of theorizing and investigation.

Depending on the context authors use slightly different terminology adverting to the first dimension as warmth (Asch, 1946; Wiggins, 1991; Fiske, Cuddy, Glick, 2007; Costa and McCrae, 2011), love, affiliation, communion or morality (Wojciszke 1994/2005), the moral-social aspect (Nadler and Shnabel, 2015) to describe the socially good and bad dimension (Rosenberg et al., 1968). The second domain is related to one's ability of goal-attainment and is most often referred to as competence (Fiske, Cuddy, Glick, 2007), agency (Wojciszke, 1994; Shnabel and Nadler, 2008), dominance or ambition (Wiggins, 1991; Costa and McCrae, 2011), status, power (Fiske, Cuddy, Glick, 2007; Shnabel and Nadler, 2008) good and bad intellectual (Rosenberg et al., 1968). The communal content refers to the maintenance of relationships and social functioning whereas the agentic content is related to goal-achievement and task functioning (Abele and Wojciszke, 2014). These two dimensions dominate both self- and person-perception, playing a key role in impression formation of others.

In the early years of impression formation research Solomon Asch's (1946) paradigmatic study provided evidence for the central trait theory. According to this, describing a fictitious person as warm *or* cold as part of a list of adjectives alters the overall impression of the target, so warmth was concluded to be a central trait in person perception. In a classic conceptual analysis by Rosenberg and colleagues (1968) sixty-four personality traits were categorized by subjects and multidimensional scaling revealed two almost orthogonal underlying factors. The social good-bad dimension included good-natured, happy, popular and sincere on the positive end whereas the intellectual good-bad dimension comprised positive traits like intelligent, scientific, persistent, determined, skilful and industrious. More recently, thanks to the almost two decade long systematic research program by Bogdan Wojciszke (1994/2005) it is now clear that the warmth and competence dimensions account for as much as 82 percent of global impressions of well-known others (Wojciszke, Bazinska, Jaworski, 1998) and three-quarters of over a thousand recollections of personally experienced past events were found to be framed in terms of these two domains (Wojciszke, 1994).

2.1.2 Evolutionary perspective of social cognition

According to the functional explanation, communion/warmth and agency/competence emerged as a result of evolutionary pressures promoting survival (Fiske Cuddy, Glick, 2007). In this framework, the dimension of warmth is related to the perceived intent of the other as a basis of immediate determination of whether the other is friend or foe, intends good or ill. Traits associated with this are friendliness, helpfulness, sincerity, trustworthiness and morality. The competence dimension refers to the perceived ability of the other including intelligence, skill, creativity, and efficacy.

In addition to that, considerable evidence suggests the primacy of warmth judgements: warmth is judged before competence and they carry more weight in affective and behavioural reactions (Fiske Cuddy, Glick, 2007). From an evolutionary perspective this is adaptive because detecting another person's intent for good or ill is more important to survival than whether the other person can act on those intentions. For this reason the two domains of perception differ in their importance and sequence of processing: warmth cues are detected first and then the other's ability to enact those intentions, in other words their competence, is evaluated. Information about the moral-social dimension is indeed more

accessible, more sought by perceivers, more predictive and more heavily weighted in evaluations (Wojciszke et al., 1998). Wojciszke and colleagues (1998) conclude that the warmth domain predicts the valence of the interpersonal judgements whereas the competence domain predicts the extremity of that impression.

The rapidity of warmth judgements also support the notion that people are more sensitive to warmth information compared to competence information and they are able to make those judgements in a fraction of a second. When judging faces of a hundred millisecond exposure time, subjects' evaluations of trustworthiness of the faces were the most reliable followed by competence judgement (Willis and Todorov, 2006). Reliability was measured as a correlation between time-constrained and time-unconstrained judgements of the same faces. In lexical decision tasks warmth-related trait words were identified faster than competence-related descriptors while word-length was controlled for (Ybarra et al., 2001). Support for automatic processing was also found in a study using a cognitive task called the Stroop paradigm, where subjects had to name the colour of various adjectives flashed on the screen measuring reaction time (Wentura, Rothermund, Bak, 2000). It was found that subjects showed greater interference indicated by longer reaction time when warmth/morality-related other-relevant descriptors (such as adjectives like pushy or kind) were shown compared to the exposure of competence-related self-relevant words. Warmth and competence therefore appear to be two universal dimensions of social cognition with warmth/morality having primacy over competence that contributes to better survival.

Although the universality of the two dimensions is not questioned culture and gender norms appear to be moderating factors. Collectivist cultures, for instance, put greater emphasis on the moral-social dimension whereas individualistic cultures emphasize the competence/agency dimension (Wojciszke, 1997). Gender norms also influence perception. Women, whose traditional gender roles stress communal traits over agentic ones, show greater priority for detecting warmth (Wojciszke et al., 1998; Abele, 2003). Wojciszke (1994) accounts these gender differences to differential socialization practices. Firstly, competence categories for men (such as task orientation and striving for occupational achievement and excellence) and moral categories for women (such as caring for others' needs and well-being) are chronically accessible. Their use is reinforced by social norms as appropriate resulting in a moderating effect of gender. Wojciszke (1994) argues that although in modern societies traditional gender role norms

decrease both in their scope and intensity, they are still part of people's identities as a result of diverging socialization processes. On self-assessed agency however, the differences between men and women are becoming smaller over time, as shown by meta-analyses comparing older and newer studies (Twenge, 1997/2001).

In a more recent work, Wojciszke (2005) contrasts two competing hypotheses that should be tested in the future. He argues for the role self-interest as the main motivator of social cognition which is in line with the evolutionary perspective. The competing hypothesis emphasizes the role of culture/socialization. If he is correct, in both individualistic and collectivistic societies morality should dominate the perception of others but competence should dominate self-perception. This hypothesis is yet to be tested and Wojciszke (2005) calls for more cross-cultural research in the field.

2.1.3 Cognitive biases in competence and morality judgements

Also from an evolutionary point of view, negative information is key to survival that explains the universal and robust phenomenon of the negativity bias (Baumeister, Bratslavsky, Finkenauer, Vohs, 2001; Rozin and Royzman, 2001). Bad events, bad outcomes or negative information exert a stronger, longer lasting effect on people's responses than positive ones. This heightened sensitivity to the negative has an evolutionary adaptive function: bad events signal a need for immediate change for survival or better adaptation. According to the asymmetry of life and death argument, one can live long ignoring positive events but ignoring only one negative may cost one's life (Baumeister, Bratslavsky, Finkenauer, Vohs, 2001). The negativity bias has been shown in social information processing: negative information weighs more in impression formation, negative stereotypes are more rigid, negative feedback is more influential than positive, and loss aversion is a greater motivator than rewards in decision-making (for summary see Baumeister, Bratslavsky, Finkenauer, Vohs, 2001).

Negativity bias in impression formation means that when equal amounts of positive and negative information are presented about a person, a generally negative impression is formulated. This negativity effect however is typical for situations where the information on the target person pertains solely or partially to morality (Peeters and Czapinski, 1990; Skowronski and Carlston, 1989). Interestingly, in case of competence-related information

a positivity bias has been found (Brycz and Wojciszke, 1992; Kubicka-Daab, 1989; Skowronski and Carlston, 1987; Wojciszke, Brycz, Borkenau, 1993). When the integrated positive and negative information pertains only to competence, an overall positive impression prevails. The positivity and negativity effects on the competence and morality domains are convergent and have been confirmed by a sizeable amount research using various measures (Reeder, 1993; Skowronski, 2002; Wojciszke, 2005).

Cognitive theories of social impression integration help explain these findings. According to the schematic model of attribution (Reeder and Brewer, 1979; Reeder, Pryor, Wojciszke, 1992) people have differential schemas about trait-behaviour relations when evaluating others' behaviours. Perceivers assume that moral people behave in moral but not immoral ways whereas immoral people can behave both morally and immorally for moral behaviours are socially expected and rewarded. In other words, moral behaviours are not informative about the underlying trait but negative information about morality is key to determine the trustworthiness of the other. The opposite is true for competence. Everybody can behave incompetently but only people with high competence can behave smart and efficient ways. That is why, when people gather ambivalent information about someone's competence, positive cues will weigh more in the overall impression.

On a similar vein, Skowronski and Carlston's (1987) cuediagnostics model of impression formation states that this difference can be explained by the asymmetrical diagnosticity of positive and negative behaviours in the two domains. In case of morality, negative information has a higher diagnostic value than positives because they better discern between moral and immoral people. In contrast, on the competence domain positive cues have high diagnostic value to decide whether the observed person belongs to the competent category or not. In summary, negative morality is inferred when a person breaks the norm or harms others and it is more informative about the person's character than positive morality which is attributed when the person maintains the norms or benefits others. On the other hand, high competence is inferred when the goal achievement is efficient and successful and this is more informative than low competence that is inferred when the perceived person fails to reach their goal (Wojciszke, 2005).

2.1.4 The nature of relationship between the Big Two dimensions

The nature of the relationship between these two person-perception dimensions is also important to be discussed. The two dimensions are statistically independent as evidenced by Rosenberg and colleagues (1968) who showed that the social and intellectual trait factors had an almost orthogonal relationship. This means that there is little or no correlation between the dimensions. In theory, a smart, intelligent person can be equally socially pleasant or not, his or her competence trait will not be informative about their social and moral qualities. The opposite is true as well, knowing whether a person is kind and trustworthy will not be informative about their intelligence and competence.

From basic social psychology literature it is well-known that impression formation is subject to cognitive and motivational biases. These biases however can be remarkably different in person-perception and in group perception (Fiske, Cuddy, Glick, 2007). When a person is the target of the social cognition the two dimensions often correlate moderately positively as described by the well-known halo-effect (Rosenberg et al., 1968; Judd et al, 2005). Due to the need for cognitive consistency people tend to form their overall impression of the target person that are consistent with the valence (positive or negative) of the information they have. This is not necessarily the case when the targets of perception are social groups. When people judge social groups warmth and competence often correlate negatively. With a systematic research program, Fiske and colleagues (2007) showed that warmth and competence are the two fundamental dimensions of stereotype content of social groups in various cultures. Their research reveals that the four clusters created by the two-dimensional warmth-by-competence space reflect four distinct types of stereotype content and orientation towards outgroups. The high warmth and high competence cluster contains participants' ingroup, in other words, the reference group or the majority for the sampled population/society. In the US context, at the present time, middle-class people, Christians, heterosexuals and US citizens form this cluster (Fiske, Cuddy, Glick, 2007). Hostile stereotypes are formulated towards outgroups belonging to the low warmth and low competence section. According to the empiric evidence poor people, welfare recipients, homeless people, drug addicts and undocumented migrants are part of this cluster. The associated stereotype content consists of traits like hostility, untrustworthiness, being unmotivated and incompetent.

One of the most important findings of the model defies the longstanding view that outgroup prejudice is simply antipathy due to the existence of ambivalent or mixed stereotypes with mixed warmth and competence content (Allport, 1954; Fiske, Cuddy, Glick, 2007). The high warmth but low competence cluster is best described by benevolent paternalistic stereotype content towards outgroups such as the elderly and the physically or mentally disabled. The low warmth but high competence cluster comprises outgroups viewed as able but cold forming the so-called envious stereotypes. At present in the US, these groups are rich people, Asian people, Jewish people, female professionals and minority professionals who possess prized abilities but their intentions are suspect.

Judd and colleagues (2005) argue that it is not the nature of the target (individual or group) that determines the valence of the correlation between the two dimensions. Their empirical results suggest that when a perception elicits social comparison between either individuals or groups the correlation are likely to be negative. On the other hand, when subjects are required to infer traits of other individuals or groups based on information given on one dimension, their responses will likely be consistent with the valence of the given information.

In sum, Fiske and colleagues (2007) conclude that warmth and competence dimensions emerge robustly in independent lines of research in both interpersonal and intergroup settings whether it is experimental or cross-cultural investigation or election polls. Due to the use of various labels however it was not until recently that the pervasiveness of these two fundamental dimensions of warmth and competence was confirmed.

2.1.5 Content variety of the Big Two domains

Several authors (Abele and Wojciszke, 2014; Nadler and Shnabel, 2015; Fiske, Cuddy, Glick, 2007) draw attention on the fact that the Big Two identity dimensions represent broad content categories that include distinct components. The moral-social dimension contains warmth, sociability, trustworthiness as well as morality (honesty, sincerity, fairness, generosity, righteousness, helpfulness) and they are shown to represent different aspects of group identity (Leach, Ellemers, Barreto, 2007). Nevertheless, both Nadler and Shnabel (2015) as well as Fiske and colleagues (2007) argue that these different contents fall under the same overarching moral-social factor.

As for the second dimension that contains intelligence, efficiency, cleverness, competence, creativity, foresightedness, ingeniousness and being knowledgeable, there is no dispute over the competence label according to Fiske and colleagues (2007). On the contrary, Nadler and Shnabel (2015) argue for a more nuanced understanding of the second domain as well, which they refer to as agency. They reason that both status and power, for example, fall on the second dimension although they are shown to have different effects on people's behaviour. In a number of studies by Blader and Chen (2012) using a dictator game and other negotiation paradigms, subjects were primed with either high status or high power or control (no priming) and outcome fairness judgements of negotiation partners were used as dependent variables. As expected, high status characterized by respect and appreciation was positively associated with justice towards others whereas high power characterized by abundance of resources was negatively associated with justice towards others. Furthermore, the authors also found that status and power interact in a pattern that the above described positive effect of status on justice perceptions emerges only when power is low not when power is high. In case of competence, it is important to to also note that different types of competence can be relevant in different contexts (Wojciszke, 2005).

Abele and Wojciszke (2019) reasons that contextual conditions influence the content of the dimensions. It is crucial to be clear about the differences of these distinct features, especially when developing a research design (Blader and Chen, 2012), and it is also important to acknowledge that they fall on the same underlying overarching factor.

2.1.6 The self and self-interest in social cognition: a motivational approach

2.1.6.1 The dominance of competence in self-perception

So far, our emphasis was put on impression formation of others but the Big Two theory is relevant in self-perception as well. The duality of self-perception is manifested in the independent, agentic vs. interdependent, communal aspects of ourselves. To discuss implications on self-perception, a motivational approach based on Peeter's (1983) broad distinction of self-profitable and other-profitable traits is applied. Wojciszke (2005) argues that although Peeter's categorization comprises a wide range of traits, it overlaps with the competence and warmth/morality dimensions. He refers to the first dimension as morality or communion (Wojciszke, 2005) and argues that morality is an other-profitable quality that is directly rewarding for surrounding others whereas immorality is directly harmful to others. This explains why the observed person's morality is more relevant and leads to stronger affective responses than competence that has relatively weak affective consequences for the observer. On the other hand, he argues that while competence is secondary compared to the moral-social dimension when judging others, it is primary when judging the self. He states that competence is primarily self-profitable, being directly and unconditionally rewarding for the self rather than for others. "Whatever one does, it is better to do it efficiently" – as he puts (Wojciszke, 2005 p.61.) Incompetence on the other hand, is unconditionally detrimental to the actor rather than to others. Others lose from the actor's incompetence only if they or their outcomes are dependent on them.

According to a motivational approach these dimensions are related to approach-avoidance strategies as well. On the morality domain when the incoming information is negative it is evaluatively extreme therefore avoidance becomes stronger than approach. It is because of the earlier discussed negativity effect whereas negative information is disproportionally more informative on the morality dimension. On the competence/agency dimension however even an evaluatively weak positive information enhances the approach behaviour (Cacioppo, Gardner, Berntson, 1997; Wojciszke, Brycz, Borkenau, 1993) because positive information is more diagnostic and therefore carries more weight on this domain.

From a motivational perspective the two dimensions can be understood in terms of "self-interest" (Wojciszke, 2005 p. 61). From the observer's point of view the target's morality is more relevant to their self-interests. From the actor's point of view (eg. when

responding or evaluating our own behaviour) competence will be more important and will result in stronger affective responses compared to morality. This can be explained by the different features of behaviours of the two dimensions. Morality is associated with the moral content of the target's goal (intent), its influence on others' well-being and its relation to social norms (other-profitable). Competence on the other hand is associated with the actor's efficiency of goal-attainment potential, signalling whether or not she or he can achieve their goal (self-profitable). This results in a well-investigated hypothesis that competence/agency is inferred from actions serving self-interest and morality/communion is inferred from actions serving the interest of others (Cislak and Wojciszke, 2008). Along the same line of thoughts, this also means that in the actor perspective, self-competence-related information will be more relevant compared to the observer or recipient perspectives where the target's morality will be more relevant (Wojciszke, Baryla, Parzuchowski, Szymkow, Abele, 2011). In other words, as it has previously been established, other-perception is dominated by morality/communion, we can now add that self-perception is dominated by competence/agency.

2.1.7 The Dual Perspective Model[2]

Wojciszke and collegues (2011, Abele and Wojciszke, 2014) embedded this hypothesis in a dynamic interactional interpersonal context when developing the Dual Perspective Model (DPM). The model's main postulate is that the two dimensions of social perceptions are differently linked to the basic perspectives in social in social interactions. The authors describe social behaviour that always involves two perspectives, the standpoint of an agent or actor, that is a person who performs the act in question and the standpoint of a recipient, a person at whom the action is directed, who is on the receiving end of action (Wojciszke, Baryla, Parzuchowski, Szymkow, Abele, 2011). "These two perspectives change dynamically and replace each other as in a conversation where the speaker and the listener take turns. Nevertheless, they lead to different perceptions of what is happening in an interaction because the immediate goals of the agent and recipient differ. Whereas agents focus on getting the action done (which results in increased accessibility of agentic content), recipients focus on understanding of what is being done

[2] In previous publications the authors referred to the model as the Double Perspective Model (Wojciszke, Baryla, Parzuchowski, Szymkow, Abele, 2011). In later publications such as Abele and Wojciszke (2014) the Dual Perspective Model of Agency and Communion (DPM-AC) name is used. In this work, I consistently use the more recent Dual Perspective Model name.

and on avoiding harms or acquiring benefits which are brought by the action (which results in increased accessibility of communal content). We assume that the two basic dimensions of social cognition denote these two ubiquitous perspectives. Communal content denotes how much an action and underlying traits serve the immediate interests of the action recipient, while agentic content denotes how much the action closes upon the current goal and serves the interest of the agent" (Wojciszke, Baryla, Parzuchowski, Szymkow, Abele, 2011 p.618). The authors add that it is not assumed that the interests of agents and recipients are always contradictory, it is only postulated that they are different and conceptually independent. In summary, social cognition is highly motivated (Kunda, 1999) by current self-interests of the perceiver but these interests are served differently depending on the perceiver's moral or agentic perspective.

Substantial evidence have been found to support this claim by, for instance, Wojciszke (1994/2005) who has used a four-fold classification of actions paradigm. It builds on an important assumption: the relative independence (evidenced by the above presented classical research of Rosenberg and colleagues, 1968), in other words, the orthogonal nature of the two dimensions (Wojciszke, 1994). By orthogonal relationship it is meant that both moral and immoral actions can be successful, and both moral and immoral goals can remain unattained indicating the competence or incompetence of the actor. This suggests a 2 X 2 classification of actions implying that the same behaviour has multiple meaning and can be interpreted in two different ways: in agentic or in moral terms (as shown in Table 1.)

Table 1. *"The independence of competence and moral interpretation of behaviour and the resulting four-fold classification of actions" by Wojciszke, 1994 (p. 223)*

	Moral interpretation	
Competence interpretation	Positive	Negative
Positive	Virtuous success	Sinful success
Negative	Virtuous failure	Sinful failure

The first type of action is virtuous success, in which the action goal is moral and it is successfully achieved (eg. saving a drowning person or helping a friend in Maths) (Wojciszke, 1994/2005). The second type of action is virtuous failure where the goal of the actor is moral but it is unsuccessful (eg. making and attempt but failing to rescue a

drowning person or failing to help a friend in solving a Maths task). The third type of action is sinful success where the goal is immoral and it is successfully achieved (eg. undetected cheating on an exam). Finally sinful failure implies an immoral and unsuccessfully executed action (eg. being caught cheating on an exam). Theoretically each action is potentially interpretable in both moral and competence terms.

Wojciszke (1994) proposed and tested systematic effects influencing people's evaluative judgements hypothesizing and finding that each action can be construed in both ways, though not at the same time by the same person. First, the basic assumption was investigated whether or not actions *by nature* elicit two alternative interpretations. The competing hypothesis was that evaluative ambiguity (eg. virtuous failure or sinful success) was necessary for the emergence of such duality. As expected, he found that competence and morality construals of the same action type strongly and negatively correlated with each other not only in case of the ambivalent episodes but also in the univalent ones (ranging from -.54 to -.87 $p > 0.001$) (p.226).

The actor-observer role was hypothesized to be a determining factor of subjects' spontaneous choice in applying moral or competence framework. Both in experimental (role-playing and thought-reconstruction) as well as a correlational (memory recollection) design it was evidenced that being an actor was associated with competence-driven evaluations whereas the observer perspective was associated with the moral meaning of the behaviour to a higher degree. In the correlational study, subjects were asked to recall own past experiences where either themselves or others did something emotionally involving (either clearly positive or negative). The descriptions were coded by independent raters on competence- and morality–related content. As expected, competence and moral categories were frequently used showing a clear-cut pattern: actors used competence/agency–related construals whereas morality prevailed in the evaluation of others (Wojciszke, 1994).

Global evaluations of others and self were in line with these findings, as well. Virtuous failures, for instance, led to a positive evaluation in case of other-perceptions because morality is more relevant for an observer. Such actions, therefore, were perceived mainly as moral acts. In case of self-evaluation virtuous failures were perceived predominantly as failures and led to a negative evaluation of self because competence is more relevant in the actor's perspective (Wojciszke, 2005). The four-fold classification of actions

paradigm showed how people tend to alternate between these two dimensions depending on their perspective. In the field of global impression formation both dimensions are investigated at the same time. In a systematic research program Wojciszke, Bazinska and Jaworski (1998) using various methods confirmed that global evaluative impressions are influenced by morality to a higher degree than competence. Global impressions of real persons were better predicted from the morality-related traits than competence-related traits, the former accounting for 53 percent, the latter 29 percent of the variance of global evaluations. Fictitious persons' positive-negative global evaluations were based mainly on morality-related content, while competence-based information served only as a relatively weak modifier of impression intensity.

In terms of interactions between the two dimensions in within-person impression formation it was found that morality information was a strong and stable predictor whereas competence information had a much weaker effect and depended on the accompanying morality information. When the target's behavioural acts were immoral, high competence led to more negative impression than low competence because high competence means higher efficiency in wrong-doing. Moral meaning of an act can radically change the evaluations of concomitant competence traits, but not the other way round (Peeters, 1992).

In summary, the Dual Perspective Model has three general hypotheses (Abele and Wojciszke, 2014). First, communal content is primary among the two dimensions. Second, in perception of others (in other words, in the observer/recipient perspective) communal content receives more weight than agentic content. Thirdly, in self-perception, one is more likely to apply the actor perspective where the agentic content receives more weight than the communal content.

2.1.7.1 Factors influencing agentic perception

It is important to note however that there is evidence showing that the general dominance of the communal dimension in other-perception is sensitive to the context. Two modifying factors have been identified when competence becomes more important in other-perception than morality. High degree of dependence (eg. from one's supervisor) as well as high degree of closeness (eg. close friend**)** shifted social judgements from the dominance of communal perception toward the dominance of the agentic perception

category. When perceiving close others or other people whose actions fulfil vicariously the perceiver's interest, such as one's lawyer (Wojciszke and Abele, 2008) agentic perspective is assumed (Wojciszke and Abele, 2008; Wojciszke, Baryla, Parzuchowski, Szymkow, Abele, 2011). Supporting this claim Wojciszke, Baryla and Mikiewicz (2003 cited by Wojciszke, 2005) found that supervisors' global evaluations by their employees were based on the supervisors' competence on a higher degree than their morality. Interestingly, it was also found that this was only true in competitive organizations where employees' outcomes increase with the competence of their supervisor. In different types of organizations, such as bureaucratic state administration units, where the boss does not contribute to employees' outcomes, this shift of importance did not hold (Wojciszke, Baryla, Mikiewicz, 2003 cited by Wojciszke, 2005). Finally, perspective can also be experimentally manipulated by asking participants to identify with the actor, by using a learning by modelling apporach (Wojciszke, 1994) or by priming (Wojciszke, 1997) which results in taking the agentic perspective in their evaluation. A separate perceptual category is that of the witness, in other words the perspective of the uninvolved observer.

In theory an observer could take both agentic and communal perspective. There is considerable evidence showing that unconcerned observers by default assume the recipient's perspective (Vonk, 1999; Wojciszke, 1994). To conclude, the maximization of self-interest plays a key role in social cognition and affective responses. It may not be the only motivating factor but "it is a basic fact of life" (Wojciszke, 2005 p. 69).

2.1.8 Affective concomitants of social cognition

The above presented theories and models (DPM, SCM) of social cognition have implications on how perception influences emotions and behaviours and great effort has been made to identify specific emotions accompanying the various perceptual dimensions. In the following section I review relevant extensions of the Dual Perspective Model (Wojciszke, Baryla, Parzuchowski, Szymkow, Abele, 2011), the Stereotype Content Model (Fiske, Cuddy, Glick, 2007) and more specifically I include literature on conflict-related moral emotions as well as their relation to attribution patterns.

Wojciszke, Abele and Baryla (2009) clarify that their theorizing is restricted to cognition-based interpersonal affect. In other words, emotions that are included as the model's extension have a clear cognitive basis as they are inferred from self- and other-perceptions and interpretations of behaviours. They are therefore distinct from emotions that are based mainly on affective mechanisms such as conditioning or mere exposure. This way the tripartite model of attitudes is applicable where the evaluative judgement is the cognitive component of interpersonal attitudes that results from the bi-dimensional person-perception processes (Wojciszke, Abele,Baryla, 2009).

2.1.9 General extention of the Dual Perspective Model on concomitant emotions

Wojciszke and Dowhyluk (2003) investigated competence- and morality-related emotions both in case of self- and other. In their research they measured the intensity and the valence of emotional responses then content-analysed answers to identify specific emotions. In their memory recollection paradigm, half of the subjects were asked to recollect two competence-related episodes (one on own personal success and one on own failure) and the other half of participants had to recall own morality-related personal episodes (one on own moral transgression and one on own virtuous act) together with concomitant emotional states (Wojciszke, Dowhyluk, 2003). As expected, the negative recollections of own failure elicited more extreme negative emotions than own moral transgression and similarly, the positive memories of one's success was associated with more extreme emotions than with one's moral act. The content analysis of the emotions revealed qualitatively distinct affective states. On the negative domain, own failure was associated with low arousal emotions typical for dejection (disappointment, sadness, depression, tiredness) whereas emotions recalled upon one's own moral transgression were typically high-arousal, anxiety –related (fear, anxiety, excitation, uncertainty, guilt).

Wojciszke (2005) notes the parallel between these findings and Higgins's (1989) self-discrepancy theory. Higgins posits that discrepancy between one's actual and ideal self (representation of attributes one would like to possess) leads to dejection and a depressed state whereas discrepancy between one's actual and ought self (representation of attributes one believes one should possess) results in anxiety. Based on his results, Wojciszke (2005) postulates that the ideal self probably contains mainly competence-related qualities whereas the ought self is likely to contain morality–related attributes.

Exactly the opposite is true for emotions reported as responses to other people's competence and morality (Wojciszke and Dowhyluk, 2003). Participants reported stronger emotions in response to others' morality (transgressions and moral acts) than to others' competence (failures or successes). In addition to that, content analysis revealed that immoral behaviour appeared to be inherently negative as moral transgressions always led to negative emotions. On the other hand, recollection of others' moral behaviour yielded ambivalent results. When subjects recalled a moral act by someone they liked the associated emotions were positive but when they recalled a moral act of someone they disliked the valence of emotions were mixed. Twenty-eight percent of the respondents indicated uncertainty or doubt as their emotional state in the latter condition and both satisfaction and dissatisfaction as well as surprise were mentioned. Similarly, an ambivalent emotional pattern was detected as reactions to others' competence-related outcomes. In relation to others' failure both negative (dismay, sadness, helplessness) and positive emotions (satisfaction, joy, relief) were reported. Mixed responses were found also in the case of others' success: joy and optimism as positives, envy and sadness as negatives. In summary, it can be noted that the perceiver's own attitude toward the actor serves as a strongly disambiguating factor.

In can be concluded that, derived by the logic of self-interest, people show stronger affective responses towards others' morality and towards own competence (Wojciszke, 2005).

2.1.10 Self-aspects of competence-based emotions: sources of self-esteem

For self-related emotions Wojciszke and colleagues (2011) turned to the tripartite model of attitudes (Eagly and Chaiken, 1993) and their starting point was the above established assertion that while morality dominated interpersonal attitudes, self-cognition was dominated by competence/agency. In this context, self-competence and self-related morality are understood as specific parts of the self-concept and can be viewed as the cognitive content of the self-attitude. The affective component of the self-attitude is self-esteem that is conceptualized as an affective response toward the self. Following the above presented logic, if competence/agency is more important in self-perception than morality then self-esteem depends to a higher degree on competence than morality-related information (Wojciszke, 2005). In a series of correlational studies (Wojciszke, 2005) participants of four different samples (high school and university students, financial firm employees and state clerks) were asked to rate themselves on different measures of self-esteem and morality-related (fair, good, honest, loyal, selfless, sincere, truthful) as well as competence-related terms (clever, competent, efficient, energetic, intelligent, knowledgeable, logical). Traits were balanced for general favourability as well as for their degree of morality and competence relatedness. The results revealed that only competence showed high and significant correlation with self-esteem and it was competence not morality that could significantly predict self-esteem in regression models. Although these studies are only correlational in nature, there are a number of experimental research that used success or failure manipulation, in other words competence-manipulation to study self-esteem (cited by Wojciszke, 2005).

Self-competence or sense of agency is a relatively stable trait that can be specifically related to behavioural outcomes (of success or failure), to goal-attainment, mastery, control, status and as discussed above, to self-esteem (Abele, Rupprecht, Wojciszke, 2008). The causality between agency and performance is reciprocal, high levels of agentic feelings lead to higher success and success leads to higher levels of agency. In a longitudinal study, Abele (2003) found that agency predicted occupational success 18 months later. A reciprocal impact was also found where occupational success led to increases in agency. This shows the dynamic nature of agency (Abele, Rupprecht, Wojciszke, 2008) creating a feedback loop between high trait agency leading to success experiences that in turn increases trait agency. Interestingly, it makes sense to discuss state agency as well, as it is also a malleable response to situational conditions (eg. of

success or failure). In three studies, Abele and colleagues (2008) demonstrated that experimental induction of success and failure experiences influenced self-described agency independent of trait agency, trait self-esteem as well as of participants' gender. These findings support that state-like agency is situationally influenced by the experience of success versus failure at a task. Communion was found to be unrelated of success and failure experiences and it is postulated that it may vary with social experiences like becoming friends with someone or feeling empathy for another person.

2.1.10.1 Specific competence-related emotions: pride and shame

An important question is whether specific emotions can be associated with agentic self-cognition, with success and failure experiences. Pride and shame have been cited by more authors as self-competence related emotions (Stipek, 1983; Martens, Tracy, Shariff, 2012; Fessler, 2007; Chapais, 2011). Evidence supports that pride and shame are more closely tied to cognition and presumably to cognitive development and learning than other emotions, for example happiness or sadness (Stipek, 1983). Further characteristics of the two emotions are their self-relevance, their quality of requiring self-reflection and that both are the results of purpose and effort although the latter is not a prerequisite (eg. one can be proud of inherited qualities as well) (Stipek, 1983). From an evolutionary perspective, pride is associated with accomplishment and high status whereas shame is posited to be involved in the regulation of status competition. Shame is a complementary emotion of pride (Fessler, 2007) and it refers to the pain felt when losing a contest or dropping in rank. Pride has both intrapersonal (pride felt in relation to one's own success) and interpersonal (pride felt about someone else's success) aspects.

In this section, intrapersonal pride is discussed as a self-relevant emotion. Feelings of efficacy are suggested as the biologically based emotional precursor to pride (Stipek, 1983). Fredrickson (2001) argues that positive emotions have specific evolutionary adaptive value as they promote the broadening of the thought-action repertoire of the individual. Pride follows personal achievements and it broadens by creating the urge to share news of the achievement with others and to envision even greater achievements in the future (Lewis, 1993; Fredrickson, 2001). Displays of pride are thought to benefit both expressers (by signalling high status and according deference from others) and observers

(by affording valuable information about social-learning opportunities) (Martens, Tracy, Shariff, 2012; Henrich, Gil-White, 2001).

Conceptually speaking, shame can be related to both competence (failure) and moral transgression. It is associated with displaying deference that is thought to function to appease others after a social transgression (Martens, Tracy, Shariff, 2012). Stipek (1983) however makes an important distinction between shame and guilt when discussing their developmental origins. She builds on the analysis of Piers and Singer (1953; cited by Stipek, 1983) who argue that shame occurs when a goal, that is relevant for the ego ideal, is not being reached indicating a shortcoming. In contrast, guilt is generated when an individual transgresses boundaries believed to merit punishment. In other words, guilt accompanies transgression (Baumeister, Stillwell, Heatherton, 1994), shame accompanies failure (Stipek, 1983 p. 44). Along the same lines, Lewis (1971) and Shane (1980) describe shame in terms of discrepancy between actual achievements and one's ego ideal. To conclude, we can say that pride and shame are competence-related self-relevant emotions that follow success or failure experiences and have evolutionary adaptive value.

2.1.10.2 Emotions related to competence-threat

Finally, it is important to discuss emotions stemming from competence-threat. Intimidation is associated with high status or power and can take many forms (physical or verbal threats, explicit or latent use of coercive power, conscious strategy or unintended influence, etc.) In this section we focus on the feeling of being intimidated specifically by perceived threat to one'scompetence. In a school setting students may feel intimidated for a variety of reasons. According to Micari and Drane (2011) intimidation is elicited primarily because of worry of being less talented or less able to perform well than others. When individuals are confronted with others they view as more competent, the threat of feeling inferior hinders cognitive engagement and results in reduced ability to process information, learn effectively (Mugny et al., 2001) and disengagement from the task at hand (Monteil and Huguet, 1993). The postulated underlying mechanisms are social comparison, that is, comparing one's ability to others' often prompts or heightens anxiety among students (Dijkstra et al., 2008; Mugny et al., 2001). Individual differences, such as having strong performance (as opposed to learning) goals (Dweck, 1986; Mugny et al.,

2001), and performance-avoidance goals (Elliot, 1999) moderate the effect of intimidation.

2.1.10.3 Specific interpersonal emotions as derivatives of the DPM model: liking and respect

In the interpersonal context, the Dual Perspective Model builds on the two-component nature of interpersonal attitudes. Along the same logic used in case of self-perception, Wojciszke, Abele and Baryla (2009) argue that the cognitive components of interpersonal attitudes result from person perception processes which involve two basic types of content, agentic/competence-based and moral/communal. They postulate that the affective components of interpersonal attitudes result from interpersonal attraction also involving two dimensions: liking and respect. Whereas liking and disliking reflect personal preference, respect and disrespect reflect deference. Although most research on interpersonal attitudes implicitly assume its unidimensional nature, Wojciszke and colleagues (2009) argue that several authors postulated the multidimensionality of liking differentiating between social vs. intellectual attraction (Lydon, Jamieson, Zanna, 1998), liking and admiration (Heider, 1958) or liking and respect (Kiesler and Goldberg, 1968). In the latter case Kiesler and Goldberg (1968) factor analysed various activities that were related to attraction. They found two factors, the first one was liking and included activities like inviting the other to a party, to a movie or to join their club whereas the second factor, respect, comprised activities such as asking the other for their opinion on important issues, voting for the other and respecting each the other's knowledge.

While both liking and respect are theorized to be affective responses to another person they are thought to be differing in their nature and their cognitive antecedents (Wojciszke, Abele, Baryla, 2009). Wojciszke and associates (2009) postulate that liking is more influenced by the target person's communion, while respect is more influenced by judgements of the target's agency. Liking is a response reflecting personal interest and preferences, such as fondness, attachment and enjoyment whereas respect is a response reflecting feelings of high regard of as well as deference to another person. At the root of the relation between communal traits and liking lies the pre-established notion that one's perceived communion is other-profitable in nature (Peeters, 1992) meaning that they have direct influence on the perceiver's interest and well-being. If a target is benefitting the perceiver's goals and interest they will be more liked than targets appearing to be acting against self-interest. This is supported by the results of Russell and Fiske (2008) who

found that strangers who met in a cooperative setting benefitting each other perceived one another more communal than strangers who worked together in a competitive context working against each others' interest. Agency on the other hand, was established to reflect self-profitable traits that could become interpreted as selfishness in an interpersonal context.

Wojciszke and colleagues (2009) argue that besides selfishness agency has a positive aspect given that numerous agency-related qualities, such as competence, intelligence and self-sufficiency have high global favourability. The authors reason that the positive aspect of agency reflects its social utility (Dubois and Beauvois, 2005) that provides information about how well a person is able to meet their society's requirements. Social utility judgements are assumed to be the basis of respect. They emphasize that at least in individualistic societies showing agency is a prerequisite to success and successful persons are granted respect (Wojciszke, Abele, Baryla, 2009). In addition, agency is closely related to status in a bi-directional fashion. On one hand, high status individuals are respected and perceived as highly agentic/competent whereas agentic/competent individuals are respected because they are perceived to be having a high potential to elevate their status (Wojciszke, Abele, Baryla, 2009). The former direction was also evidenced by Russell and Fiske (2008) in an interpersonal experimental setting where they found that persons who were randomly selected into the high status condition were nonetheless perceived significantly more competent compared to subjects in the low status condition even if they showed an identical level of efficiency.

The hypothesis that agency and not communion strongly influences respect whereas communion and not agency strongly influences liking was tested by Wojciszke and colleagues (2009). Two studies were conducted, both involved the evaluative judgements on perceived agency, communion, liking and respect of a fictitious person collecting data online (study 1) and of employees' about their supervisors in a financial firm. From a conceptual viewpoint it was found that items measuring communion and agency as well as items measuring liking and respect fell on a different factor explaining 38.75 and 28.49 percent of the variance of the perceptual dimensions respectively and 51.20 and 23.25 percent of the variance of the emotional dimensions respectively (p.977). In both studies regression analyses showed that liking was better predicted by the communion measures whereas respect was predicted to a higher degree by the agentic measures, so their hypotheses were confirmed.

In both studies however weak but significant superfluous influence of agency on liking and communion on respect also occurred. The authors theorized and further tested that this effect could be a result of the overlap between respect and liking because they were moderately (in study 1) and strongly (in study 2) positively correlated in their data. When liking was entered and controlled for in the regression analysis of respect, perceived communion either ceased to be significant (study 2) or it has become much weaker (study 1). This supports the argument that the superfluous effect appears due to the overlap between liking and respect. When respect was entered and controlled for in the regression analysis of liking perceived agency disappeared as a predictor in study 1 and interestingly it remained a weak significant predictor but with a negative valence in the real life study 2. This means that in a workplace context when perceived agency does not go together with perceived respect, perceived agency of the boss would lead to dislike. These results show that the affective components (liking and respect) of interpersonal attitudes are also positively correlated just like competence and morality in person perception (Rosenberg et al., 1968; Judd et al, 2005; Fiske, Cuddy, Glick, 2007) but they can also be inversely correlated similarly to their cognitive origins as shown by the Stereotype Content Model (Fiske et al., 2002).

In fact, in case of group perception, Fiske, Xu and Cuddy (1999) argue that stereotypes tend to be positive on one dimension, competence or warmth, but not both. The only group typically viewed as both competent and warm is one's own due to ingroup favouritism. In their 1999 study titled '(Dis)respecting versus (dis)liking: Status and interdependence predict ambivalent stereotypes of competence and warmth', Fiske and colleagues use the terms liking and respect although they are not measured as separate affective components (cf. Wojciszke, Abele, Baryla, 2009), they are only inferred from the cognitive components of warmth and competence.

In two additional studies, Wojciszke and colleagues (2009) also demonstrated that perceived benevolence of the target mediates the path between communion and liking and the target's status potential (measured by items like 'this person is apt to be promoted' p.983) mediates the relationship between agency and respect. Lastly, Wojciszke and colleagues (2009) note an important distinction between the nature of like and respect. They argue that the two constructs differ in terms of their social sharedness, in other words they differ in the degree to which people agree who is liked and who is respected. Liking is anchored in the perceiver's interests or preferences and these may vary widely

depending on current goals. Respect on the other hand, appears to be anchored in the person at whom it is directed rather than in the perceiver. Respect, the authors argue, can only persist with a substantial social consensus. Liking therefore is much more subjective and more dependent on the perceiver than on the target of the perception whereas respect depends more on the target and is more socially shared.

Interestingly, respect has also been found to have evolutionary adaptive function. Henrich and Gil-White (2001) propose a two-way evolutionary model of status attainment differentiating between dominance and prestige. The dominance route to the top involves physical intimidation and operates with coercive power, resulting in fear reactions in others and hubristic pride in the self. The prestige route involves skill, knowledge, competence and translates into influence, resulting in attraction to experts and authentic pride for the self (Chapais, 2015). Although both ways result in deference and cooperation as responses from others, only prestige goes together with freely conferred deference. Henrich and Gil-White (2001) argue that attraction to the most competent individuals (eg. experts) emerged with the human cultural capacity and it enabled followers to acquire knowledge from the best available models. The authors argue that social learning, in other words copying experts, is the driving force behind the evolution of prestige status. Prestige, therefore, evolved in response to a selective pressure that favoured the acquisition of information from highly skilled individuals (Chapais, 2015).

2.1.11 Self-aspects of the morality dimension: fear of social exclusion

So far, evidence for the importance of competence for the self and evidence for the importance of morality of others have been established. What is the relevance of morality for the self and what consequences does it have? When it comes to morality and the self an interesting pattern can be observed. One is that people think of themselves as highly moral by default and this seems to be a universal characteristic. According to Baumeister (1996), everybody feels moral, including convicted thieves, robbers, and even murderers. Secondly, there is a well-documented general tendency to ascribe oneself a higher degree of morality than competence, also known as the Muhammad-Ali effect[3] (Allison,

[3] The name comes from heavyweight boxing champion Muhammad Ali who was once asked whether he had really failed the army mental examination in 1967 or he deliberately faked poor performance to stay out of service. Responding with a wit Ali said that the failure was genuine

Messick, Goethals, 1989). This effect refers to the relative levels of morality and competence in self-attributions in comparison with others. It is about a widely-shared self-evaluative tendency that people are inclined to think that they are better but not necessarily smarter than others. More precisely, it shows that people see themselves as more likely to perform desirable behaviours and less likely to perform undesirable behaviours than others and that this effect is stronger for fair/unfair (moral/immoral) than intelligent/unintelligent behaviours.

Thirdly, self-ascribed morality is not found to be empirically related to self-esteem (Wojciszke, 2005) despite relevant theorization (Leary and Baumeister, 2002). From a theoretical and empirical point of view, Wojciszke confirmed on four different samples (university and high school students, business employees and state clerks) that self-competence was significantly and positively correlated with self-esteem while self-describing moral traits did not correlate significantly with self-esteem detecting no ceiling effect that could account for these result. Wojciszke, 2005 also cites a number of experiments where competence-related success or failure was the manipulation for self-esteem levels. This finding clashes with Leary and Baumeister's (2002) sociometer theory of self-esteem, according to which the main function of self-esteem is to monitor and counteract the danger of social exclusion. Self-esteem is, therefore, dependent on information on social inclusion (increasing self-esteem) or exclusion (decreasing self-esteem). Wojciszke (2005) argues however that the experiments presented to support this argument by Leary (2002) lack clarity in relation to how participants construed the reason of their exclusion as the design involved competence-based tasks as well. He claims that because of the task context it is possible that participants read their rejection (non-selection) in the following round as a result of their incompetence which in turn decreased their self-esteem as predicted by the Dual Perspective Model. In other words, it would be important to test how rejection based on purely moral reason influences self-esteem.

In order to reconcile the sociometer theory of self-esteem and the implications of the DPM on self-esteem, Wojciszke (2005) summarizes how morality and competence are implicated in social inclusion-exclusion processes. He concludes that morality is ascribed to the self *universally and independently* of any facts or other self-judgements and agrees with Leary and Baumeister (2000) that it is likely because people are strongly motivated

quipping „I only said I was the greatest, not the smartest" (Allison, Messick, Goethals, 1989 p.275-276.)

to social inclusion and have a universal need to belong. This is shown by people's ability to establish social attachments quickly and their resistance of breaking existing bonds (Baumesiter and Leary, 1995). The consequences of social exclusions are serious leading to emotional stress, reduction of one's cognitive capacity and self-defeating behaviours (Baumeister, Twenge, and Nuss, 2002; Twenge, Catanese, and Baumeister, 2002). He argues therefore that when it comes to judging the self from a morality point of view, "an inference of immorality seems to be a psychological impossibility, because it would mean a generalized expectancy of (deserved) exclusion. Therefore judgments of own morality become a priori positive (meaning "I deserve inclusion"), which helps to explain the lack of correlation between morality self-ascription and self-esteem. It also leads to a prediction that self-esteem should be less moved by incoming information about own immoral performance (than by competence-related performance) possibly through stronger rejection of such information and questioning its validity. To the best of my knowledge, this hypothesis has been neither formulated nor pursued empirically and it remains to be tested in future research." (p. 69).

In his opinion, the central role of morality is supported by the logic of social exclusion as immorality may be the most universal cause of it. Although it is possible that some social groups exclude people for competence-related reasons (eg. lacking intelligence or some special abilities) it is likely that *all* social groups exclude people who are considered dishonest, immoral, disloyal or unfair. Generally speaking, when a person is immoral, he or she breaks rules that everyone shares so it is safer for the community to exclude the person even upon just one cue of immorality. On another note, morality applies universally to every (mentally healthy) person the same way while competence may be much more individualized. Due to the division of labour in social groups a person may be incompetent in certain areas but he or she may be good at something else that is valuable for the group or respected by the community. Self-evaluations in general are probably based on these areas of expertise. This way, though competence is more diverse and personalized, it is crucial for the self.

To sum up, the universal tendency to feel moral, the tendency to ignore the moral meaning of one's own behaviour and stress instead the competence meaning (Wojciszke, 1994) as well as the lack of relation between self-esteem and self-attributed morality support the notion that there is a general need for humans to see themselves morally good by default.

The fact that the self is viewed as moral reflects its worthiness for social inclusion which is based on a basic human need to belong and to avoid the threat of social exclusion.

2.1.12 Moral emotions

Several authors discuss the importance of the moral aspect in emotional responses. Mikula and colleagues (1998) argue that injustice evokes both anger and disgust toward behaviours that are viewed as immoral and impeding one's goals and plans. Smith (2000) makes a differentiation by stating that anger is more likely to be elicited when outgroups are perceived to have interest in detracting from ingroups that create a zero-sum competition framework. Contempt and disgust on the other hand are results of downward contrastive comparisons where for example the target has a lower status. In Rozin and colleagues' (1999) framework, anger, contempt and disgust all express moral outrage although on a different level. Violations of individual standards evoke anger, violations of community norms elicit contempt and violations of divine, religious standards provoke disgust.

To understand the relationship between cognitive appraisal and emotions let us turn to Weiner's (2006) taxonomy of the so-called moral emotions. Weiner distinguishes a group of emotions that arise in a social context, serve as behaviour regulators and have social consequences. They involve moral considerations of right and wrong, good and bad, ought and should and for this, they are products of certain thought pattern. In other words, they are thoughtful emotions "one may be talked into or out of these feelings" (Weiner, 2006, p. 87). Weiner identifies twelve moral emotions, three of which are inner-directed and associated with something the self has or has not done: guilt, shame (humiliation) and regret. The rest of the moral emotions are outer-directed: admiration, anger, envy, gratitude, indignation (resentment), jealousy, schadenfreude (joy at the suffering of others), scorn (contempt) and sympathy (pity) (p. 87.)

Causes of these moral emotions have three properties: locus (internal or external), controllability (is the cause in control of the self or the other or is it outside of it) and stability (is it a stable or a changing characteristic). He identifies attributions of responsibility as a key mediator between the cause of an achievement-related outcome and achievement evaluation. For this reason, controllable, effort-linked emotions are the

ones that are thought to be the result of the other's effort: admiration and gratitude (when the outcome is positive); anger, indignation and jealousy (when the outcome is negative); or of the self: guilt and regret (in case of negative outcome). Interpersonal emotions that are perceived as uncontrollable, in other words, ability-linked are envy (in case of positive outcome), scorn and sympathy (in case of negative outcome). Shame is their intrapersonal counterpart (in case of negative outcome). Schadenfreude is a special case that occurs upon the perceived deserved misfortune of an envied other. Let us note that no inner-directed positive moral emotion is identified neither in relation to the morality or the success domain.

In Weiner's taxonomy the difference between admiration and envy is the hypothesized difference in their controllability. Weiner (2006) postulates that people typically envy others for uncontrollable qualities such as beauty and intelligence while admiration is typically a result of attributions of effort and hard work resulting in success which is therefore perceived as well-deserved.

Weiner does not say much about the difference of pity and scorn, he refers to them as "phenotypically dissimilar but genotypically identical" (p.96) involving similar temporal sequence. In both cases failure is attributed to uncontrollable lack of ability for which the targets are not held responsible. The major difference identified by the author is its elicited behavioural response: while pity leads to prosocial behaviours like helping (going toward), scorn is more likely to lead to neglect or being antisocial (going against).

Anger and resentment share similar attributional pattern as they are generated by judgements of personal responsibility of the target for a transgression. In his view, the difference between them is that in case of resentment the experiencer of the emotion need not be personally involved or affected by the social transgression, it is generated only by moral concerns.

Lastly, guilt is understood as an inner-directed emotion that follows volitional acts or their omission that violate ethical norms and principles of justice. Guilt also contains the potential to motivate the subject to make amends as opposed to withdrawal and helplessness as in the case of shame (Weiner, 2006).

2.1.13 Warmth and competence in group perception: The Stereotype Content Model

In the context of group perception, Cuddy and colleagues (2008) argue that social status predicts competence judgements whereas warmth judgements are predicted by competition. They found supporting evidence using both correlational (Cuddy, Fiske, Glick, 2008) and experimental (Caprariello, Cuddy, Fiske, 2009) design. In this context, status is understood as the capability of groups to control resources. The Stereotype Content Model predicts that a group's position on the competence dimension can be inferred from their perceived status relative to other groups in a given society. High status groups (rich people, for instance) are believed to be competent, low status groups (eg. poor people) are believed to be incompetent. The authors argue that it may be due to the fundamental attribution error that status is associated with internal abilities, disregarding circumstances such as inheritance, opportunity or luck. This bias is especially strong in Western individualist cultures (Gilbert and Malone, 1995).

Warmth on the other hand is predicted by the perceived cooperative or competitive nature of the intergroup relations. Warmth is theorized to serve a function in the structural relations between groups' incompatible goals. In other words, competition for scarce or desirable resources and zero sum frameworks are related to conflict and conflict decreases the perceived warmth of the outgroup. This is supported by Phalet and Poppe's (1997) findings that perceived conflict negatively predicted socially desirable traits of morality in national and ethnic stereotypes. Cuddy and colleagues (2008) argue that the ingroup, its allies, and reference groups do not compete with themselves, so they are perceived as warm. Compliant and subordinate groups, such as the elderly, the disabled and housewives in the US context, are disrespected for their low competence but liked by the qualities that keep them subordinated as long as they are not viewed as threatening. This cluster is therefore subjected to paternalistic stereotypes by the dominant group and no negative intent is attributed to them. Attributing desirable, warmth-related characteristics to members of this cluster also serves the function of maintaining the status quo with minimal conflict (Jackman, 1994). By contrast, groups that are perceived as competitive are stereotyped lacking warmth and interestingly this is true for both groups of high and low status or competence. Cuddy and colleagues (2008) argue that competitive outgroups elicit attributions of negative intent as well as frustration and resentment. Fiske and Ruscher (1993) postulate and confirm that the primary source of negative affect toward

outgroups is the perceived incompatibility of their goals. If the outgroup is successful, they "receive grudging respect for their envied control over resources, but are never liked or seen as warm" (Cuddy, Fiske, Glick, 2008 p. 96).

Empiric evidence was found to support this claim by Glick and Fiske (2001) showing that contemporary, high status, competitive groups in the US, such as Asians and Jews are viewed as groups that are successfully competing for economic and educational resources with mainstream society and they are rated significantly less warm compared to US majority reference groups like middle class people and Christians. Interestingly, groups comprised by the low competence – low warmth cluster, such as welfare recipients, drug addicts, homeless, are also viewed as competitors. Although they are not considered successful, they are viewed in a zero-sum system as exploitative or competing in the sense that they are seen as draining the resources of the society as free-loaders while contributing little. In conclusion, perceived status predicts competence judgements and perceived competition predicts warmth judgements in group perception.

In line with the SCM, authors (Shnabel, Ullrich, Nadler, Dovidio, Aydin, 2013) from the field of conflict and reconciliation experimentally tested and found that in case of natural and experimentally induced group disparity, the advantaged group members responded more favourably to adversary's messages reassuring their group warmth whereas disadvantaged groups responded more favourable to messages affirming their group's competence.

2.1.13.1 Extension of the SCM model on concomitant emotions

Authors of the Stereotype Content Model (Fiske et al., 2002; Cuddy, Fiske, Glick, 2008) also make predictions regarding specific concomitant emotions, attributions and behavioural consequences for the four clusters. They base their postulates of stereotype-induced emotions on social comparison (Smith, 2000) and previously described attributional models of emotions (Weiner, 2006). Characteristics of social comparison determine the type of emotions they elicit. Social comparison can take different directions (upward or downward) and they can differ in their nature (assimilative or contrastive). Lastly, perceptions of the competitiveness of the outgroup also play an important role. In the extension of their model, based on these three factors, they postulate that the ingroup and its allies will elicit admiration, pride and respect; the high warmth-low competence

cluster will elicit pity or sympathy; the high competence- low warmth cluster will be associated with envy, jealousy, dislike and hostility whereas the low competence – low warmth cluster would induce contempt, disgust and hate.

High warmth and high competence social groups are dominant or mainstream in a society and serve as reference groups or allies. In this case we talk about upward, assimilative social comparisons where the group is perceived as high-status but non-competitive. Their function is often to provide positive source of self-esteem by, for example, basking in the reflected glory of the group's success (Cialdini et al., 1976) or to provide a target for assimilation. According to Smith's (2000) theory, upward, assimilative social comparison elicit admiration and inspiration. Interpersonal pride targets those who attain favourable outcomes that also have positive implication for the self (eg. basking in the reflected glory, increasing self-esteem). Cuddy and colleagues (2008) conclude that pride, admiration and respect therefore are directed toward successful ingroups, reference groups and close allies.

Negative emotions such as contempt, envy and jealousy are postulated to be felt towards groups that are perceived cold and as discussed above in competition for scarce resources with the reference group. Contempt involves downward contrastive social comparison directed toward low competent groups (such as welfare recipients, drug addicts or poor people). Envy and jealousy involves upward assimilative social comparison towards high competent but cold and competitive groups (such as Asians or Jews) (Cuddy, Fiske, Glick, 2008).

Incompetent but warm, non-competitive groups, such as the elderly, the mentally and physically disabled are prone to elicit pity and sympathy. Weiner and colleagues (1982) evidenced that pity has a unique attribution pattern of external, uncontrollable events leading to the negative outcome. A key element in whether or not a victimized group will be subject of pity and paternalistic stereotype lies in the lack of perception of responsibility for their misfortune. For this reason, certain conditions are more likely to elicit pity than others. Negative outcomes, such as physical disabilities like Alzheimer's disease, blindness, heart disease or cancer, are viewed as onset-uncontrollable. Where causes can not be controlled by the behaviour of the person are viewed more as underserving and worthy of sympathy and pity (Weiner et al., 1988). In contrast, conditions such as AIDS, obesity, drug abuse or homelessness are more likely to elicit

social stigmatization and they fail to evoke pity for being perceived as onset-controllable and subjects viewed as mentally or behaviourally responsible for their misfortune. In conclusion, downward, assimilative social comparisons are more likely to elicit pity and sympathy (Cuddy, Fiske, Glick, 2008).

Although not addressed by the model, compassion is conceptually related to pity and is an important prosocial emotion.

Buddhist scholar Geshe Thupten Jinpa (Jazaieri, Jinpa, McGonigal et al., 2013), who developed the Stanford compassion cultivation training, defined compassion as a multidimensional process comprised of four key components: (1) an awareness of suffering (cognitive/empathic awareness), (2) sympathetic concern related to being emotionally moved by suffering (affective component), (3) a wish to see the relief of that suffering (intention), and (4) a responsiveness or readiness to help relieve that suffering (motivational). Compassion therefore contains the intentional and motivational aspects to help. For this reason it is similar to pity in that the subject of the emotion is seen suffering or having a misfortune and he or she is not seen as responsible or deserving of that suffering. Compassion however is different from pity in the sense that it additionally comprises the readiness to help the target.

2.1.13.2 The complex nature of schadenfreude

Schadenfreude, on the other hand, is opposite of pity and compassion in that the target is seen as deserving of their misfortune. Shadenfreude, also referred to as malicious glee, is the distinctive pleasure people derive from others' misfortune (Wang, Lilienfeld, Rochat, 2019) and can also stem from social comparison. According to a new, comprehensive model of schadenfreude by Wang and colleagues (2019) there are three underlying social psychology theories that can be integrated in one comprehensive motivational framework. The aggression theory of schadenfreude puts emphasis on the intergroup dynamics of rivalry and competition. Cikara and colleagues (2011) found that witnessing the rival team's loss elicited pleasure and activated the ventral striatum, the brain's reward-processing region in sport fans. Importantly, the pleasure upon witnessing the rival's loss correlated positively with their level of aggression towards the other team. This aspect emphasizes the importance of intergroup interactions that have the potential to provoke intergroup competition and aggression. The social justice theory of

schadenfreude (eg. Feather, 1989/2008) focuses on the role of perceived deservingness in eliciting this emotion. Feather argues that schadenfreude is a justice-based emotion that is felt by individuals who believe that one's negative outcomes are deserved resulting in experiencing delight when this person gets their just deserts. Lastly, the envy theory of schadenfreude posits the role of social comparison.

Smith and colleagues (1996) argue that both schadenfreude and envy can be derived from social comparison whereby envy stems from upward social comparison, as discussed earlier, and is linked to a sense of inferiority while schadenfreude is a result of downward social comparison and is linked to a sense of superiority. An envious person enjoys the misfortune of the envied person either because it enhances the envious person's self-evaluation (van Dijk and Ouwerkerk, 2014) or because it reduces their envy through feelings of relief (Rothbart, 1973). Both explanations emphasize the importance of self-evaluation as a potential cause for this emotion.

The findings in relation to self-esteem and schadenfreude also support the importance of self-evaluation. Feather (1989) found that individuals with low self-esteem are more inclined to experience schadenfreude than those with high levels of self-esteem. Further investigation revealed (Dijk, Koningsbruggen, Ouwerkerk and Wesseling, 2011) that the relationship between self-esteem and schadenfreude was mediated by perceived self-threat. It was also found that reduced self-threat and self-affirmation resulted in reduced schadenfreude in an experimental setting. In a developmental research by Steinbeis and Singer (2013) 7-13 year old children participated in a reward –punishment task with an anonymous child partner. Their findings showed that children felt more positive in a self-won-other-lost condition compared to the both-won outcome and they felt more negative in a self-lost-other-won condition compared to the both-lost outcome measured by a visual analogue scale on feeling happy or sad. Both envy and schadenfreude appeared at age seven and decreased with age hypothetically as children sense of fairness increased.

Frijda's (1986) motivational approach to emotions emphasized the appraisal of the relevance of the antecedent events to an individual's goals, motivations and concerns gives rise to emotions. Based on this, Wang and colleagues' (2019) motivational model of schadenfreude states that this emotion arises from the schadenfroch's appraisal of antecedent events (involving others' misfortune) in relation to their concern for self-evaluation (rivalry schadenfreude), social justice (justice schadenfreude) and social

identification (aggression schadenfreude). The authors argue that the three motivational foci are qualitatively different. Rivalry and aggression schadenfreude are self-oriented with a concern for self-evaluation and self-enhancement while justice schadenfreude puts emphasis on the affective states of the sufferers as the schadenfroch's primary goal is to ensure that individuals who violate social justice receive punishment (Wang, Lilienfeld and Rochat, 2019).

2.1.14 Testing the SCM in an interpersonal setting

The authors of the Stereotype Content Model emphasize that the principles of SCM are universal, therefore they are valid in the interpersonal context as well (Cuddy, Fiske, Glick, 2008). This was tested and evidenced by Russell and Fiske (2008) in two studies with university students. They measured perceived warmth and competence of an either anonymous other (in study 1) or a trivia challenge team partner (in study 2). An important question was how these intergroup differences could be translated into an interpersonal setting. Instead of group membership, cooperation and competition was manipulated and served as independent variable that was hypothesize to affect perceptions of warmth. As expected, targets in the competitive condition received significantly lower warmth ratings compared to their cooperative counterparts.

The competence dimension was operationalized by social class status in study 1 (manipulating high and low status information on teammate's parents' occupation) and by random assignment to 'boss' or 'subordinate' roles in study 2. As hypothesized, low-status targets received significantly lower competence ratings than high-status ones so the principles of the SCM were supported also in the interpersonal setting. According to the authors, one of the most striking findings of their research was that the perceptual differences occurred despite the fact that their basis was patently arbitrary (in study 2 the status manipulation involved shuffling the boss and subordinate role cards and the competition manipulations were simply the experimental instructions regarding the design of the outcome in a short-term game. In other words, in the competition condition only the winner member of the team had the right to participate in a lottery, in the cooperative condition both team members could participate upon the team's success). In addition, in study 2, participants were explicitly asked whether the structure of the game had influenced their rating which they denied and confirmed that they attributed their

rating to their partners' dispositions completely disregarding the situational factor (Cuddy, Fiske, Glick, 2008). In other words, both in stereotyping and in interpersonal evaluations people fail to understand that perceptions are shaped by social structure. Instead, people are subjected to the fundamental attribution error (Jones, Harris, 1967), a general tendency to overemphasize dispositional characteristics and disregard contextual pressures when interpreting other people's behaviour.

Russel and Fiske (2007) also tested the model's postulates on emotions in the interpersonal setting. Eight theoretically derived social emotions were measured toward their interaction partner: admiration, pride, contempt, disgust, pity, sympathy, envy, jealousy, anger and resentment. In a mixed model ANOVA both status and competition had a main effect on a combined measure of envy and jealousy. Within the dyads, high status team members received more envy/jealousy than low status members. Between dyads, competitive dyads expressed more envy/jealousy than cooperative ones. An interaction between status and competition was also detected revealing that competitive, low-status targets expressed significantly more envy/jealousy than any other condition. No other emotions showed any significant effect.

In summary, it can be concluded that models derived by the Big Two dimensions of social perception identify and confirm affective concomitants. These are cognition-based emotions, in other words, cognitive appraisal plays an important role in the birth of these emotions that is influenced by situational factors (eg. cooperative vs. competitive settings). The role of emotions is also important because they mediate behavioural responses.

2.2 Overview of interpersonal conflict: a social psychology perspective

2.2.1 Evolution of conceptualization of conflict in social psychology

In order to understand the chosen theoretical foundations it is important to glance at the evolution of the perception of conflict in academia. Previously the so-called instrumental or realist approach had been the domineering framework in understanding conflict and conflict management. This approach conceptualized conflict between persons or groups as disputes driven by the parties' interest over tangible, material issues and conflict resolution as a process of coming to an agreement over redistributing contested resources (Pruitt, 1998; Dreu, 2010). Although this framework has been very influential in social sciences (with the formulation of the game theory, for example), it has seen major limitations as it disregarded participants' emotional and psychological needs.

Distinguishing between tangible and intangible issues was proposed by Lewicki and Litterer (1985) who defined tangible issues as concrete elements of a case that tend to be on the formal agenda between disputants, such as money, property, or objectionable behaviour whereas intangible issues derive from participants' psychological needs. Examples of this type include concerns about self-presentation, needs for security or recognition, emotional issues of a relational problem and perceptions of right and wrong related to values and beliefs (Zubek, Pruitt, Peirce, McGillicuddy, Syna, 1992).

Real-life field research contributed greatly to the recognition of the importance of intangible issues in successful conflict management. In Zubek and colleagues' (1992) research content analysing 73 mediation sessions it was found that unaddressed intangible issues were significantly and weakly or moderately negatively correlated with reaching an agreement (-.28), participants' joint problem-solving (-.45) and goal-achievement (-.48) as well as satisfaction with the agreement (-.41) and with the conduct of the session (-.32) (p.560).

An alternative to the instrumental perspective is the psychological needs approach proposed by Burton (1969). It suggests that during conflicts, parties' basic psychological needs are threatened and this leads to certain emotional states and behaviours that prolong and intensify the conflict. Based on this line of reasoning, Shnabel and Nadler (2008)

distinguish between resolution of conflicts and reconciliation. Conflict resolution refers to the process of handling instrumental needs while reconciliation, in contrast, "must include a changed psychological orientation towards the other" (Staub et al., 2005, p. 301, cited by Shnabel and Nadler, 2008). The process of satisfying emotional needs that is key for reconciliation is described as the socio-emotional route to reconciliation by Nadler (2002). In the past decades scientists' attention has turned to focusing on intangible needs (Shnabel and Nadler, 2008) with the aim to explore and identify factors that impede and factors that facilitate reconciliation.

2.2.1.1 Conceptualization of conflict and reconciliation

With the new conceptualization of conflict new and more comprehensive definitions were needed. Authors focusing on the socio-emotional route argue that beyond a change in the relation between participants, an identity change is also an important part of the reconciliation that requires the removal of the negation of the other as an element in one's own identity (Kelman, 2004; Nadler and Shnabel, 2015).

Taking into consideration the identity-related, the relational as well as the structural dimensions of conflict, Nadler (2012) proposed the following definition of reconciliation: "trustworthy positive relations between former adversaries who enjoy secure social identities and interact in an equality-based social environment" (p.294). Nadler emphasizes the interdependent nature of these dimensions. Nadler and Shnabel (2015) cite research in intergroup contexts where it was shown that warm relationships between individuals from adversarial groups (relational aspect) were associated with readiness to forgive the perpetrator group for past wrongdoings (identity-aspect).

2.2.2 The Needs-Based Model of Reconciliation

The Needs-Based Model of Reconciliation (NBMR) is based upon the – later empirically proven – presumption that "in a victimization episode, the impairment to the psychological resources of victims and perpetrators is asymmetrical" (Shnabel and Nadler, 2008, p. 117). Their need- and motivation-focused model identifies different psychological impairments and resulting needs, and they suggest constructive ways of satisfying those needs to foster reconciliation. The model builds on the Social Identity Theory (Tajfel and Turner, 1979) according to which people are motivated to maintain a positive self-concept. Threats to one's positive social identity result in the motivation to overcome this threat and restore a positive identity (Aydin, Ullrich, Siem, Locke, Shnabel, 2019).

The model has three postulates. According to the first one, victims and offenders suffer different damages in a conflict that result in different role-specific (victim or offender) needs. Victims have an impaired sense of power and have an enhanced need to restore that power. Offenders, on the other hand, have an impairment in their public moral image and therefore an enhanced urge to restore it. The second postulate states that if these specific needs are satisfied, both victims and perpetrators show a greater willingness to reconcile. Thirdly, the model implies that such needs are satisfied via "acts of social exchange", in other words in exchange of communication between victim and offender. Victims' needs are best satisfied through messages of empowerment coming from perpetrators, while perpetrators needs can be met by victims' messages of acceptance.

From a communication perspective, participants' needs can be conceptualized as "expectations" from the other in the model (Shnabel and Nadler, 2008). In case of victims, restoration of power can be achieved by perpetrators' explicit acknowledgement of injustice and responsibility taking, expressing guilt and remorse, asking for forgiveness and acknowledging the victim's competence, status or power, in other words by messages of empowerment. In case of offenders, victims' messages of acceptance, such as communicating understanding and empathy as well as granting forgiveness may serve the purpose of restoring perpetrator's public moral image. According to the model, messages of empowerment and messages of acceptance can be considered constructive communication acts, as they foster parties' willingness to reconcile.

The model has been tested in various ways and settings, with methodological variety (role-play, scenario, memory recollection), both in interpersonal (Shnabel and Nadler, 2008) and intergroup experimental settings (eg. Shnabel, Nadler, Ullrich, Dovidio, Carmi, 2009) (for summary, read for example Nadler and Shnabel, 2015). Regarding the findings, the model has been validated in various experiments (see citations below). Both interpersonal and intergroup design showed significant differences among conflict roles, proving the hypothesized distinguished victim and offender needs that once satisfied, a significantly greater willingness to reconcile in both roles can be detected. In most cases, it became evidenced that empowerment messages were more effective in case of victims as opposed to acceptance messages and the inverse was true in case of offenders. Nadler and Shnabel (2015) also point out that research on the needs-based model found consistent patterns across the interpersonal and intergroup levels (cf. Shnabel and Nadler, 2008 and Shnabel, Nadler, Ullrich, Dovidio, Carmi, 2009). It is important to note however that in the intergroup context the model's postulate are valid only in case of direct violence or in case of structural violence only when the disparity between the groups are perceived as illegitimate or unjust (Siem, von Oettingen, Mummendey, Nadler, 2013) otherwise the conflict element is missing.

Real-life conflicts however can be much more complex. The authors and colleagues extended their model and investigated the influence of various moderating factors, such as the level of ingroup involvement, the perceptions of the adversary, insincerity (Shnabel, Halabi, Simantov-Nachlieli, 2014), the source of the message (Shnabel, Nadler, Dovidio, 2014), dual roles (Simantov-Nachieli and Shnabel, 2013) as well as the structural violence or inequalities condition (Siem, Von Oettingen, Mummendey and Nadler, 2013) and stereotypes (Shnabel, Ullrich, Nadler, Dovidio, Aydin, 2013).

2.2.3 Implications of the NBMR on interventions

From an intervention point of view, the original focus of the model was on the restorative power of communication messages exchanged between adversaries. When examining the role of the message source, Shnabel, Nadler, Dovidio, (2014) found that only when the restorative message came from the adversary (that is, empowerment message to the vicim from the offender and acceptance message to the offender from the victim) did it simultaneously increase victims' sense of power *and* trust as well as perpetrators' moral image *and* trust in an interpersonal setting. Increased trust, in turn, led to increased willingness to reconcile. When the role-specific restorative message came from a third party, it efficiently restored victim's sense of agency and perpetrator's public moral image but it was ineffective in restoring trust between the adversaires. In other words, role-specific messages from third parties can heal the psychological harm but they are not sufficient to to repair the relationship and foster reconciliation.

Promoting positive communication and constructive messages between conflict adversaries may be challenging. While the empiric data shows the efficiency of these messages in the experimental setting, manifestations of the magnitude gap perceptual bias in the communication naturally appear between conflict participants in real life (Baumeister, 1996) (see next section). In other words, naturalistic conflict-related communication often includes destructive patterns between adversaries arising from the different perceptual biases and psychological needs between victims and offenders described by the magnitude gap. Magnitude gap induced communication is in line with the Needs-based Model as they reflect efforts to restore impaired sense of agency and morality.

From an intervention perspective the biggest question remains open by the NBMR, that is, what motivates or how to motivate conflicting parties to shift from destructive to constructive communication. This question is usually addressed by conflict-management practices including restorative justice.

For this reason, the NBMR gives little direct guideline about how to help facilitate the exchange of constructive communication messages in real-life conflicts. One area however may benefit directly from the results of the model. In cases where the task is to design public messages to other groups, conclusions of the needs-based model provide

the specifics in terms of content and focus depending on the groups' status and relationship.

When citing Hillary Clinton's statement on the occasion of Hispanic Heritage Month (Sept. 14, 2007) Shnabel, Nadler, Canetti-Nisim, Ullrich (2008) presents her public message that is in line with the postulates of the model (p. 165).

> "I join you in celebrating the achievements and contributions that Hispanics make every day to shape our great nation. While the (Latino) community is diverse, it is united by strong values: faith, family, patriotism, and the belief that if you work hard and play by the rules, you can build a better future for your children."

In this case, an advantaged group's representative conveys a message of empowerment describing the values and abilities of the disadvantaged group.

Despite the above described challenges, the authors of the needs-based model did design intervention-focused research in intergroup setting. Shnabel, Halabi and Noor (2013) focused on conflicting social groups that have a history of both victimization and offence (eg. Arabs and Jews) where members of each group could theoretically identify with both victim and perpetrator roles. A promising direction of interventions have been designed to emphasize conflicting group members' common victim or common perpetrator identity that resulted in increased forgiveness and willingness to reconcile. This is an important result also because it successfully addresses the perplexity of real-life contexts where victim and offender roles are often mixed and where conflicts are prolonged.

2.2.4 Implications of the NBMR on communication

2.2.4.1 Agency in relation to victimization

From a social psychology perspective, decreased sense of agency or power can be closely related to consequences of concrete victimization and structural violence. I argue that reduces sense of agency is a universal impairment to victims regardless of the nature or severity of crime or misfortune. It is because the harm happened against their will and self-determination and it went together with the sense of lost autonomy, as victims were unable to control the situation (to prevent or to escape) (Bolivar, 2010)[4]. In addition, Baumeister (1996) suggests that the experience of victimisation is psychologically more pronounced than the experience of perpetration. A large amount of clinical as well as empiric literature on victims' needs and on the importance of control in healthy functioning is available. Their review is beyond the scope of this work. My focus remains on the communicational aspect of agentic needs and empowerment. My goal is to summarize and review verbal and non-verbal manifestations of needs and messages in research and in real-life contexts with special attention to the complexity of agentic expressions.

2.2.4.2 Verbal manifestations and conceptualizations of agency in conflict

An important goal of this work is to focus on the communication aspect of agency-related content in conflict. Researchers inspired by the needs-based model carried out numerous experiments in various, interpersonal and intergroup setting, to test the efficiency of role-specific restorative messages. In order to better understand the verbal manifestations of the agentic and moral-social content, I reviewed the various ways these domains have been operationalized as general guidelines and as experiment manipulations in concrete interpersonal and in intergroup research contexts. Table 2. summarizes the overview.

[4] Discussing the role of control in cases of offenders can also be relevant especially in cases of involuntary crimes or crimes caused by impulse control deficits, for instance.

Table 2. *Operationalizing messages of empowerment and acceptance in research testing the Needs-based Model of Reconciliation*

	To Victim	**To Offender**
Research design and setting	**Messages of empowerment**	**Messages of acceptance**
General descriptions		
Shnabel and Nadler (2010) p. 7-8.	<u>Seeking justice:</u> – having the perpetrators admit that the victims have been treated unfairly and – apologize for causing this injustice <u>Other ways to empower victims depending on the context:</u> – pointing out its achievement and capabilities <u>In case of a victimized group:</u> – by appealing to its national pride or respect for its culture and values	– Empathy and understanding to feel "rehumanized" <u>Empathy and forgivenessness in other forms:</u> – willingness to form friendships with the perpetrator in the case of interpersonal relations or – willingness for economical or cultural cooperation in the case of intergroup relations (eg. Israelis visiting Germany or buying German products)
Interpersonal level		
Shnabel and Nadler (2008) p. 121. Study 2 Laboratory experiment *"creativity test" in roles of writers(victims) and judges (perpetrator)*	positive feedback on competence (high questionnaire scores)	positive feedback on agreeableness and interpersonal skills (high questionnaire scores)
Shnabel and Nadler (2008) p. 124. Study 3 vignette method *waitron (victim)– superior) superior (perpetrator) roles Boss refuses a request for not to work a shift on New Year's Eve because of an important exam*	accepting responsibility for having caused injustice to the waitron	understanding the fact that the superior had no option but to reject the request and showing empathy for the uneasiness that this must have caused
Shnabel and Nadler (2008) p.127. Study 4 vignette of an unjust event: *"victim" was absent for two weeks*	in a staff feedback meeting the perpetrator praises the victim's professional skills (but said nothing about her interpersonal skills)	in a staff feedback meeting the victim praised the perpetrator's interpersonal skills (but made no mention of her professional skills)

from work and another colleague ("perpetrator") took his/her place		
Intergroup level		
Shnabel et al. (2009) p. 1024 Study 1 intergroup conflict settting *Arabs – Jews (50th anniversary of Kefar Kasem killings)*	"When we (participants' outgroup) discuss harsh and painful events such as the one in Kefar Kasem, we should acknowledge the right of (participants' ingroup) in Israel to be independent and to determine their own fate and future; it is important for us to remember that (participants' ingroup) in Isreal have the right to live in respect and with their heads up, and to feel strong and proud in their homeland."	"When we (participants' outgroup) discuss harsh and painful events such as the one in Kefar Kasem, we should understand and accept our brothers the (participants' ingroup); it is important for us to remember that it is not easy for (participants' ingroup) in Israel to deal with their emotions following the killings and to live with the bloody past and present of our country, and like us they suffered, and are still suffering, an enormous pain."
Shnabel et al. (2009) p. 1026 Study 2 intergroup conflict settings *Germans – Jews (Second World War context)*	"We, the (participants outgroup, Germans) should cherish the contribution of the (participants' ingroup, Jews) to humanity and western culture in many fields of life. We should remember that nowadays, it is the (participants' ingroup's, Jews') right to be strong and proud in their country and have he power to determine their own fate."	"We, the (participants' outgroup/ Jews) should accept that the (participants' ingroup, Germans) and remember that we are all human beings. We should understand that it is not easy for the (participants ingroup, Germans) to live with the past and that the (participants' ingroup, Germans) had suffered a great pain under the Nazi-regime."

Note. Summary table based on Shnabel et al.,2008; Shnabel and Nadler, 2008; Shnabel et al., 2009;Shnabel and Nadler, 2010)

From the summary table it can be concluded that morality restoring messages include general expressions of empathy and acceptance. Messages can vary in their focus of the likeability (warmth) or the trustworthiness (morality) aspects of the communion dimension described by the Big Two. Expressing empathy and understanding as well as rehumanizing the offender were key elements in morality affirmation. Positive feedback regarding the adversary's high agreeableness and interpersonal skills were also among the examples. Similarly, expressions of willingness form or stay in a relationship with the perpetrator were also indicators. Willingness to form a friendship or cooperate with the

other exemplified morality affirmation. In conclusion, it can be said that while message content needed to be tailored somewhat to the concrete context, they were universal in expressing empathy, trust and the wish to relate as well as in affirming the adversary's worthy of love (likeability, moral character).

The review of the agentic message contents revealed two different conceptualizations. The first one was completely uniform and universal and context independent. It comprised expressing apology, responsibility taking and acknowledging the unjust caused. The second category on the other hand was very specific and context-dependent. In the interpersonal setting it entailed affirming the adversary's context relevant competence, abilities or professional skills. In the intergroup context it involved the emphasis on the right for self-determination and independence. Competence-related emotions such as pride and respect were also ascribed. The group's symbolic immortality was also strengthened by acknowledging its cultural values as well as contributions to humanity.

Authors investigating the Big Two dimensions also distinguished a special focus on implication on communication. In their article titled 'The Big Two of agency and communion in language and communication" Abele and Bruckmüller (2013) review findings from a communication perspective. They also have a content and lexical focus summarizing traits belonging to the specific domains as well as reporting the analysis of self- and other-descriptions. One of the possible future directions they highlighted included the implications of the Big Two dimensions on attributional patterns. Namely, to investigate the effect of the actor and the observer role may have on others' behaviour descriptions and trait inferences as opposed to the causal nature of the attribution.

2.2.4.3 Non-verbal manifestations of needs

An important tendency appears in the evolution of the investigation of social conflicts inspired by the needs-based model. The focus has shifted from examining verbal expressions of needs and messages to non-verbal conceptualizations and manifestations of agency and communion. Aydin and colleagues (2019) draw attention on the importance of distinguishing between identity definition and identity enactment. Identity definition refers to a cognitive process that involves defining oneself as a symbolic object with particular characteristics and descriptive labels. Identity enactment, on the other hand, refers to behavioural acting out aspects of one's identity (p. 147). In conflict, these identity enactments can be translated into self-presentations and interaction goals directed toward the adversary. The authors argue that the victim status evokes agentic interaction goals that can be translated into acting and appearing assertive and confident in an interaction with the offender. In contrast, the offender status evokes communal goals translating into acting and appearing warm, empathic, cooperative and trustworthy. They conducted multiple experiments in an intergroup setting where different (inherited and acquired) group memberships were evoked in an unjust or illegitimate context. It was found conflict role had a significant effect on participants' interaction goals without the moderating effect of dispositional interaction preferences (in Study 2).

Along similar lines of thought, Bruneau and Saxe (2012) conceptualized restorative responses with empowerment and acceptance *behaviours* as opposed to verbal messages. They proposed that the act of perspective taking, in other words, listening and the act of perspective giving (speaking) can fulfil functions of the restorative messages. The authors presented arguments and confirmed with their results also in an intergroup setting that being in the role of a tolerant and sympathetic listener to the story perspective given by a disadvantaged group member could fulfil the need to be perceived as moral. In addition, it might also provide the benefit of getting to know a new perspective or learning novel information about the other and the other's group. In contrast, they effectively argued that perspective taking might not be equally beneficial for disadvantaged group members as it does not address their agentic impairment. Furthermore, in a structural inequality context, it is also likely that minority groups are already perspective-taking (eg. aware and consume the dominant mainstream narrative) so an intervention asking both groups to engage in empathic perspective taking would have less effect. In two studies the authors

successfully confirmed that disempowered group members' positive attitudes increased significantly more toward the outgroup member only in the perspective giving condition whereas advantaged group members' positive attitudes increased in the perspective taking condition while the control condition (where there was no feedback) had no effect on attitudes. The authors conclude by highlighting the importance of being heard in case of victims.

Importantly, both studies emphasize implications of the findings stating that traditional dialogue programs focusing on building empathy may only benefit the advantaged (offender) group members. When designing interventions it is essential to address victims or disadvantaged group members' agentic needs as well. This implies the identification of participants' status of victim vs. offender, high or low power, advantaged or disadvantaged. In addition, participants' asymmetric needs have to be addressed and different intervention focus need to be applied and tailored to meet parties' psychological and interactional needs.

2.2.4.4 Empowerment: conceptualizations and best practices

The notion of empowerment is defined in form of verbal message contents in the needs-based model. It is important to include definitions from the clinical and practical field as well. In this section, definitions of empowerment are presented together with examples from the praxis.

The term empowerment is conceptualized as a process of returning control. According to Zehr's definition (2005 cited by Bolivar, 2010) empowerment is a way to return power to the victim. Empowerment is defined as an experience of awareness of one's own self-worth and the ability to deal with difficulties (Bush and Folger, 1994) According to Barton (2003) empowerment is the power to choose between alternatives. Referring to restorative interventions, Larson and Zehr (2007) see empowerment as the power to participate but also as the capacity to identify needed resources, to make a decision and to follow through on that decision. An important aspect of empowerment is concluded by Bolivar (2010) that individuals can be best served through active participation rather than passive reception of external help. In Zimmerman's words (2000) an empowerment approach entails "enhancing wellness instead of fixing problems, identifying strengths instead of cataloguing risk factors and searching for environmental influences instead of

blaming victims." (p. 245). On the individual level, psychological empowerment both as a process and an outcome by which individuals obtain the opportunity to control their own destiny. Zimmerman (1995) distinguishes between three components of empowerment:

- intrapersonal component: beliefs about one's own ability to influence different aspects of life, such as feelings of self-efficacy and competence
- interactional component: people's critical awareness of their own social and political environment
- behavioural component: actions that are taken to influence the outcomes

These conceptualizations are in accordance with Strang and Sherman's (2003) summary on victims expectations from the criminal justice system: (1) information (about the crime and about the case), (2) participation (active involvement in the procedure and influence on outcome), (3) emotional restoration and apology, (4) material reparation, (5) fairness and respect throughout the process. To conclude, it can be stated that each author emphasized the importance of regaining power in the process of healing and reconciliation.

Two examples from professional praxis are presented as extensions. The goal is to examine ways in which the above described theoretical notion of empowerment manifest in best practices. Firstly, Herman (1992) cites a gynaecologist who describes how victims' agency can be respected in the context of medical examination of rape survivors.

> "The most important thing in medically examining someone who's been sexually assaulted is not to re-rape the victim. A cardinal rule of medicine is: Above all do no harm… rape victims often experience an intense feeling of helplessness and loss of control. If you just look schematically at what a doctor does to the victim very shortly after the assault with a minimal degree of very passive consent: A stranger makes a very quick intimate contact and inserts and instrument into the vagina with very little control or decision-making on the part of the victim; that is a symbolic setup of a psychological re-rape.
> So when I do an examination I spend a lot of time preparing the victim; every step along the way I try to give back control to the victim. I might say, "We would like to do this and how we do it is your decision," and provide a large amount of information, much of which I'm sure is never processed; but it still comes across as concern on our part. I try to make the victim an active participant to the fullest extent possible."

(Herman, 1992 cites p. 161. Original source indicated as Beneke (1982) *Men on Rape*. New York: St. Martin's Press).

The example provides a number of non-content related agency restorative efforts. Provision of information, active involvement, decision-making are all important elements of empowerment.

Secondly, an institutional example is presented about a well-established "agency sensitive" system is the Canadian National Victim Support Service. Although victims' interest in receiving information from the correctional services was recognized already in 1992, it was in 2007 when the Government of Canada announced the creation of the Federal Victim Strategy based on the amendments in the Commissioner's Directive 784 on information sharing between the victims and Correctional Service of Canada and associated guidelines[5]. A professionally planned process with various stages is offered to Canadian victims. At first, victims are provided thorough information through various channels (personal consultation, webpage, leaflets)[6] about available services. Victims can make an informed choice about whether they wish to become registered in a national victims' database. Information about the benefits as well as about the concerns of registration is also provided. Once registered, a wide range of information can be disclosed to victims according to the Corrections and Conditional Release Act about the offender, the offence, the sentence and additional related information upon request.[7] Registered victims have the right to be notified but it is also their choice. They have the option to choose whether or not they want to be notified directly about offender-related advancements or alternatively, they can appoint another person as a contact. This way they have greater amount of control as they can learn new information when they feel prepared and they can control *when* they want to deal with crime-related issues. Information sharing is two-way, victims are also welcome to share knowledge about the offenders. Victims are offered the possibility to write a Victim Statement to express how the crime has impacted their lives. These statements can include relevant information about the offender along with any safety concerns the victim may have. Writing a victim's statement itself can have therapeutic effects but in the Canadian system it has additional significance. The correctional service considers this information through the course of the offender's sentence (eg. decisions related to the offender's security level; decisions about

[5] Canadian Victim Services http://www.csc-scc.gc.ca/victims-victimes/rvcp-rvpc-eng.shtml

[6] Information on victims' services http://www.csc-scc.gc.ca/victims/092/003006-0001-eng.pdf

[7] Victim notification http://www.csc-scc.gc.ca/victims/003006-0002-eng.shtml

whether the offender should be released on a temporary absence or on a work release; evaluations of the offender's programming needs and overall risk of re-offending, etc.) This way, victims have actual influence on the offender and their say matters. Victims themselves or appointed representatives can present the statement at a Parole Board of Canada hearing. All victims are provided information about available services including counselling and restorative justice.

The Canadian model can serve as a role model for institutional victim support. At first, the general principles were put down in forms of declarations, laws and regulations where the main dilemmas were addressed. According to the principles the system was created. Every step of the process the respect for victims' autonomy and dignity is built in. Victims are provided a wide range of information and are requested to make decisions for themselves. The system treats the victim as a competent and active agent who has influence over the process and indirectly, through his/her statement, over the offender, as well. It respects victims' needs for control, autonomy and tempo. As a final step, in order to sustain the service of high quality, the Correctional Services of Canada launched the National Victim Services Program in 2007. As part of this initiative, thirty new full-time staff positions were established to provide services to victims of offenders serving a sentence of two years or more. The Victim Services Officers work exclusively with registered victims and respond directly to their requests. I personally believe that systems of this kind together with trained professionals can significantly contribute to victims' well-being.

2.2.5 The Big Two dimensions and interpersonal needs: emerging evidence

Abele and Bruckmüller (2013) emphasize that the Big Two content dimensions reflect basic human needs, such as forming and maintaining social connections (associated with communion and social desirability) and pursuing goals and manifesting skills and accomplishments (associated with agency, self-profitability and social utility). While these fundamental dimensions (Abele, Cuddy, Judd, Yzerbyt, 2008) have recently been systematically investigated, their need-based aspects have yet to be researched.

A growing number of evidence suggests that the same kind of content duality that has been observed in social cognition may also be present in relation to interpersonal needs. Early studies arising from the applied field of teamwork efficiency (Schutz, Bales, 1950) proposed three categories originally. Psychologist William Schutz (1958) developed his Fundamental Interpersonal Relations Orientation (FIRO) measure in an effort to understand and predict how efficiently military teams would work together. The fifty-four item questionnaire that measures stable wanted and expressed interpersonal needs were organized in three categories: inclusion (the need for belongingness and interaction), affection (the need for intimacy and friendship) and control (the need for power and influence). Later the validity of the three-category model has been questioned with a growing number of evidence (Wiedemann, Waxenberg, Mone, 1979, Fisher, Macrosson, Walker, 1995) suggesting that there are only two higher-order factors underlying these three concepts. It has repeatedly been found that a general warmth factor (Wiedemann, Waxenberg, Mone, 1979) comprises both inclusion and affection subscales.

Small group interaction analysis by Bales (1950) also confirmed social (warmth) and task (competence) orientation (Fiske, Cuddy, Glick, 2007) and a third dimension that contained the sheer volume of interaction. Fiske and colleagues (2007) argue that the number of interactions are likely to be more salient in the context of live interactions but less salient in more general impression formation.

2.2.5.1 The two-dimensional nature of conflict-related interpersonal needs

Besides investigating trait interpersonal needs, state-like interpersonal needs that arouse as a result of conflict are also important to study. As discussed earlier, in a conflict besides competing over tangible resources, participants experience a threat to basic psychological needs, such as the need for positive esteem and self-worth (Burton, 1969). Kelman (1999) describes two major types of threats that can undermine positive identities in a conflict: "the view of one's self as weak and vulnerable, and the view of one's self as violent and unjust" (p.593.) (Aydin, Ullrich, Siem, Locke, Shnabel, 2019). Aydin and colleagues (2019) argue that this twofold conceptualization of identity impairment in conflict aligns with the Big Two fundamental dimensions of social cognition.

In the description of the Needs-based Model of Reconciliation, the authors derive the postulated role-specific needs of agency and public moral image from the Big Two dimensions (Nadler and Shnabel, 2015) although the two-dimensionality of these needs have not yet been explicitly investigated.

2.2.6 The magnitude gap as impediment of reconciliation

The term magnitude gap (Baumeister, 1996) describes "the usual tendency for perpetrators to perceive their transgressions as less harmful and serious than victims do" (cited by Nwoye, 2009. p. 117). This phenomenon appears to reflect self-serving distortions on the part of both victims and perpetrators (Nwoye, 2009). Perpetrators often avoid feelings of guilt by minimizing the moral implications of their actions or by denying responsibility for them (Mikula, 2002). This contrasts with victims' tendency to emphasize the injustice they suffered and the perpetrator's responsibility for it (Shnabel and Nadler, 2008). Perceptual biases described by the magnitude gap and communication motivated by those biases impede the process of reconciliation. For this reason, communication reflecting magnitude gap towards or between adversaries is associated with the prolongation and sometimes with the escalation of the conflict.

Recent advancements in the field have given birth to a new concept describing destructive dynamics between adversaries called competitive victimhood (Noor, Shnabel, Halabi, Nadler, 2012) that can be related to magnitude gap biases conceptually. Competitive victimhood in the intergroup setting describes efforts of members of groups with a history of a series of past wrong doings to establish that their group has suffered more than their adversary. In other words, group members in this case compete for the victim status that comes with the potential benefit of earning a moral victory or higher ground. The concept has relevance to the interpersonal setting as well. Importantly, engaging in competitive victimhood contributes to the escalation and the prolongation of the conflict, therefore it is considered destructive. The notion is not only related to the magnitude gap concept for both are destructive in their consequences but also because competitive victimhood involves a distorted, self-serving view of the conflict history, as well. In general, it can be stated that while the magnitude gap concept describes distortive perceptions of a victimization episode, competitive victimhood describes similar distortions that pertain to a series of transgressions where involved parties have both been victims and perpetrators in the course of the conflict history. The two concepts however differ in that the magnitude gap postulates about fixed conflict (victim or offender) roles whereas competitive victimhood is about the dynamic competition to 'win' the victim status. Table 3 summarizes the destructive communicational manifestations of need restoration efforts by conflicting parties.

Table 3. *The magnitude gap: Manifestations of agentic and morality impairments in communication as impediments of reconciliation*

Magnitude gap manifestations of agentic impairement	**Magnitude gap manifestations of morality impairement**
a) emphasizing injustice suffered b) emphasizing perpetrator's responsibility c) inducing guilt in the perpetrator d) wish to punish e) wish for revenge	a) insincere apologies b) downplaying or covering up the offense c) blaming the victims d) self-justifications e) refusal to accept responsibility f) condoning (justification of the offence) g) excusing (implying that the offender had a good reason for committing the offense) h) forgetting (implying that the memory of the offense has simply decayed or slipped out of the offender's the conscious awareness) i) denying (suggesting an unwillingness to perceive the harmful injuries that one has incurred) j) competitive victimhood

Note. Summary table based on Exline and Baumeister, 2000 and Nwoye, 2009, Baumeister, Stillwell, Heatherton, 1994, Noor, Brown, Prentice, 2008)

Based on Exline and Baumeister's (2000) studies, victims are much more likely to forgive perpetrators who respond in repentant ways. Their findings show that target respondents expressed greater readiness to forgive those perpetrators who acknowledged that they have committed the offence, confessed wrongdoing, offered sincere apologies, asked for forgiveness, expressed feelings of guilt or sadness or did something positive to "make up" for the offense (Nwoye, 2009).

2.3 An introduction to Restorative Justice

2.3.1 Restorative justice as a practical setting: definition and principles

Similar to theoreticians, practitioners and the legal system also make efforts to structure and categorize the complexity of conflict situations (Pallai, 2011). While affiliated parties in a conflict may think of themselves as victims or offenders or a combination of both, the legal system and the alternative conflict resolution literature make a clear distinction between types of cases. Cases where the involved parties are considered equal (symmetrical) in their status are regulated by Civil Law. Cases where parties are asymmetrical regarding their status, holding either a victim or an offender role, are regulated by Criminal Law. In both civil and criminal cases, the legal procedure focuses mostly on the aforementioned instrumental, tangible needs (Fellegi, 2009). Alternative conflict management approaches also take participants' status into consideration but they always aim to address both instrumental and psychological needs. When the parties are perceived symmetrical, mediation is offered. In cases where actual normbreaking behaviour(s) or criminal act(s) have taken place and involved parties are considered asymmetrical, restorative justice services are recommended (Pallai, 2011) (see Figure 1.)

Restorative justice is an ethos (Gavrielides, 2007), a way of viewing conflict and human relations, in general. It encompasses an approach, a set of principles as well as methodologies to address conflict and wrongdoing. Restorative practices have origins in ancient tribal community conflict resolution rituals and in their institutionalized forms they offer alternative or complementary justice services to the criminal justice system. The definition of the Restorative Justice Consortium (2006, cited by Liebmann, 2007) also reflects that this approach goes well beyond satisfying instrumental needs. "Restorative justice works to resolve conflict and repair harm. It encourages those who have caused harm to acknowledge the impact of what they have done and gives them an opportunity to make reparation. It offers those who have suffered harm the opportunity to have their harm or loss acknowledged and amends made." (p. 25). Hallmarks of restorative justice are the restorative principles that serve as basic values and guidelines for practitioners. They are summarized by Liebmann (2007) as follows: (1) victim support and healing is a priority, (2) offenders take responsibility for what they have done, (3) there is a voluntary dialogue to achieve understanding guided by well-trained and impartial facilitators, (4) there is an attempt to put right the harm done, (5) offenders look

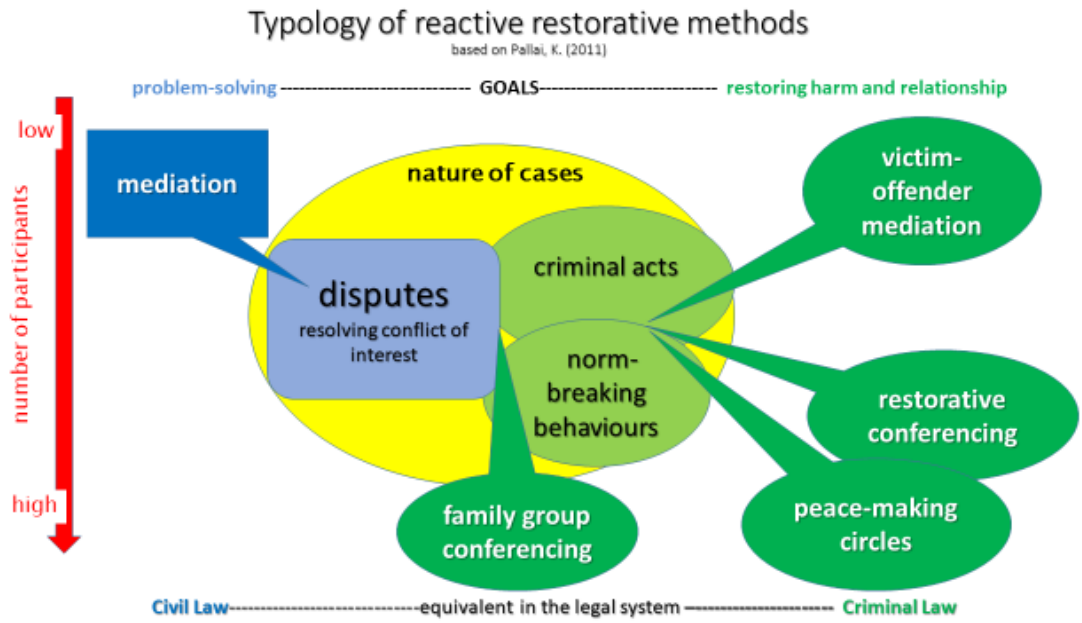
at how to avoid future offending, (6) the community helps to reintegrate both victim and offender.

2.3.2 Restorative justice methods

The common characteristic of all restorative justice interventions is that they are all prepared and conducted in the spirit of the aforementioned restorative principles. Restorative practices build upon various theoretical foundations (eg. Braithwaite, 1989; Nathanson, 1997; O'Connel et al., 1999) and they can be classified by various dimensions. Methods can vary regarding their preventive (eg. focusing on norm- and community-building) or intervening nature (eg. reacting to victimization, wrongdoing, law- or norm-breaking behaviours).

One possible classification of reactive restorative methods is presented by Pallai (2011) as illustrated by Figure 1. below. Depending on the number of participants, mediation can be distinguished from restorative conferencing, circle and family group conferencing. While the former invites primary victims and offenders together with usually one accompanist on each side, the latter forms of restorative methods aim to welcome a larger circle of affected people (eg. secondary victims as well as members of the community). Methods can have specific themes (e.g. family group conferencing) or can be specific in relation to the type of community involved (school, prison, workplace, etc.)

Figure 1. *Typology of reactive restorative methods*



Note. Based on Pallai (2011)

2.3.3 Communication in restorative justice: the language of RJ

The style of communication is of utmost importance in restorative justice. Facilitators use non-judgemental language with all participants and help them in their self-expression. The language of restorative justice reflects the spirit of non-violent communication. It focuses on the communication of needs and emotions in forms of "I messages" (Gordon and Burch, 1974) and avoids blaming language.

In restorative sessions, the focus is on listening to and sharing personal stories, subjective feelings, personal significance and meanings rather than fact-finding. It aims to bring about change by realizing and understanding the other parties' conflict-related experiences, feelings and personal consequences.

Restorative justice also acknowledges the different positions and needs of the different roles involved. In order to foster a constructive dialogue, facilitators use the so-called restorative questions (Figure 2.) during sessions and in the preparation process.

Figure 2. *The language of restorative justice: restorative questions*

RESTORATIVE QUESTIONS

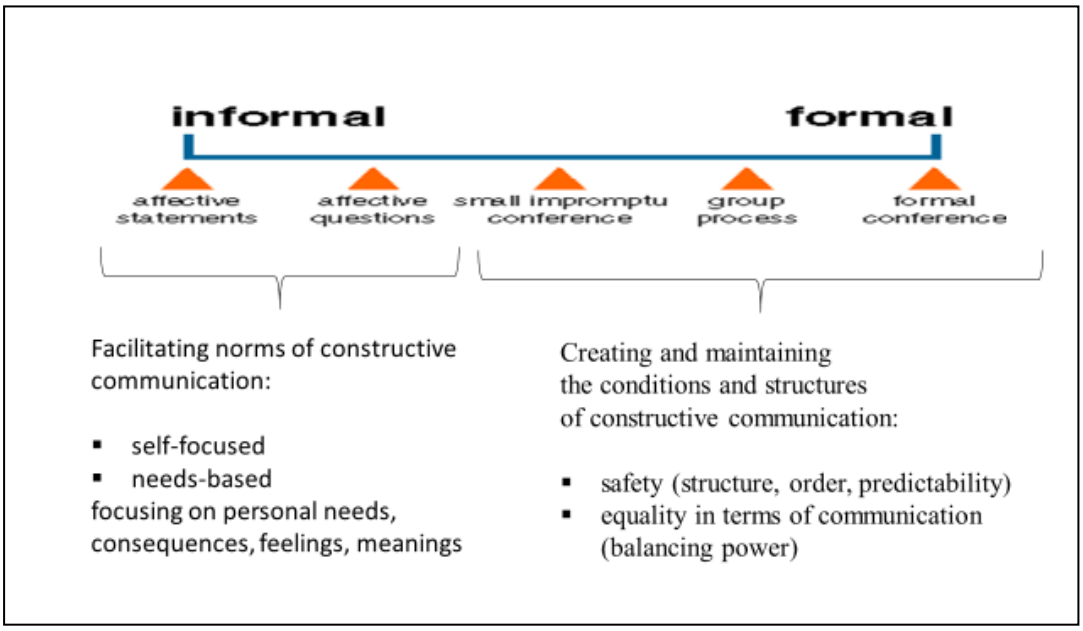
For those who have caused harm - offender -	For people who have been harmed - victim -
• What happened? • What were you thinking at the time? • What have you thought about since? • Who has been affected by what you have done? In what way? • What do you think you need to do to make things right?	• What did you think when you realized what had happened? • What impact has this incident had on you and on others? • What has been the hardest thing for you? • What do you think needs to happen to make things right?

Source: www.iirp.edu

Each question focus on the self as opposed to others or the external world. They facilitate reflections by focusing on participants' internal world (eg. thoughts, feelings, needs, intents, etc.) They are concerned with the past as well as with the present and the future. Focusing on the past help parties' create a coherent narrative and understand the causes leading up to the events. This is then becomes integrated into the common thought process about preventing future reoffending. Focusing on the present and the future help participants addressing the consequences and the most pressuring current issues. The future focus aids preventing reoffence and elaborating a sustainable co-existence and working out a sufficient reparation (Gulyás, Krémer, Z. Papp, 2018).

Depending on the level of institutionalization, a restorative intervention can take form of a spontaneous dialogue (exchanging affective questions and statements), whereas at the other end of the continuum, formal restorative conferences and circles can be found (Negrea, 2010) as shown in Figure 3.

Figure 3. *The restorative practices continuum with own remarks*



Note. Source: www.iirp.edu with own remarks

Affective statements and questions are also important parts of preventive conflict-management practices. Their becoming dominant communication norms help prevent conflict escalations.

An important question of communication is that of forgiveness. It is important to note that while the symbolic act of requesting and granting forgiveness can be an inherent and natural part of the process, it is never explicitly addressed by facilitators or presented as an expected outcome.

2.3.4 Efficiency of restorative justice encounters and the Hungarian legal context

There is a large body of theoretical literature and empiric data regarding what can and should be considered effective process and outcome regarding restorative encounters (Liebmann, 2007). Simple measures consider a session successful if an agreement was reached and if the offender abides by the agreement (Zubek, Pruitt, Peirce, McGillicuddy, Syna, 1992). Similarly, measuring participants' satisfaction with the outcome and with the process has been part of the first wave of efficiency research. Thirdly, offenders' recidivism has also been used as an objective measure of success. In all three areas, a vast

amount of international data proves the high efficiency of restorative sessions (for summary see for example Liebmann, 2007).

Regarding the context of the present research I present the descriptive data of previous years' penal mediation below (Table 4.) In Hungary, mediation in penal matters is possible since January 2007, thanks to the Act LI of 2006 that amended a number of provisions of both the Code of Criminal Procedure and the Criminal Code (Barabás, 2015). As a general rule, mediation is available before the court phase and up until the formal accusation if the offender pleads guilty[8]. The mediation procedure may be initiated by the public prosecutor, the parties and their representatives. Mediation can be applied with regard to misdemeanors against life, physical integrity, health, personal freedom, dignity and certain fundamental rights as well as in cases of traffic misdemeanours, misdemeanours against property or intellectual property and/or felonies punishable by a maximum of three years of imprisonment[9] (Barabás, 2015). Since January 2014, it has been possible to use mediation in cases of petty/administrative offences (Section 82A-82K of Act II of 2012 on the Misdemeanor Code) (Barabás, 2015). The realm of cases where penal mediation can be offered have been revised and broadened ever since.

Active repentance[10] is the ground for exemption of culpability (regulated in Section 29 of the Criminal Code) (Barabás, 2015). For adults, if the mediation procedure is successful, the perpetrator will no longer be punishable and the public prosecutor will close the procedure. This means that an agreement was reached in the mediation and the implementation of the agreement was completed by the offender. Otherwise, the prosecutor will formally accuse the offender.

A prerequisite for mediation is that the offender has to plead guilty – in other words, the perpetrator has to admit to have committed the crime and it is a common ground of understanding in the mediation session. In addition, mediation is excluded in a number of cases, for instance, if the offender is a multi-recidivist committing the similar type of

[8] Mediation remains available if for some reason the possibility of using the mediation procedure only arises during the court phase (Barabás, 2015).

[9] If the crimes mentioned above are punishable by more than three years but no more than five years of imprisonment then, follwing a successful mediation procedrue, the sentence may be reduced without any limitations. For juvenlile offenders there is a uniform upper limit of a maximum of five years of imprisonment to allow for mediation (Section 107 on the Criminal Code) (Barabás, 2015)

[10] Reparation is not limited to restitutions of a financial nature. It may include any other activity, including an apology, if the activity is accepted by the victim (Barabás, 2015).

crime for the second or more time. Mediation is also excluded if the perpetrator commits the crime as a member of a criminal organization or if the crime results in death (Section 29(3) of Act C of 2012 in the Criminal Code) (Barabás, 2015).

The following table (Table 4.) presents statistics of the efficiency of penal mediations in Hungary.

Table 4. *Efficiency of penal mediations in Hungary*

Penal mediation (year)	2007	2008	2009	2010	2011	2012	2013	2014	2015
Number of cases	1765	2872	3065	3275	3950	4660	4844	4738	4838
Agreement reached (%)	88	80	79	80.4	82	78	83.5	84.4	81
Agreement completed (%)	88	91	92	92.9	89	92	83.8	86.7	91

Note. Source: Office of Justice via email as a response to data request[11]

As the table shows, in the period between 2007 and 2015 the percentage of reached agreement varied between 78 percent to 88 percent of mediations and these agreements were completed by offenders in between 83.8 percent up to 92.9 percent of the cases that had reached an agreement. It can be concluded that the ratio of both reaching agreement and offenders' adherence are very high. The high ratio of offenders' successfully fulfilling the agreement is reasoned to be the result of a joint decision making process where offenders are also involved (internal motivation to comply). In certain countries, like Hungary, non-compliance results in the continuation of the court procedure which can also serve as a motivation for perpetrators to comply (external motivation).

The rate of applying mediation varies significantly between countries measured by the number of yearly cases. Barabás (2015) argues that these differences also reflect the so-called 'human factor' (p.390), in other words, professionals' attitude and willingness to apply mediation influence the number of cases referred to mediation (see also Fellegi's

[11] Since 2019 the data is publicly available at http://igazsagugyiinformaciok.kormany.hu/partfogo-felugyeloi-szolgalat Download: „Kapcsolódó Anyagok"

2009 research on Hungarian judges' attitudes toward mediation). The number of cases has been on the constant rise since the introduction of the procedure in Hungary. This is referred to as a success story by Barabás (2015).

The second wave of efficiency research was born due to authors urging for a more nuanced understanding and conceptualization of efficiency, reparation and the restorative experience in general (for example, Bolivar, 2010). As a result, new conceptualizations emerged suggesting various dimensions of victims' experiences in restorative encounters and their healing. Strang and colleagues (2006) for example evidenced that victims of severe crimes who met their offenders face to face in a restorative session showed significant decrease in fear and anger as well as increased empathy towards their perpetrator. Angel's (2005) research showed that victims' post-traumatic stress symptoms significantly reduced after participating in a restorative intervention. While data-collection in this field is challenging, due to the sensitive nature of the investigation, more research is needed to better understand mechansims that may help or halt victims' healing in a restorative process.

3 Research 1. Social Cognition, Emotions, Attributions, Needs and Reconciliation in Interpersonal Conflict: a Quasi-Experiment

3.1 Research goals and design

3.1.1 Research goals

As presented above, ample theorization and empiric evidence show the laws of social cognition and their emotional, attributional and behavioural implications in interpersonal and intergroup context in general and with regards to specifics (eg. differences in status, in competitive-cooperative settings or in social comparison). There is however little research conducted on social cognition in active, ongoing interpersonal conflict.

On the other hand, the postulates of the Needs-based Model of Reconciliation (NBMR) (Shnabel and Nadler, 2008; Nadler and Shnabel, 2015) have been widely tested in interpersonal and in intergroup conflict contexts but in most cases in laboratory experiments. The applied methodology have most of the time involved indirect feedback from fictitious, anonymous partners that have often been invisible (Shnabel and Nadler, 2008; SimonTov-Nachlieli and Shnabel, 2014). While laboratory experiments are crucial to manipulate the experimental conditions and establish the causal linkage, investigating the relevance of the needs-based model in an externally more valid context may also be important at this stage.

The first goal of this study therefore regards the context of the investigation. The aim of the research is to examine the implications of the postulates of the Dual Perspective Model (DPM) (Wojciszke,, Baryla, Parzuchowski, Szymkow, Abele, 2011; Abele and Wojciszke, 2014) on social perception in active interpersonal conflict. In addition, the study wishes to contribute to the testing of the Needs-based Model of Reconciliation in an ecologically more valid interpersonal setting of a quasi-experiment.

Several authors point out (Nadler and Shnabel, 2015; Fiske, Cuddy, Glick, 2007; Wojciszke, Abele, Baryla, 2009; Abele and Wojciszke, 2019) the multifaceted nature of the Big Two dimensions. They also emphasize the importance of identifying the most informative and the most relevant aspects of the two domains in a given context. The second goal is to conduct a nuanced conceptual investigation establishing and examining various aspects of the same domain in an active interpersonal conflict setting (warmth,

morality, cooperation on Domain 1 and competence, control, strength in Domain 2) that are developed based on the reviewed literature.

The third goal is concerned with the bi-dimensional nature of social cognition and interpersonal needs in conflict. I would like to explicitely analyse the factor structure of conflict-related social perceptions. Based on the reviewed evidence the bi-dimensionality of conflict-related needs can be assumed and tested. Lastly, the structure of trait interpersonal needs is also important to investigate given the diverging empiric data in the field.

I reviewed a large body of literature on competence- and morality –related emotions. In addition, the models cited here (DPM, SCM) also have implications on concomitant emotional patterns. The fourth goal of this study is to contribute to this work by developing and testing a conceptual framework for cognition-based emotions in a mixed motive interdependence (de Dreu, 2010) setting.

3.1.2 Research design

3.1.2.1 A novel application of the prisoners' dilemma paradigm

The prisoners' dilemma paradigm is a classic and widely used form to study mixed motive (containing the potential to both cooperate and compete) interdependence (Dreu, 2010). It is also a widely used simulation exercise in business education to demonstrate game-theory. Building on these two features, I used a variation of the prisoners' dilemma simulation in a quasi-experimental design to create a potential for interpersonal conflict to emerge in a classroom setting in a business education context.

In business education, the prisoners' dilemma simulation involves participating in small teams in multiple rounds and the possibility of face-to-face negotiations in order to maximize the pedagogical outcome. While competition (and winning or losing as a result) is inherent part of the setting, the additional face-to-face negotiations between teams give ground to the emergence of moral and immoral behaviours. The immoral element in this case that provides the potential for a morality-based conflict to emerge naturally (in addition to the competence-based conflict that could stem from competing) when participants' fail to keep their word after a negotiation. If an agreement about using a cooperative strategy was reached between two teams in the negotiation and one or both

teams did not follow through on that, cheating took place. The presence of cheating together with an outcome result pattern (cheaters won, honest teams lost) provided the ground for conflict emergence.

The prisoners' dilemma paradigm I applied in this study provides a setting where Nadler and Shnabel's (2015) conflict roles (victim, offender and dual) can be married with Wojciszke's (1994) four-fold classification of actions resulting from the moral and competence-based interpretation dimensions produce the four conflict roles (shown by Figure 4.)

The conflict roles produced by the four-fold classification of actions developed by Wojciszke (1994) serve as *quasi-independent variables* for this study to which participants were self-selected.

Figure 4. *Integrating the prisoners' dilemma paradigm with the Dual Perspective Model and conflict roles*

		MORAL INTERPRETATION	
		POSITIVE	NEGATIVE
COMPETENCE INTERPRETATION	POSITIVE	Virtuous success *Cooperatives (YY)*	Sinful success *Cheaters (Xy)*
	NEGATIVE	Virtuous failure *Victims (Yx)*	Sinful failure *Duals (XX)*
		⇩	⇩
		Cooperative and moral strategy	Competitive and immoral strategy

Note. Based on Wojciszke,, Baryla, Parzuchowski, Szymkow, Abele, 2011; Wojciszke, 1994 (p. 223) and Shnabel and Nadler (2008)

Virtuous success in this paradigm means symmetrical roles where both parties use a cooperative YY strategy resulting in both teams' winning morally (not cheating after the negotiation).

Virtuous failure in the simulation results in becoming a victim where the team agrees on a cooperative strategy in the negotiation and follows through (using a Y strategy) while their team partner does not (by implementing an X strategy). This results in the victim team's losing while complying with the moral norms (virtuous failure) and the cheater team to win (sinful success). This role is asymmetrical in the sense that victim teams necessarily have a cheater counterparts.

Sinful success is the characteristic of cheater teams who agree on using a cooperative Y strategy with their partner team during the negotiation but do not follow through on that implementing a competitive X strategy and committing therefore the act of cheating. This results in them becoming winners and their partner becoming losers.

Lastly, teams in both victim and perpetrator roles (dual roles) can be characterized by sinful failure where both teams agree to follow a mutually beneficial Y cooperative strategy during the negotiation but none of the teams keep their word resulting in both teams losing as well as committing the immoral act of cheating. Just like the role of cooperatives (virtuous success), being in the dual role is also symmetrical. This means that the exact same thing (cheating and losing) is done by the team at question and by their partner team.

3.1.2.2 Quasi-experimental design

Another aspect of the research design was the use of a quasi-experimental setting which involved participants' *self-selection* into various conflict roles (victim, cheater, both and cooperative). In other words, randomization of participants assigning to conflict role was omitted. This feature of the study makes it impossible to control for potential confounding variables that might influence self-selection. On the other hand it provides the benefit of increasing external validity by ensuring that participants' perceptions, emotions and behaviours are authentic.

I argue that working with one's own classmates provided higher level ecological validity. While the outcomes of the exercise were symbolic (symbolic gains and losses) the relational dynamics were real. From the competence aspect, the social comparison was encoded in the setting (students might have been proned to engage in social comparison with their team partner regarding winning or losing, high and low scores). From the

morality aspect, threat to one's public moral identity in case of cheating was inherent part of the setting. When teams engaged in immoral behaviour (cheating) in a real-life context like this they potentially took on the risk of endangering their social and moral image.

I argue that this research setting is relatively adequate to model certain types of real life community (school or workplace) conflicts. In particular, it models situations where loosely-related units (teams) work in a competence-based setting (eg. study for grades, play in sports teams, work for profit or promotion) in a mixed motive interdependence context (when it is up to them whether they cooperate, eg. share resources, help one another, or compete with each other). This study did not involve group membership or differences in status. In other words, students or student groups in schools as well as co-workers in workplaces can be in similar situations.

Additionally, because of the quasi experimental design it was even more important to take into consideration potential moderating factors that might influence the results. In the conflict literature it is emphasized that the nature and the closeness of the relationship between participants play an important role in forgiveness for example (McCullough et al., 2009). Level of acquaintance therefore was an important factor to measure. Additionally, team cohesion between members of the same team was hypothesized to have an influence on the dependent measures therefore it was included in the questionnaire.

Regarding the strategies used in prisoners' dilemma settings, social value orientation has been proposed as a moderating factor. Social value orientation is defined as the weights people assign to outcomes for the self and others in allocation tasks (Messick and McClintock, 1968; Stouten, Cremer, Dijk, 2005). Individuals can vary regarding their concern in interdependent situations. Prosocials tend to maximize joint outcomes whereas individualists and competitors focus on maximizing their own self-interest (Dreu and Lange, 1995). It is important to note that this notion has only been applied in the realm of experimental games and it is assessed by behavioural measures of the so-called decomposed games. This measurement technique involves a series of outcome distributions by the subject between themselves and a hypothetical other. Although it has been demonstrated to have good internal consistency and test-retest reliability (as Dreu and Lange, 1995 cites) its validity is restricted to experimental contexts of hypothetical

allocations. Situational factors, such as empathy induction can also increase the cooperative strategy in prisoners' dilemma experiments (Batson and Moran, 1999).

From the point of view of this study, I was interested in finding a relevant trait measure that could assess constructs that may be relevant in participants' self-selection into conflict roles. As social value orientation (concerning for both self and other or concerning only for self) was theorized to be a factor in relation to choice of strategy, I decided to implement the interpersonal orientations as trait measure. The Fundamental Interpersonal Relation Orientation Behaviour (FIRO-B) questionnaire (Schutz, 1958) measures stable interpersonal orientations on three dimensions: inclusion (the need for belongingness and interaction), control (the need for power and influence) and affection (the need for intimacy and friendship). It was included in the study for four reasons.

(1) One, based on previous theorization it was plausible to hypothesize that interpersonal orientations may moderate people's preferred strategies in the simulation. For example subjects with a high need for control and low need for affection may prefer to maximize their own outcomes at the expense of others and vice versa.
(2) Secondly, post-conflict state-like interpersonal needs were also planned to be measured (within the framework of the needs-based model) so measuring trait interpersonal needs was a meaningful completion.
(3) Thirdly, from a conceptual point of view, it seemed relevant to test the underlying factor structure of the trait interpersonal needs. The validity of the FIRO-B measure has been questioned with growing results suggesting its two-dimensional nature (Wiedemann, Waxenberg, Mone, 1979, Fisher, Macrosson, Walker, 1995) similar to the bi-dimensionality of social cognition. It was important to test the measure's factor structure to see if support for the bi-dimensionality of interpersonal needs could also be found.
(4) Lastly, the FIRO-B measure was developed and has been widely used in compatibility of colleagues and teamwork development and efficiency. Since our study models work teams including this measure seemed particularly relevant.

3.1.2.3 The pedagogical context of the data collection

The study took place in a pedagogical context where data-collection was added on top of the original educational goals. Since the simulation served not only research purposes but also pedagogical ones chances for follow up data-collection were limited. This is because the session involved not only a debrief of the research but also a short theoretical discussion where students were provided with concepts and cognitive schemes relevant to the game theory as learning outcomes. Since this potentially influenced subjects' ways of thinking about and seeing their experiences I focused on on-the-spot data collection (before the debrief). The follow-up questionnaire contained a trait measure that was unrelated to subjects' previous experiences. The pedagogical take-away was also measured in the follow up but this aspect has not been included in this study.

3.2 Hypotheses

The following section presents the hypotheses of the study. Hypotheses 1 to 4 concern conflict-related other- and self-perception, H5 focuses on outcome-related perceptions. H6 hypothesis group regards conflict-related emotions, H7 is about outcome attributions and H8 concerns behavioural predictions. H9 focuses on pathway analyses. H10 and H11 explores the relevance of the needs-based model regarding conflict-related needs (H10) and the effect of role-specific restorative (empowerment and acceptance) messages (H11). Lastly, H12 investigates hypotheses about trait interpersonal needs. Subhypotheses focus on examining the bi-dimensional nature of constructs.

3.2.1 Hypotheses on other- and self-perception and outcome perception in conflict (H1-H5)

H1: Hypotheses on the bi-dimensionality of other- and self-perception items

Regarding the conceptual nature of other- *(H1A)* and self-perception *(H1B)* in conflict I hypothesize two underlying factors in both cases. It is postulated that items measuring warmth, morality and cooperation will fall on one factor whereas competence, control and strength will fall on a second factor in both cases.

H2: Hypotheses on the group differences in other perception in conflict

Derived by the findings of person perception studies in the interpersonal setting (Wojciszke, 2005; Russell and Fiske, 2008) we hypothesize that conflict roles that apply cooperative (Y) strategies, both in the symmetrical (cooperative) and in the asymmetrical (victim) roles will be perceived significantly warmer by their partners whereas the use of the competitive (X) strategy by duals and cheaters will be perceived as cold. In addition to that, I theorize that perceptions of morality and cooperation will show similar results. I postulate that due to the nature of the transgression, morality will be the most salient dimension showing the most extreme differences between the groups.

H2A: Competence-based other-perception according to conflict roles

Regarding the competence measures I theorize that the winner and loser status will differentiate between conflict roles and competence, strength and control. I postulate that in the asymmetrical (victim-cheater) roles losers (victims) will be perceived as naïve, weak and low control by their team pair whereas winners (cheaters) will be perceived as smart, strong and high control by their partners and that these differences will be significant.

In the symmetrical winner role, cooperatives are hypothesized to be perceived by their partner as highly agentic: smart, strong and high control although not to the same extent as cheaters. Duals however are expected to perceive their dual partners similar to victims' perception of cheaters: high on competence, strength and control.

H2B: Social-moral dimension of other-perception according to conflict roles

Regarding the moral-social dimension I postulate that the presence or absence of cheating will differentiate between the perceptions of others. Cheaters and duals will be perceived significantly lower on the morality dimension than cooperatives and victims. Similarly, I hypothesize that cheaters and duals will be perceived significantly more competitive on the bipolar scale then the rest of the groups and vice versa.

In case of warmth I predict similar pattern however I do not necessarily expect these differences to reach significance. I base this expectation on Wojciszke and colleagues (2009) argument that liking that is closely related to warmth (in fact, Fiske and colleagues, 1999 use the two terms synonymously) is more subjective and depends more on the evaluator and their interest and subjective preferences, in other words, its social sharedness is lower.

H3: Hypothesis 3 on the group differences in self-perception in conflict

H3A: Self-c*ompetence-based self-perception according to conflict roles*

In case of competence-based items, self-perception is also hypothesized to be dependent on the winner and looser status. It is hypothesized that victims will be significantly lower in self-ratings of competence, strength and control while cheaters and cooperatives will rate themselves significantly higher. Cooperatives are also hypothesized to see themselves as agentic on these three items. Duals in this context are also expected to see themselves as agentic, rating themselves high on competence, strength and control.

H3B: Moral-social dimension of self-perception according to conflict roles

Similarly to other-perception, in case of self-perceptions on the moral-social dimension, it is hypothesized that victims and cooperatives will rate themselves significantly higher on morality, cooperation and warmth compared to cheaters and duals.

H4: Hypothesis on within-group pattern of competence (identification of actor or recipient role) and morality

Wojciszke (1994) in an interpersonal setting investigated natural evaluations of self and others in experimental and correlational (memory recollection) studies. These studies found that subjects use either competence *or* morality framing in their natural judgements. In the quasi-experimental setting participants are provided the possibility to rate themselves and their partner team in both morality and competence terms as well as on various related dimensions (warmth, cooperation, strengths and control).

Because of the nature of the prisoners' dilemma paradigm I postulate that competence and morality will emerge as the most salient and most relevant dimensions of self- and other-perception. I hypothesize that in line with Wojciszke's (1994) and colleagues' (Wojciszke, Baryla, Parzuchowski, Szyimkow, 2011) theorization and findings, I will reveal significant differences in the within-group pattern of competence and morality as described by Table 5 below. Perpetrators (cheaters and duals) will identify with the actor role (indicated by high competence) and will rate themselves low on morality due to their transgression whereas victims will identify with the recipient role (indicated by low competence) and will rate themselves high on morality.

Table 5. *Hypothesized self- and other-perception patterns in conflict*

Conflict role	**Self-perception**		**Other-perception**	
	Competence	**Morality**	**Competence**	**Morality**
Cheater *(sinful success)*	*self-perception as immoral actor*		*victim partner perceived as moral recipient*	
	high	low	low	high
Victim *(virtuous failure)*	*self-perception as moral recipient*		*cheater partner perceived as immoral actor*	
	low	high	high	low
Dual *(sinful failure)*	*self-perception as immoral actor*		*dual partner perceived as immoral actor*	
	high	low	high	low
Cooperative *(virtuous success)*	*self-perception as moral actor*		*cooperative partner perceived as moral actor*	
	high	high	high	high

Within the sinful success framework, it is hypothesized that cheaters will evaluate themselves consistent with an actor's standpoint, in other words, they will rate themselves high on competence and low on morality and they will view their partners as recipients of their action (low competence and high morality).

In the virtuous failure setting, it is hypothesized that victims will assume the recipients' perspective in their self-evaluation, showing low competence and high morality whereas they will evaluate their cheater team partners as actors scoring high on competence and low on morality.

In case of dual roles, according to the logic of the model, both self- and other-perception should result in low competence and low morality because both teams lost and both teams cheated. In contrast, I predict that duals in this particular setting will show high competence on both self- and other-perception and low on both self- and other morality. The high competent self-evaluation is hypothesized because duals are likely to compare their result alternatively with that of the victims. Such downward contrastive comparison can reinforce the benefits of the competitive strategy preventing duals from becoming victims. Some duals might even argue that the competitive strategy was a result of a good judgement of the situation and of what can be expected by the partner team (foreseeing

competitiveness and cheating). In other words, duals are likely to see themselves as competent and perceive their dual team partners as actors too.

Lastly, cooperatives are hypothesized to evaluate themselves and their cooperative team partner high on both competence and morality, perceiving themselves and the other as moral actors.

H5: Hypotheses regarding outcome-related perceptions

It is hypothesized that victims will be the least satisfied with their final results and they will perceive the outcome as the most unjust and these differences will be significant in comparison with other groups.

3.2.2 Hypotheses regarding conflict-related emotions (H6)

Hypotheses regarding conflict-related emotions have been formulated based on the reviewed literature. In general, the developed emotional matrix builds on the implications of the DPM and SCM models. Specific emotions are hypothesized based on the literature review (Wang, Lilienfeld, Rochat, 2019; Shnabel, Nadler, Dovidio, 2014; Jazaieri, Jinpa, McGonigal et al., 2013; Micari and Drane, 2011; Wojciszke, Abele, Baryla, 2009; Fessler, 2007; Weiner, 2006; Baumeister, Stillwell, Heatherton, 1994; Stipek, 1983).

H6: Hypotheses regarding conflict-related emotions

It is hypothesized that conflict-related emotions will show a specific pattern according conflict roles (see table 6.) In the developed model emotions are matched with conflict roles based on self-related and an interpersonal dimensions of both competence- and morality.

Table 6. *Hypothesized matrix of conflict –related emotions*

Conflict role	**SELF** **Self-related emotions**		**OTHER** **Interpersonal emotions**	
	Competence-related aspect	**Morality-related aspect**	**Competence-related aspect**	**Morality-related aspect**
Cooperatives	*success (winner)*	*moral (kept promise)*	*success (winner)*	*moral (kept promise)*
	pride self-confidence	(not specific)	respect appreciation	trust
Cheaters	*success (winner)*	*immoral (cheated)*	*failure (loser)*	*moral (kept promise)*
	pride self-confidence rivalry-schadenfreude	guilt bad conscience	pity	compassion
Victims	*failure (loser)*	*moral (kept promise)*	*success (winner)*	*immoral (cheated)*
	shame	(not specific)	intimidation	anger vengefulness resentment contempt distrust
Duals	*failure (loser)*	*immoral (cheated)*	*failure (loser)*	*immoral (cheated)*
	rivalry-schadenfreude	(not specific due to the symmetrical nature of cheating)	(not specific due to the symmetrical nature of cheating)	distrust

Based on the literature review, four intrapersonal achievement-related emotions are identified. Success is associated with higher levels of pride (Stipek, 1983) and self-esteem (Wojciszke, Baryla, Parzuchowski, Szymkow, Abele, 2011) whereas failure is associated with shame (Stipek, 1983). I hypothesize that winners (cooperatives and cheaters) will have significantly higher levels of pride and self-confidence compared to victims.

Competitive settings have the potential to elicit rivalry schadenfreude (Wang, Lilienfeld, Rochat, 2019). Given the differences found by Steinbeis and Singer's (2013) in various win-lose settings, I hypothesize that cheaters are most likely to report higher levels of schadenfreude due to the maximum happiness resulting from self-won-other-lost' condition followed by duals. They will be significantly different from victims (for they are the subject of the misfortune in this case) and cooperatives (for they did not experience

competition). I further hypothesize rivalry and competition to be the main causes of schadenfreude in this study. As in this setting schadenfreude is related to the competence aspect of the self, I expect it to belong to the competence-related emotions conceptually.

As established earlier, morality is not key in the self-perception domain, it is important by default (Wojciszke, 1994; Wojciszke, 2005). Therefore no specific emotions are hypothesized to accompany morally normative behaviours (Weiner, 2006; Skowronski and Carlston, 1987). It is not argued that people do not feel emotions upon acting morally good, I argue that there are no *specific* emotions that are distinctly elicited only by such occasions. In case of immoral behaviour however feeling guilty and having a bad conscience are specific to this case (Baumeister, Stillwell, Heatherton, 1994; Weiner, 2006).

Hypothesized interpersonal competence-related emotions vary according to conflict roles. Based on Wojciszke, Abele, Baryla (2009) I hypothesize that respect and appreciation of the other will be the attributes of cooperatives, while pity (Weiner, Graham, Chandler, 1982; Cuddy, Fiske, Glick, 2008) will be felt by cheaters toward victims. Victims are hypothesized to feel higher levels of intimidation due to perceived competence-theat (Micari and Drane, 2011).

Finally, specific morality-related emotions are hypothesized to be attributes of various conflict roles. Trust is hypothesized to be characteristic of cooperation (Shnabel, Nadler, Dovidio, 2014; Nadler and Shnabel, 2015). Cooperatives will be characterized by higher levels of trust and appreciation felt towards their team partner. Cheaters' other-perceived morality induced emotion is hypothesized to be compassion (Jazaieri, Jinpa, McGonigal et al., 2013). Victims' other-perceived morality induced emotions are hypothesized to be anger, vengefulness, resentment and contempt (Cuddy, Fiske, Glick, 2008) as well as distrust (Nadler and Shnabel, 2015). In case of duals, due to the symmetrical nature of the immoral loss a general distrust is hypothesized. I aim is to test the model conceptually (*H6A*) and via group comparisons (*H6B*).

H6B1: Self-competence-based emotions: pride, self-confidence, shame and schadenfreude

Based on the theorizing I hypothesize that pride and self-confidence will be significantly higher in winners (cooperatives and cheaters) while shame will be significantly higher in victims. Schadenfreude is hypothesized to be significantly higher in cheaters and duals.

Role-specific interpersonal emotions:

H6B2: Cooperative-specific emotions: trust, respect and appreciation

It is hypothesized that cooperatives will show significantly higher levels of trust, respect and appreciation compared to victims, duals and cheaters.

H6B3: Cheater-specific emotions: guilt, bad conscience, compassion and pity

It is hypothesized that cheaters will report significantly higher levels of guilt, bad conscience, pity and compassion compared to victims, duals and cooperatives.

H6B4: Victim-specific emotions: anger, vengefulness, resentment, contempt and intimidation

It is hypothesized that victims will report significantly higher levels of anger, vengefulness, resentment, contempt and intimidation compared to cheaters, duals and cooperatives. In addition to distinctly victimization-related emotions I also hypothesize that victims will show the lowest levels of trust compared to other groups.

H6B5: Dual-specific emotions

Duals are not expected to be the most extreme on any of the emotions. They are expected however to be similar to cheaters in their reported higher levels of schadenfreude and they are expected to be similar to victims in their lower levels of distrust.

3.2.3 Hypothesis regarding conflict-related attributions (H7)

Differences according to conflict role in attribution pattern are hypothesized. Cheaters are hypothesized to attribute their victory to themselves scoring highest on self-attribution. Victims are hypothesized to blame their partner teams indicating the highest score on other-attribution. Duals are expected to attribute their outcome to the nature of the task. Cooperatives are not likely to identify one salient aspect as a main cause of attribution. They are hypothesized to attribute their success to more than one causes.

As an extension, based on Weiner and colleagues (1982) model, it is hypothesized that different attributions will correlate with specific moral emotions. Guilt is expected to be significantly and positively correlated with self-attribution whereas anger is hypothesized to be significantly and positively correlated with other-attribution. Although pity is associated with uncontrollable external misfortunes suffered by the observed target (Weiner, Graham, Chandler, 1982) in this setting it is hypothesized that pity will be positively associated with self-attribution because in a conflict setting pity will be prototypically felt by cheaters toward victims.

3.2.4 Hypotheses regarding reconciliatory attitudes (H8)

H8A: Hypothesis on reconciliatory attitudes according to conflict roles

Willingness to reconcile after conflict is measured by prosocial attitudes towards the partner in interpersonal settings (Shnabel and Nadler, 2008). In this study it is hypothesized that cooperatives will report the highest levels of prosocial attitudes towards their partner due to a lack of an actually experienced conflict. Regarding actual conflicts, Shnabel, Nadler and Dovidio (2014) found differences of victims and offender partners' willingness to reconcile after transgression. In both studies they found that victims' reconciliatory attitudes were significantly lower compared to offenders'. In line with this finding, I hypothesize that victims will be the least willing to reconcile. This assumption is derived from the earlier discussed role of conflict–specific emotions whereas it is postulated that victims will experience the most antisocial emotions, such as anger, vengefulness, resentment and contempt that serve as inhibitors of prosocial behaviour and attitudes. This relation is analysed under Hypothesis 9. I hypothesize that although

cheaters will also be subjected to unpleasant emotions, such as guilt and bad conscience, they will have a less extreme negative influence on prosocial attitudes.

When measured by *actual* prosocial or antisocial (eg. allocation of goods or helping) post-conflict behaviour duals were found to resemble victims (SimantTov-Nachlieli and Shnabel, 2014). This means that they showed antisocial behaviour hypothetically due to higher need for revenge what the authors called the primacy of agency in dual roles. Based on these results we expect duals to be similar to victims in showing lower levels of willingness to reconcile.

H8B: Hypothesis on preferred response to conflict according to conflict roles

Besides measuring context-specific but general prosocial tendencies towards the other team it is important to measure participants' concrete behavioural preferences. Based on the same argument regarding the role of emotions it is hypothesized that victims will prefer emotion-focused behavioural responses such as revenge or avoidance while cheaters will be more willing to choose problem-focused responses such as talking it over with or without a mediator. Duals, for the reasoning detailed above, are expected to be more similar to victims in their preferred responses. Cooperatives are expected to report the highest levels of perception of no conflict and therefore the highest willingness to engage in post-conflict pro-social behaviour.

3.2.5 Hypotheses regarding pathways of cognition – emotion – reconciliation (H9)

H9: Hypotheses on cross-sectional mediational analysis of social cognition – role-specific emotions – reconciliation path

Based on Cuddy and colleagues (2008) and Wojciszke and associates (2009) the role of perception through role-specific emotions are hypothesized to influence prosocial attitudes and willingness to reconcile. I aim to conduct two mediation analyses, one for victims and one for the cheater subgroup. In both cases I hypothesize the other-perception – role-specific emotions – reconciliation path. In each case the dependent variable is willingness to reconcile. As predictor variable in case of victims the perception of the cheater team's (lack of) morality is entered. In case of cheaters, victims' perceived warmth is hypothesized to be the best predictor variable.

Role-specific signature emotions are entered as moderator variables in the model. The hypotheses formulated here rely on the developed matrix of hypothesized emotions (shown by Table 6.) *Signature emotions* are defined as affects that distinguish one group from all the others representing a distinct feature of the conflict role. For victims, the most intense and distinct emotions are hypothesized to be related to the other's morality: anger, vengefulness, resentment and contempt. Given that all of these emotions have the same origin (of the other's immorality) one signature emotion that represents the emotion group needs to be chosen. Given that the reviewed theoretical literatue on moral emotions emphasizes anger as key in interpersonal transgression, it was chosen as a representative of the emotion group. Anger is hypothesized to be negatively correlated with perceived immorality as well as with willingness to reconcile. As Shnabel, Nadler and Dovidio (2014) found trust as a moderating reconciliatory attitudes, I also postulate a significant role of trust in regard to reconciliation.

In case of cheaters, the hypothesized pattern of emotions is different in that there is at least one emotion theorized to be derived from each source (self-related competence and morality as well as other-related competence and morality). As the aim is also to test the emotional model, one representative emotion from each category will be entered into the model and a data-driven approach will be used. Guilt has been theorized to be interpersonal but self-(im)morality related, therefore it is not hypothesized to be related to perceived warmth of the other team. Weiner (2006) theorized guilt to be a motivator of reconciliatory attitudes. This relationship as well as the role of pity and compassion will be investigated using a data-driven approach. Self-aspects of competence based emotions (such as pride, self-confidence and schadenfreude) are not conceptually related to reconciliation therefore they will not be entered in the model. H9A and B summerizes the hypotheses.

H9A: Pathway analysis for victims

In case of victims I hypothesize that perceived morality will elicit anger that will negatively affect victims' reconciliatory attitudes. In addition, based on Shnabel, Nadler and Dovidio (2014) and Nadler and Shnabel (2015) I hypothesize the role of trust to moderate the relationship between perceived immorality and reconciliation.

H9B: Pathway analysis for cheaters

In case of cheaters I hypothesize that perceived warmth predicts willingness to reconcile and this effect will be mediated by cheater-specific emotions. Guilt, pity and compassion as morality-related and interpersonal emotions are planned to be entered in the model and a data-driven approach will be applied to investigate the moderating role of cheater-specific emotions.

3.2.6 Hypotheses exploring the relevance of the Needs-based Model of Reconcilation: needs and messages (H10-H11)

H10: Hypotheses on conflict-related interpersonal needs according to conflict roles

H10A: Conceptual analysis testing the bi-dimensionality of conflict-related state needs

It is hypothesized that conflict-related needs also show a bi-dimensional nature. I postulate that agency-related need items and moral-social need items will result in two factors that will differentiate between agency and moral-social needs.

H10B: Conflict-related needs according to conflict roles

It is postulated that there will be significant differences between victims and cheaters on composite measures of agency-related needs and moral-social needs. Victims will indicate significantly higher levels of agency-related needs whereas cheaters are expected to report significantly higher moral-social needs. Based on the logic of the needs-based model, duals are hypothesized to show high levels of both agency-related and moral-social needs. Cooperatives are omitted from the analysis given that they have not experienced an actual conflict.

H11: Hypotheses on the effect of the empowerment and acceptance feedback messages on reconciliation

Derived from the needs-based model (Shnabel and Nadler, 2008) it is hypothesized that victims' willingness to reconcile will be increased by empowerment messages from cheaters whereas cheaters' reconciliatory attitudes will be increased by acceptance

messages from victims. Duals are hypothesized to show high levels on both agency-related and moral-social needs. SimonTov-Nachlieli and Shnabel (2014) found that duals showed equal willingness to reconcile following both message types. For this reason I hypothesize that both empowerment and acceptance messages will efficiently increase duals' willingness to reconcile.

3.2.7 Hypotheses regarding trait interpersonal needs (H12)

H12A: Conceptual analysis of trait interpersonal needs (FIRO-B)

This study aims to investigate whether interpersonal needs follow similar bi-dimensionality that has been universally found in social perception. It is also of special importance as the FIRO-B measure of trait interpersonal needs has been found to show diverging results regarding its validity and factor-structure. I postulate that interpersonal needs in general also follow a similar pattern despite the fact that Schutz (1958), the author of the questionnaire, developed three conceptually different subscales (affection, inclusion and control). I expect to replicate the findings by Wiedemann and colleagues' (1979) as well as Fisher and associates' (1995) where the FIRO-B measure revealed two underlying higher-order factors that were in line with the Big Two theory including a general warmth (affection and inclusion) dimension and a control factor.

H12B: Hypothesis on trait interpersonal needs to measure individual differences

As explained in the research design, including trait interpersonal needs in this study was important to check for individual differences that could potentially influence preferences that occur during the simulation task. For this reason the six subscales of the FIRO-B measure are planned to be investigated according to conflict roles. I aim to test whether high levels of affection and inclusion (wanted and expressed) are associated with cooperative strategies, in other words with victim and cooperative roles. I also aim to test whether high levels of control is correlated with strategies associated with maximizing outcome (eg. cheaters).

3.3 Method

3.3.1 Participants

The final sample consisted of 402 college students with a mean age of 20.6 (SD=1.6) and with 251 (62.4%) identifying as female of Budapest Business School who participated in the research within the context of their Communication Training or Psychology of Economics courses offered in their first and second year. Level of acquaintance was measured on an 8 point cumulative scale (1 being "never seen them before", 8 being "a relative of mine") and its role had been planned to be investigated. As McCullough and colleagues (2009) argue transgressor's careworthiness and the expected value of the relationship play an important role in forgiveness. It was found that the original sample of 436 participants only 31 subjects indicated acquaintance level of 4 ("hang out outside school time") or above (friends; roommates/dorm mates; significant other or relative). For the sake of obtaining a homogenous population in terms of relational closeness they were excluded from the investigation. In the final sample participants indicated "not having seen the other participants before this course" (N=116), "seen them around but have never talked to them" (N=153) and "we attended some classes together, we chat sometimes" (N=134). An additional 3 outliers were removed due to age. The final sample consisted of 182 teams (22% of which consisted of three members) and 402 individuals.

3.3.2 Procedure

Data collection was ongoing between 2015 fall semester and 2017 fall semester. Students participated in a two-step quasi experiment beginning with a simulation of a variation of the prisoners' dilemma game in the classroom. Students understood that the simulation is part of their curriculum and that participating in the additional research required filling in a series of questionnaires in an anonymous and voluntary fashion. Students were informed that their decision about participation in the research does not affect their grade. Three students communicated that they had had to leave the class earlier therefore they were excluded from the data collection. Apart from them none of the students declined participation in the research. Anonymity was secured by asking participants to use an individual ID together with their chosen team name that served the purpose of connecting the data taken in different time points from the same individual.

Subjects participated in the simulation in small teams. The rationale for this setting was twofold: due to the *individual-group discontinuity effect* described by Wildschut, Pinter, Vevea, Insko and Schopler (2003) the rate of noncooperation is much lower in interpersonal than in intergroup mixed-motive interdependence. In other words, individuals are more generous toward another individual than groups are toward another group, as evidenced by Robert and Carnevale (1997) using an ultimatum bargaining task. In order to achieve the pedagogical and research purposes, a variety of responses needed to be generated which was more likely to happen in a group as opposed to an interpersonal setting. The second reason supporting the use of small groups was based on an ethical consideration: it was important to avoid a non-cooperative strategy to be seen as a personal offense by the participants.

For these reasons, as a first step subjects were assigned into teams of two, in cases of an odd number of students and on two occasions due to a larger class size groups of three were formed. Each team was paired up with another team (their team pair) by the instructor. The criteria in pairing was that team pairs could not sit close to one another to prevent spontaneous communication between them. It was made sure that participants got to learn who their team pair was (they had to administer the other group's teamname and indicate the highest level of acquaintance).

Every simulation was conducted by the researcher herself. After the formation of teams and team-pairs, the instructor introduced the simulation task that consisted of 6 rounds. It was made sure that the simulation was consistently referred to as 'exercise', the word 'game' had not been used in order not to influence participants' interpretations. In each round teams had to manually submit either an X or Y bet to the instructor. Each team was rewarded depending on their opponent team's bet according to the reward matrix shown by Table7.[12]

[12] Two reward matrixes have been tested in previous pilot rounds and this combination seemed to best serve the pedagogical and research purposes.

Table 7. *Reward matrix in regular rounds of the prisoners' dilemma simulation*

Y Y	**X Y**
+5; +5	+10, -10
-10; +10	-5; -5
Y X	**X X**

Note. The cooperative strategy is marked by Y bets, the competitive strategy is reflected by X.

Participants were instructed to imagine as if 5 unit equaled with 5000 HUF (approx. € 15) they could either win or lose but it was made clear that real money would not be involved in the exercise. The reward for Round 4 was tenfold (+/-50 and +/- 100) while the reward for the last round was hundredfold (+/-500 and +/- 1000). Students were not informed about the raise of the reward in advance only right before the actual round.

Before each of the two high reward rounds teams had the opportunity to have a short face to face negotiation with one representative of the opponent team. Teams were free to decide whether or not they wanted a negotiation. After every round the team's result was communicated to them privately and the final scores were shown on the board at the end of the simulation. Teams had to document every round in detail (scores, negotiation details, etc.) on their team sheet (see Appendix 1.) After learning the results students were asked to administer a questionnaire individually (Individual Opening Questionnaire).

In the second phase students were invited to participate in a short empathy exercise where they were asked to imagine themselves in the shoe of the other team and reflect on it with their own team (instructions included "what members of the other team might be feeling now" and "what strategy members of the other team might have followed during the exercise"). After the exercise participants were offered to decide whether or not they would have liked to give a message to their opponent team by filling in a structured feedback questionnaire as a team (Team Feedback Message Questionnaire). After completion the teams handed their feedback message to the other team to read. This phase concluded with the administration of an individual questionnaire (Individual Closing Questionnaire).

Data collection for a control group condition (no feedback given) was planned at a later phase of the research. Unfortunately in the fifth semester of the data collection the study had to be terminated due to external reasons which prevented the data collection for a

control group. For this reason *only a tentative analysis* is provided on the repeated measures.

In the debrief participants were asked to verbalize their experiences followed by a structured discussion on conclusions and the presentation of a short summary of game theory. One session took approximately 90 minutes. Students were asked to fill in a follow–up questionnaire online (Online Follow-Up Questionnaire) one to three weeks after the simulation that contained the FIRO-B measurement and two open-ended questions about learning outcomes.

3.3.3 Measures

3.3.3.1 Quasi-independent variables: conflict roles

In the simulation exercise participants had two occasions to negotiate with each other. Based on the results of the negotiations (cheated or not) as well as their final scores (winner or loser) subjects naturally assumed the role of the perpetrator (cheater), victim (been cheated), dual roles (both victim and perpetrator) and cooperatives (no conflict). These conflict roles serve as quasi-independent variables for this study. Data was obtained from the team sheets where participants documented the results of the six rounds as well as details about the two negotiations during the simulation. Students were required to indicate whether or not they chose to negotiate, which members participated in the negotiations, whether or not an agreement was reached, whether or not they had intended to keep the agreement in the first place (this had to be indicated prospectively not retrospectively on the team sheet) and if it was ultimately kept by them and their partner team. In order to grasp the complexity of the experiences and to be able to group subjects with similar experience qualities a code system with 19 categories was developed (presented in Appendix 2).

As a second step, five final categories were created: cheaters, victims, duals, cooperatives and other. A team qualified as cheater if it had an absolute or relative winning final score and cheated either in the first or in the second or both negotiation rounds. An act was coded as cheating if both teams indicated on their team sheet that during the negotiation an agreement of cooperation (YY) was reached for the following round but both teams documented that one of them did not follow through on that and put an X bet instead.

A team qualified as a victim if their final score reflected absolute or relative losing and their partner team cheated in either the first, second or both negotiation rounds while they kept the agreement (putting a Y bet).

A narrow criteria was decided to be used for dual roles where both teams' final scores had to lie in the negative range (negative draw, relative winner or loser in the negative range) and both teams had had an agreement of cooperation in the first or the second or both negotiation rounds that they both breached at the same time (either after the first or the second or both negotiation). In order to qualify as dual, teams had to betray one another at the same high-deed round creating a symmetrical position based on identical experiences. When a team betrayed the other in the first negotiation round and got

betrayed in the second and vice versa, it was coded as "other" (see Appendix 2). Although conceptually these teams could qualify as duals since they had experienced both roles, the quality of their experiences was postulated to be very different from the symmetrical duals (who betrayed one another at the same time). From a psychological point of view, finishing the simulation as an absolute winner, for instance, after having been betrayed and then successfully betraying the other team or vice versa was considered to be qualitatively very different from realizing that both teams had cheated in a given round. In order to have a clarity in relation to the content of the experiences of the dual role, a narrow criteria was applied.

A team pair was coded as cooperative if both teams' final scores lied in the positive range, there was no history of cheating and there was at least one round of successful negotiation (meaning that both teams reached an agreement of cooperation and both kept their word.) Teams that did not fit any of the previous four categories (for example they did not negotiate even once) were categorized as 'other' (as listed in Appendix 2).

Post-conflict data-collection

The Individual Opening Questionnaire was a paper and pencil measure containing questions about demographics (gender and age), conflict perceptions, self- and other perception measures, conflict-related emotions, attributions and interpersonal needs, reconciliatory attitudes and preferred responses. Participants had to indicate their team outcome as a first task, as a reminder of their winner, looser or draw position. Measures used in this study are presented in Appendix 1.

3.3.3.2 Control and moderator variables

3.3.3.2.1 Conflict perceptions

Manipulation checks of conflict in an experimental setting includes measuring the degree to which participants feel their partner had caused them injustice or felt they had caused their partner injustice on a seven point scale (Shnabel and Nadler, 2008). In this study, a four choice categorical variable measured subjects' perceptions on the existence and nature of the conflict with the aim to compare participants' subjective interpretations with the objective categorization. By answering the question 'Has harm been caused during

the exercise?' participants identified with the role of the victim ('yes, we have been harmed'), the role of the perpetrator ('yes, we have harmed the others'), dual roles ('yes, we have been harmed and we have harmed others') and cooperatives or other ('no harm has been done'). The explicit use of victim and offender labels was avoided because as Dignan (2004) points out, identification with the victim role is a social process and a cognitive decision and even in criminal cases people involved may refuse to identify with those labels. This measure served to compare and validate the objective categorization by participants' subjective self-categorization.

3.3.3.2.2 Level of acquaintance

Level of acquaintance as a potential confiding variable was measured on an 8 point cumulative scale (1 being "never seen them before" 8 being "relative of mine"). Descriptions of the results have been presented above under sample description. After data cleaning described above the sample became homogenous regarding level of acquaintance.

3.3.3.2.3 Team cohesion

Perceived own team cohesion as a potential confiding variable was measured by a unipolar seven point scale item.

3.3.3.3 Quasi-dependent variables

3.3.3.3.1 Self- and other-perception in conflict

Self- and other-perception have previously been measured both by assigning traits as well as by developing questionnaire items that have been adjusted to the context (Wojciszke, 2005; Wojciszke, Abele, Baryla, 2009).

In the interpersonal setting, the authors of the needs-based model (Shnabel and Nadler, 2008) measured sense of power by self-perceptions of feeling strong-weak, having a lot of influence on the interaction or not, having the lower vs. the upper hand as well as similar items on how the partner perceives the subject (eg. "my partner perceives me as weak/strong", etc.) on a seven point scale (p. 119). Public moral image perceptions were measured by perceived self-perception by partners by items like "my partner perceives me as a) being completely moral or not, b) my behavior as 100% appropriate or not, c) my behavior as ethically flawless or not" (p119).

Perception of the self and of the other team therefore were measured by two sets of six bipolar items on a seven point scale ranging from -3 to +3 with the middle being neutral. The descriptors were identical in other- and self-perception, the order of the stimuli was however slightly modified to avoid order bias. Context-relevant adjectives were chosen based on theoretical foundations (Wojciszke, 2005; Nadler and Shnabel, 2015; Cuddy, Fiske, Glick, 2008). The six items measured perceived warmth (warm-cold), competence (naïve-smart), morality (honest-deceptive), strength (strong-weak), control (controlling – lacking control) and cooperation (cooperative –competitive). Self-perception instructions were worded to assess oneself, other perception instructions required assessment of the other team.

3.3.3.3.2 Outcome-related attitudes: satisfaction and perceived fairness

Outcome-related attitudes were measured by a seven point scale item assessing outcome satisfaction and perceived fairness (with 1 being 'not at all satisfied/fair' and 7 being 'absolutely satisfied/fair').

3.3.3.3.3 Conflict-related emotions

Competence-related intrapersonal emotions such as pride, self-confidence, shame and schadenfreude were measured as single items with other filler items on a seven point scale**.** In order to avoid expectation bias they were presented as part of a list of emotions. Conflict-related interpersonal emotions were presented in a separate list where participants were explicitly instructed to indicate their feelings in relation to the other team. The list contained anger, vengefulness, resentment, despise and intimidation (hypothesized to be victims' dominant emotions), guilt, bad conscience, pity and compassion (hypothesized to cheaters' dominant emotions), and trust, appreciation, and respect (hypothesized to be experienced by cooperatives). In this list, caution, envy and jealousy were added to the list as fillers. Each item had to be indicated on a seven point scale with 1 being 'not at all' and 7 being 'to the greatest extent'.

3.3.3.3.4 Outcome attributions

Outcome attributions were measured on three separate seven point scales assessing attributions to self, the other team and the nature of the task. An additional choice was offered to indicate other possible causes.

3.3.3.3.5 Behavioural intent: willingness to reconcile and preferred responses to conflict

Regarding reconciliatory attitudes measures are tailored to the context of the conflict (Shnabel and Nadler, 2008; Nadler and Shnabel, 2015). Willingness to reconcile in various interpersonal experimental settings was measured by prosocial attitudes or behavioural tendencies towards the other, such as willingness to continue working with the partner (Shnabel and Nadler, 2008 p. 122). In this study, willingness to reconcile was measured as a behavioral intention by a seven point scale where participants were asked to indicate their willingness to work together with members of the other team in another task. Preferred behavioural response to the actual conflict situation was measured by a forced choice categorical variable offering revenge, avoidance, informal discussion, formal discussion with a mediator and perceived no harm as options. Subjects were also asked what they would do in a similar real life situation offering revenge, avoidance, informal discussion, formal discussion with a mediator as alternatives.

3.3.3.3.6 Conflict-related interpersonal needs: agency and warmth

Based on the Needs-based Model of Reconciliation (Shnabel and Nadler, 2008) a nine item questionnaire was developed to map participants' conflict-related interpersonal needs. Emotional needs for power/control by the authors of the model were measured by items such as "I would like to have more influence on the test and its procedure" or "I would like to have more power in the role to which I was assigned". In this study I included a similar measure for the need for control and added three more items to measure other dimensions of agency-related needs derived by the cognitive components. This way, need for control (*I would like to have greater influence on the outcome of my team*), need for competence (*I would like the other team to acknowledge my competence*), need for strength (*I would not like the other team to think of me as weak*) and need for worthiness (*I would like the other team to acknowledge that we have been a worthy opponent in this task*) were measured on a seven point scale as agency-related needs.

Various aspects of emotional needs for social acceptance in the NBMR were measured including the need for being understood ("I would like my partner to understand the reasons for my behaviour"), the need to be seen well-meaning ("I would like my partner to know that I did not act out of thoughtlessness") or the need to be seen harmless and a morally good person ("I would like my partner to understand that I am not a harsh person") (p. 119).

I also aimed to map various dimensions of social acceptance needs. Five items were designed to measure need for acceptance (warmth) (*I would like the other team to know that I am a really likable person*), need for morality (*I would like the other team to know that I am an honest and sincere person*), need for understanding (*I would like to share the motives behind our actions with the other team*), need to be seen well-meaning (*I would like the other team to know that our actions were not against them personally*), need to be seen harmless (*I would not like to come across as intimidating for the other team*) on a seven point scale.

3.3.3.3.7 Intervention: Team feedback message questionnaire

Based also on the NBMR a seven item questionnaire was designed to satisfy participants' hypothesized conflict-related needs. The questionnaire was filled in as a team and messages were directed to the other team. Four items on a seven point scale contained statements targeting victims' needs including a message of apology (*We would like to apologize from the members of the other team*), a message of acknowledgement of dishonesty (*We acknowledge that we have not always been honest during the exercise*), a message of recognition of worthiness (*We acknowledge that the other team has been a worthy opponent in this exercise*) and a message of good intention (*We did not intend to hurt the members of the other team during the exercise*). Three items on a seven point scale aimed to address cheaters' needs including a message of acceptance (*We believe that members of the other team are friendly and likeable*), a message restoring moral image *(We believe that members of the other team are fundamentally honest and sincere*), and a message of understanding motives (*We understand why they acted the way they did during the exercise*).

3.3.3.3.8 Repeated measures

A short version of the individual opening questionnaire was administered after the team feedback message intervention that repeated the conflict-related emotions measures and the willingness to reconcile item.

3.3.3.3.9 Dispositional measure: Interpersonal needs (FIRO-B Questionnaire)

A corrected version of the Hungarian translation (published for example in Rudas, 2016) of the Fundamental Interpersonal Relation Orientation Behaviour (FIRO-B) questionnaire (Schutz, 1958) was used to measure stable interpersonal orientations on three dimensions: inclusion (the need for belongingness and interaction), control (the

need for power and influence) and affection (the need for intimacy and friendship) as part of an online follow-up questionnaire. The 54 item measure consists of 6 subscales, each of the three dimensions are measured as expressed (the need to express inclusion, control and affection) and wanted (the need to receive inclusion, control, affection) in interpersonal relations. The measure originated from the need to understand and predict how military teams would work together and has been widely used in the applied field. It is offered as a self-awareness tool in individual one-on-one sessions (eg. leadership development) as well as a tool to assess group functioning and compatibility and it is associated with group performance (Fisher, Macrosson, Walker, 1995). The measure is reported to have good reliability however its validity has been questioned (suggesting that inclusion and affection are related aspects of the same construct measuring general warmth) (Wiedemann, Waxenberg, Mone, 1979, Fisher, Macrosson, Walker, 1995) as discussed above. Fisher and colleagues (1995) propose to relate the FIRO-B dimensions to the interpersonal aspects of the BIG 5 model's extraversion and agreeableness. McCrae and Costa (1989/2010) argue that these personality traits in an interpersonal context are best described by love (affiliation) and status (dominance). In this study FIRO-B questionnaire was chosen to measure relatively stable relational orientations to complement the measurement of state-like needs (warmth and agency) in an interpersonal conflict situation. Each item is scored on a six-point scale. The subscales consist of nine items each. Each item is recoded to a binary zero to one scale according to the scoring sheet published in Appendix 1. This way, each subscale could result in a value of minimum zero to a maximum nine. The measure was part of the online follow up data-collection. The response rate was 86.3 percent.

3.3.4 Data analysis

Group comparisons based on conflict role (cheater, victim, dual, cooperative) were executed using Generalized Estimating Equations (GEE) in SPSS on all conflict-related variables. Non-independence of observations, in other words team effect, was controlled for by entering subjects as repeated measures of teams into the model using an exchangeable working correlation matrix. Model type was either linear or tweedie based on the distribution of the dependent variable. Link function (identity or log) for tweedie model type was based on the skewness of the linked distribution. The main effect of the

conflict role (cheater, victim, dual, cooperative) was investigated. Generalized Estimating Equations Modelling was also used for the repeated measure analysis.

Pathway analyses were performed in AMOS. Conceptual analyses were tested by factor analysis.

The significance level of the results was adjusted for multiple testing, resulting in a $p \leq 0.001$ value. This value was used to determine significance in this study and was marked by '***' in tables and figures. I also indicated tendential relationships that was understood as the range of significance between the traditional consensual p value and the adjusted p value: $0.05 \leq p \leq 0.002$ and they were marked by '^{T}' in illustrations.

3.4 Results

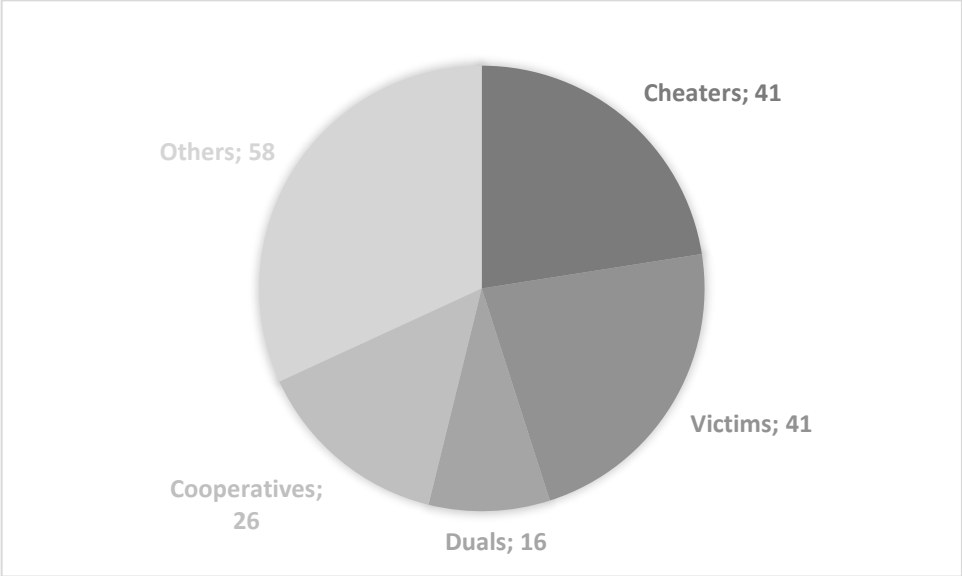
3.4.1 Quasi-independent variables: conflict roles

91 subjects (41 teams) qualified to be cheaters, 88 subjects (41 teams) were coded as their victim counterparts, 34 participants (8 team pairs) fit the narrow criteria of dual roles (being both victim and perpetrator at the same time) and 61 subjects (13 team pairs) assumed the role of cooperatives.

In addition, 128 participants (58 teams) were coded as 'other', among whom 28 students (in 14 teams) did not negotiate at all, 66 subjects (in 28 teams) had ambiguous roles and 34 subjects (in 16 teams) could not be categorized due to lack of data or reported misunderstanding (Figure 5.). For detailed descriptive statistics of categories please see Appendix 2.

Importantly, 68 percent of cheater teams indicated that it was a premeditated strategy from their part to agree on the cooperative strategy with their partner team during the negotiation that they had not intended to follow through. In contrast, all victim teams indicated that they had wished to keep their word and follow a cooperative strategy. It is important to note that this information was not reported in a retrospective fashion, instead, teams had indicated their strategy before the negotiation took place.

Figure 5. *Distribution of conflict roles by teams in the sample*



Note. Numbers of teams are indicated.

3.4.2 Manipulation check and control variables

3.4.2.1.1 Conflict perceptions: validating the objective categorization

A Chi-Square test was performed to investigate whether subjects' self-identification with a conflict role (perceived victim, perceived perpetrator, perceived dual role or no perceived harm) was identical with the objective categorization of conflict roles (of cheaters, victims, duals and cooperatives) presented above. As expected, the test was significant ($\chi^2(9)=332.7$ $p<0.0001$) indicating significant differences between the groups of objective categories. Further investigation revealed that the differences between the groups were in the expected directions. The vast majority of cheaters, victims and cooperatives identified with their assigned roles with the exception of duals.

Amongst duals there was a wider variance of responses detected. 36.4 percent of duals identified with dual roles and the majority (42.2%) reported to have perceived no harm as if the cheating that had occurred on both sides would cancel out each other's effect. In addition, five dual participants reported to feel that harm was done to them and two reported feeling more as a perpetrator. Further analysis investigated whether systemic effects could be accounted for these differences (eg. whether members of the same team reported similar self-categorization that differed from the dual role or whether these differences varied individually). The analysis revealed that the two subjects identifying as perpetrators belonged to different teams. In addition, the five participants indicating being perpetrators belonged to three different teams while their partner teams identified as duals. This shows that in case of duals subjective interpretations show a wider variety of answers compared to other roles which is understandable, given the fact that the duality of roles inherently features a combination of the victim and the offender qualities. In this data no systemic (team-) effect was found so the objective definition for the dual category was retained. In conclusion, subjective self-categorization supported the objective categorization in three of the conflict role groups.

3.4.2.1.2 Perceived team cohesion

In order to investigate moderating effects, perceived team cohesion among team members was also tested. Wald Chi-Square did not reveal any significant difference between cheaters', victims', duals' and cooperatives' perceived team cohesion ($\chi^2(3)=1.069$ $p=0.785$). This means that within-team opinion differences during the simulation showed

no significant difference between the groups and therefore it has not assumed to have exercised a significant influence on the results. Teams in different conflict roles reported an average between 4.28 to 4.75 as their perceived team cohesion on a 7 point scale (with a minimum of zero and a maximum of 6 after recoding) (detailed data is shown in Appendix 4.)

3.4.2.1.3 Trait interpersonal needs (H12B)

Trait interpersonal needs were measured as a background variable to detect a potential systemic effect that may have influenced participants' self-selection into conflict roles (H12B). Kruskal-Wallis tests were performed on the six FIRO-B subscales. As shown in Table 8., none of the subscales showed significant differences between cheaters, victims, duals and cooperatives in relation to their expressed and wanted trait affection, inclusion and control needs.

The six subscales of the measure fell on two higher-order factors (the factor analysis is shown later when testing Hypothesis H12A). The composite measures created by the two factors showed no significant differences amongst conflict roles (Table 8.) These results indicate no systemic difference between conflict role and trait interpersonal needs.

Table 8. *Group comparison (cheaters, victims, duals, cooperatives) of trait interpersonal needs measured by FIRO-B*

FIRO-B Subscale	Kruskal-Wallis H	p
Expressed Affection	2.071^{NS}	0.558
Wanted Affection	1.104^{NS}	0.776
Expressed Inclusion	1.523^{NS}	0.677
Wanted Inclusion	1.806^{NS}	0.614
Expressed Control	2.423^{NS}	0.489
Wanted Control	2.072^{NS}	0.558
Warmth Factor	1.182^{NS}	0.757
Dominance Factor	4.462^{NS}	0.216

Note. N=274 df=3. Significance level is adjusted to p≤0.001 value for multiple testing and is marked by'***'. Nonsignificance is marked by '^{NS}'.

A follow-up test was run on all six subscales including an additional category of participants. 14 teams (28 subjects), who chose not to ever negotiate with their team

partner, were included into the analysis (Appendix 2.) The rationale behind this analysis was that team members with a preference of zero interaction with the partner team may also be characterized by lower levels of expressed and wanted inclusion or expressed control. The five-group analysis yielded no significant difference between groups on either subscale.

In sum, these results indicate that trait interpersonal needs for affection, inclusion and control are unrelated to participants' self-selection into conflict roles (of cheater, victim, dual and cooperative). The results are in accordance with Aydin and colleagues' (2019) results who found that the effect of conflict role on agentic and communal intergroup goals was not moderated by participants' general dispositional preferences for agentic and communal goals in interpersonal interactions. They argue tht this demonstrated that conflict role exerted a distinct and robust influence on goals for interactions with other groups. Since the present study applied a quasi-experimental design, other potential systemic bias can not be ruled out to have influenced role selection.

3.4.3 Quasi-dependent variables

Descrpitve statistics of quasi-independent variables are presented in Appendix 3.

Results of other- and self-perception in conflict

3.4.3.1 Two-dimensionality of other- and self-perceptions in conflict (H1)- *H1A: Duality of other-perception in conflict*

Factor analysis on the six other-perception items was conducted on the complete sample using principal component analysis that suggested a two factor solution explaining 75 percent of the total variance (Table 9.) The model was significant with an adequate Kaiser-Meyer-Olkin value of .763 and with a significant Bartlett's test of sphericity $\chi^2(15)=828.5$ $p<0.001$.

Table 9. *Rotated component matrix for perception of other in conflict*

Other-perception domain	Factor loadings		Communalities
	Factor 1 Morality	Factor 2 Dominance	
Perceived Cooperation	.862		.786
Perceived Warmth	.861		.743
Perceived Morality	.853		.769
Perceived Strength		.871	.761
Perceived Control		.863	.748
Perceived Competence	-.405	.737	.708
Cronbach α	.843 (3items)	.787 (3 items)	
Eigenvalue	2.987	1.527	
% of total variance	49.790	25.451	
Total variance	49.790	75.240	

Note. Principal component analysis with Varimax rotation. Factor loadings are sorted by size. Coefficients with a value below 0.3 are not shown. N=335.

As expected, the conceptual analysis revealed two higher-order factors. Perceived cooperation, warmth and morality fell on the first factor with similar factor loadings which explained about 50 percent of the variance with an eigenvalue of 2.98. I labelled this factor as Morality to emphasize the importance of the moral aspect in a conflict situation with a remark that in the context of interpersonal conflict the cooperation-competition label is also informative (Russell and Fiske, 2008)

The second factor was labeled as Dominance for the strength and control items had the highest factor loadings. As expected, it contained the other team's perceived strength, control and competence explaining an additional 25 percent of the variance with an eigenvalue of 1.5. These results are in accordance with Wojciszke's (1994/2005) findings.

An unexpected result was that perceived competence fell on both factors with inverse valence. It also fell on the Morality dimension with a -.405 factor loading while other competence-related measures (strength and control) did not. Further analysis confirmed that perceived competence was significantly and negatively correlated with morality ($r= -0.493$ $p<0.0001$), cooperation ($r= -0.443$ $p<0.0001$) and warmth ($r= -0.295$ $p<0.0001$). I hypothesize that this result is due to the nature of the task whereas cheating can be seen as a smart act, and the cooperative strategy can be viewed as naïve. Although I postulate that this interpretation pattern is due to the specific feature of this task the parallel between existing cultural beliefs also needs to be emphasized. A prevailing cultural belief in Hungary is that becoming successful oftentimes involves being unethical and being honest is viewed as an inhibitor of personal advancement. The fact that other competence-based dimensions such as perceived strength and control were not inversely related to warmth also supports the postulate that this type of task evoked a particular pattern of interpretation where smartness and cheating as well as naivety and honesty have interweaved.

3.4.3.1.1 H1B: Duality of self-perception in conflict

Factor analysis on the six self-perception items was conducted using principal component analysis on the complete sample that also suggested a two factor solution explaining 66 percent of the total variance (Table 10.) The model was significant with an acceptable Kaiser-Meyer-Olkin value of .671 and with a significant Bartlett's test of sphericity $\chi^2(15)=497.4$ $p<0.001$.

Table 10. *Rotated component matrix for self-perception in conflict*

Self-perception domain	Factor loadings		Communalities
	Factor 1 Morality	Factor 2 Dominance	
Morality	.818		.703
Cooperation	.787		.636
Warmth	.751		.604
Competence	-.573	.472	.550
Strength		.872	.761
Control		.827	.687
Cronbach α	.717 (3 items)	.619 (3 items)	
Eigenvalue	2.471	1.471	
% of total variance	41.179	24.516	
Total variance	41.179	65.69	

Note. Principal component analysis with Varimax rotation. Factor loadings are sorted by size. Coefficients with a value below 0.3 are not shown. N=333.

As shown on the Table 10., self-perception yielded similar results to other-perception. Self-ascribed morality, cooperation and warmth fell on the first factor labelled as Morality explaining 41 percent of the variance with an eigenvalue of 2.47. Self-assessed strength, control and competence fell on the second factor labelled as Dominance explaining an additional 24.5 percent of the variance with an eigenvalue of 1.47. In contrast to other-perception, self-perceived competence had only medium factor loadings on the second factor indicating that it was not a prototypical item of the factor. Similar to the previous results, self-perceived competence fell on both factors with different valence. Correlational analysis confirmed that competence was significantly and negatively correlated to morality ($r= -0.524$ $p<0.0001$), and cooperation ($r= -0.391$ $p<0.0001$) and weakly to warmth ($r= -0.166$ $p=0.002$). In other words, the negative correlation between competence and morality was the largest, similar to the case of other-perception.

This result shows that in case of self-perception in conflict the morality factor explains the larger part of the varience. Although in case of self-perception the morality factor explained 8.6 percent less of the total variance compared to other-perception, it still explains almost twice as much variance as the agentic factor. I argue that in case of self-perception in conflict the morality dimension becomes salient as in the case of other-perception due to the importance of moral character in conflict.

3.4.3.2 Group differences in other-perception in conflict (H2)

As shown in Table 11., using Generalized Estimating Equations, significant differences were found between conflict roles on five other-perception items (perceived cooperation, warmth, morality and perceived competence and control) and a tendential difference was found in case of perceived strength.

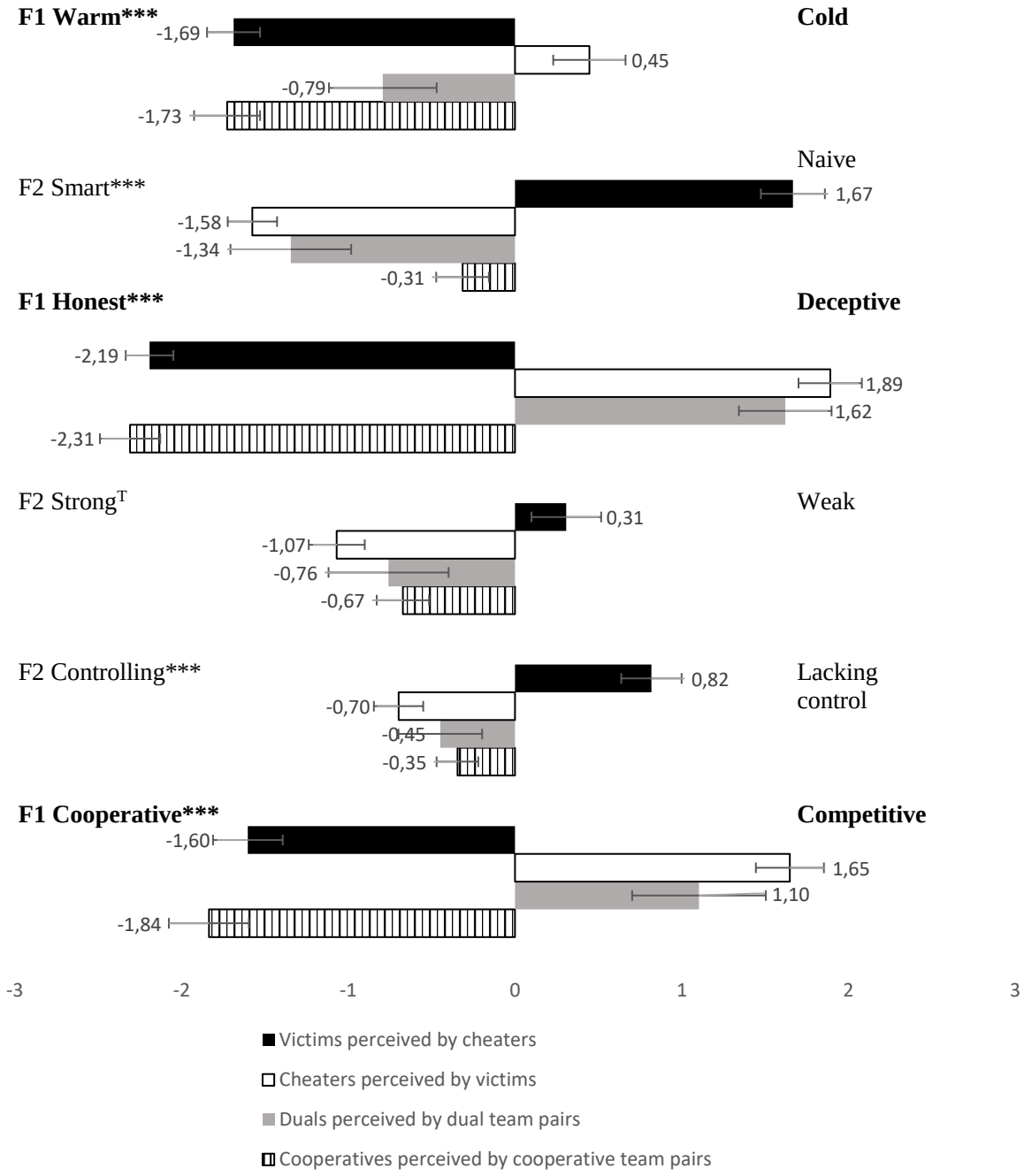
Table 11. *GEE group comparisons (cheaters, victims, duals and cooperatives) of conflict-related perception of the team partner*

Other-perception items	Wald Chi-Square	p	QIC
Perceived Cooperation$_{t\ (comp\text{-}coop)}$	110.359***	<0.0001	412.539
Perceived Warmth$_{(cold\text{-}warm)}$	58.659***	<0.0001	615.41
Perceived Morality$_{t\ (dec\text{-}honest)}$	365.098***	<0.0001	323.884
Perceived Competence $_{(naïve\text{-}smart)}$	133.61***	<0.0001	529.03
Perceived Strength$_{(weak\text{-}strong)}$	17.701^{T}	0.01	592.489
Perceived Control$_{(low\text{-}high)}$	37.15***	<0.0001	414.686

Note. N=233 df=3. Effect of teams are controlled for. Significance level is adjusted to p≤0,001 value for multiple testing and is marked by '***'. Tendential relation 0,05 ≤ p ≤ 0,002 is marked by '^{T}'. Pairwise post-hoc analyses are presented in Appendix 4.

Individual participants' means on the six other-perception dimensions according to conflict roles are presented as illustrations by Figure 6. Significance levels are indicated on the figure based on the GEE statistics presented above (Table 11.) Further investigations of pairwise comparisons were conducted (detailed statistics are presented in Appendix 4.)

Figure 6. *Perception of the team partner in conflict on six items according to conflict role (cheaters, victims, duals and cooperatives)*



Note. Means and standard errors of individual answers are preseneted on bipolar 7 point scales (min: -3 max:3) as illustration. Significance levels indicate the p values of the GEE group comparisons adjusted for multiple testing: $p \leq 0.001$ is marked by '***'. Tendential relation $0.05 \leq p \leq 0.002$ is marked by '^{T}'. Factor 1 (Morality) items are highlighted in bold.

H2A: Group comparisons of the competence based other-perception items

According to post-hoc pairwise analyses, in case of competence-based items (competence, control and strength), perceptions of victims by cheaters were significantly different from all three other roles (victims', duals' and cooperatives' perceptions of their team partner) and victims' perceptions by cheaters also differed in their valence from the other roles in each case.

Cheaters' perceptions of victims' competence differed significantly from cooperatives' perception (M_{diff} = -1.98 $p<0.0001$), duals' perception of their own team partners (M_{diff} = -3.01 $p<0.0001$) as well as from victims' perception of cheaters (M_{diff} = -3.20 $p<0.0001$). The amount of control cheaters attributed to their victim partners differed significantly from cooperatives' perception of their cooperative team partner (M_{diff} = -1.16 $p<0.0001$); duals' perception (M_{diff} = -1.28 $p<0.0001$) as well as from victims' perception of cheaters (M_{diff}= -1.53 $p<0.0001$). A similar pattern was found in case of strength where the difference between victims' and cheaters' perception reached significance (M_{diff} = -1.32 $p<0.0001$). Victims, on the other hand, perceived cheaters as smart, strong and controlling and their perceptions were significantly different from cheaters' (see above).

Cooperatives perceived their cooperative counterparts as rather neutral on the competence and on the control items and only mildly strong. This means that competence –items did not become salient for cooperatives in a situation that contained the potential for conflict inherently.

As expected, duals perceived their dual team partners similar to victims' perception of cheaters on the competence-based dimensions. They perceived other duals as moderately smart, strong and a little controlling. As expected, subjects in the dual role did not perceive their dual partners naïve or incompetent despite the fact both teams ended up in a lose-lose situation. In my reasoning, it is plausible that duals may retrospectively argued that they had cleverly anticipated mutual distrust. This can be interpreted as a realistic, therefore a smart judgement of the situation making both teams rather smart than naïve. Regarding the dimensions of strength and control, since duals were actively cheating (causing active harm) it was not expected that duals would perceive their dual team partners on the weak or low control side.

H2B: Group comparisons of other-perception items on the moral-social dimension

As for the moral-social dimension, as expected, significant differences were found according to conflict roles on all three items between the groups (see Table 11.) Pairwise comparisons (see also Appendix 4.) revealed that those who cheated were perceived significantly lower on the moral-social items than those who did not. In case of morality, victims and duals perceived their team partners as deceptive and this difference was significant. Victims significantly differed in their perception from cheaters (M_{diff} = -4.02 $p<0.0001$) as well as cooperatives (M_{diff} = -4.17 $p<0.0001$) who perceived their partners as honest.

As hypothesized, duals' perceptions were similar to victims' on this dimension. Duals significantly differed in their perception from cheaters (M_{diff} = -3.75 $p<0.0001$) as well as from cooperatives (M_{diff} = -3.89 $p<0.0001$) perceiving their partners immoral significantly greater than the previously mentioned two groups. There was, as expected, no significant difference between victims and duals, neither between cheaters and cooperatives.

Similar pattern was detected in case of perceived competitiveness-cooperation. Victims and duals perceived their team partners as significantly more competitive and vice versa. Victims significantly differed in their perception from cheaters (M_{diff} = -3.31 $p<0.0001$) as well as from cooperatives (M_{diff} = -3.35 $p<0.0001$) who perceived their partners as cooperative. Duals significantly differed in their perception from cheaters (M_{diff} = -2.65 $p<0.0001$) as well as from cooperatives (M_{diff} = -2.80 $p<0.0001$). There was no significant difference in other-perception between victims and duals, neither between cheaters and cooperatives.

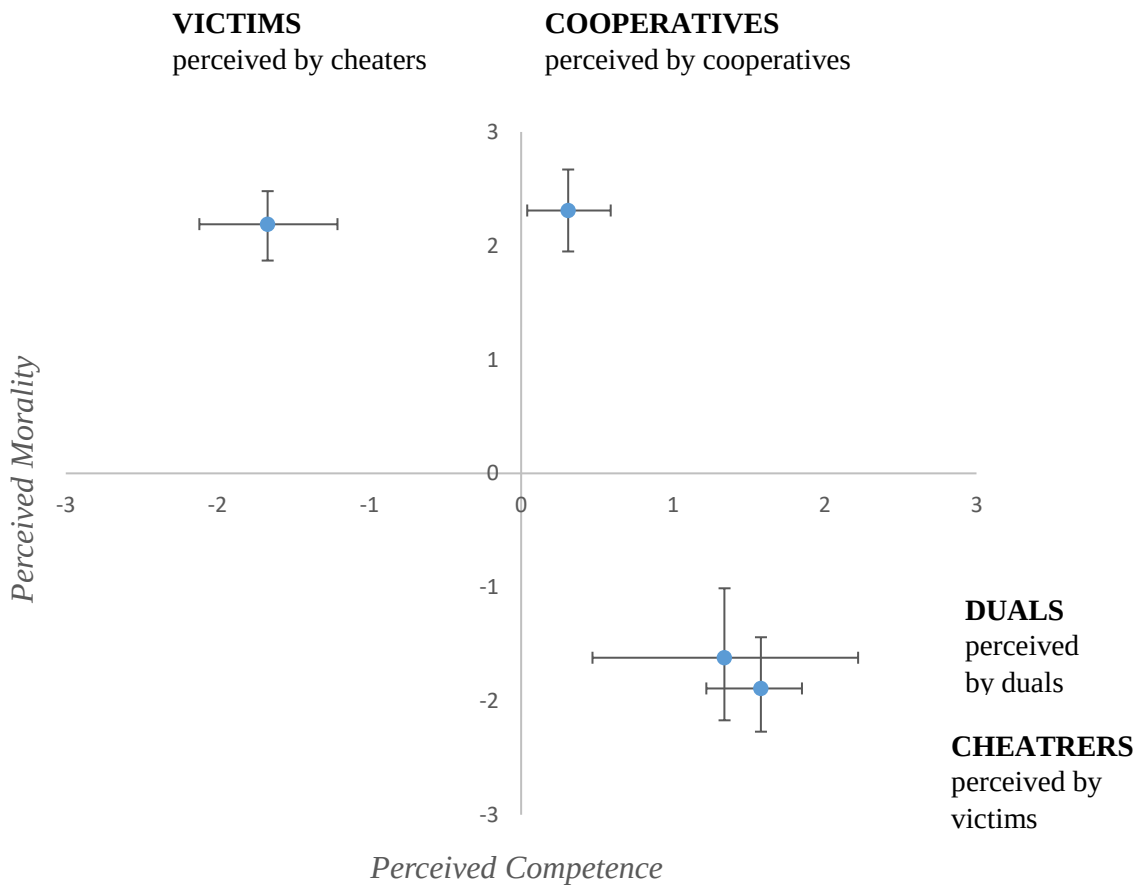
Warmth showed a similar pattern in case of victims. They perceived their partners as cold as opposed to cheaters who judged their victim partners rather warm, and this difference was significant (M_{diff} = -2.21 $p<0.0001$). Victims' evaluation also differed from cooperatives' perceptions (M_{diff} = -2.18 $p<0.0001$). In case of warmth, duals did not follow the previous pattern. They did not see their dual partners as cold but mildly warm and they did not differ significantly from either group.

In sum, it can be concluded that in case of competence-based emotions victims were perceived significantly lower on competence and control and tendentially on strength

compared to other roles whereas cheaters, duals and cooperatives were perceived as competent, slightly strong and controlling by their team partners. In case of the moral-social dimension, cheaters and duals were perceived significantly lower on morality, cooperation and warmth whereas victims and cooperatives were perceived as honest, cooperative and warm.

As expected, competence and morality emerged as most salient dimensions where the most extreme evaluations occurred. Figure 7. below shows groups' mean score according conflict role on the perceived morality- competence two-dimensional space.

Figure 7. *Perceived competence and morality of the team partner in conflict according to conflict roles*



Note. Group means are presented with 95% confidence intervals.

It can be seen from the figure that the four conflict roles fall into three distinct quadrants. Cooperatives are located in the high morality high competence quadrant. Although cooperatives rated their team partner in the positive competence range it is closer to zero meaning that competence was not a salient dimension in cooperatives' partner perception. Cheaters perceived victims in the high morality and low competence quadrant. Victims perceived cheaters as highly competent but low on morality. As expected, duals did not fall in the low-low quadrant, instead they were perceived similar to cheaters as rather smart and deceptive.

The figure also differentiates between cooperation and competition as suggested by Fiske and colleagues (2002) and Russell and Fiske (2008). Perceived high morality demonstrated by victims and cooperatives indicates a cooperative strategy whereas perceived low morality shown by duals and cheaters indicates a competitive strategy.

3.4.3.3 Group differences in self-perception in conflict (H3)

As shown in Table 12. below, using Generalized Estimating Equations, significant differences were found between conflict roles on all six self-perception items (self-ascribed cooperation, warmth, morality, competence, strength and control). Post-hoc pairwise comparisons are discussed below (tables are presented in Appendix 4).

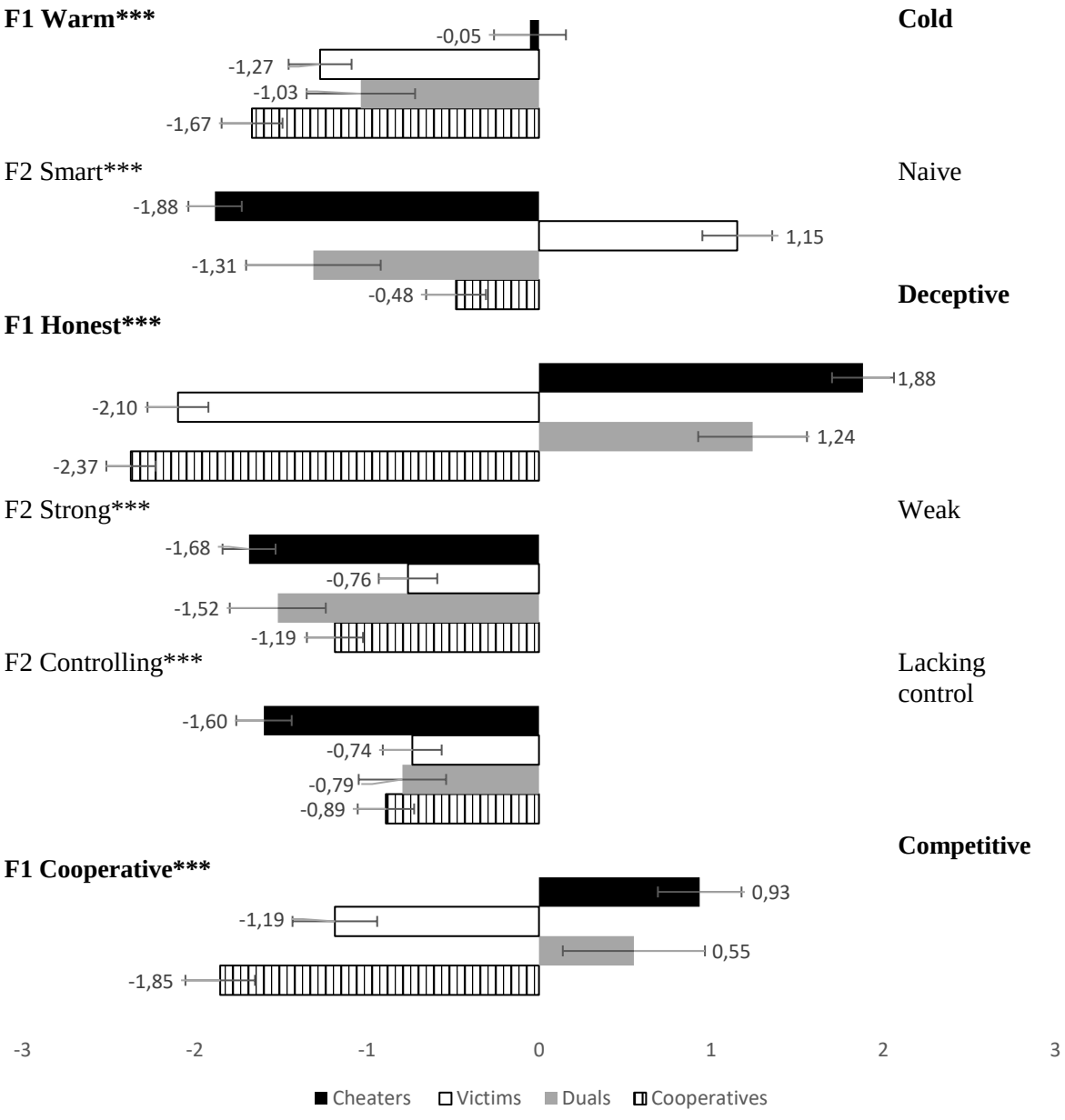
Table 12. *GEE group comparison (cheaters, victims, duals and cooperatives) of self-perception in conflict*

Self-perception items	Wald Chi-Square	p	QIC
Cooperation$_{t\ (comp\ –coop)}$	64.941***	<0.0001	325.481
Warmth (cold-warm)	25.946***	<0.0001	595.71
Morality$_{ti}$ (dec-honest)	362.343***	<0.0001	315.297
Competence (naïve-smart)	146.653***	<0.0001	205.897
Strength (weak-strong)	17.251***	0.001	428.73
Control (high-low)	17.824***	<0.0001	438.395

Note. N=233 df=3. Effect of teams are controlled for. Significance level is adjusted to p≤0,001 value for multiple testing and is marked by '***'. Pairwise post-hoc analyses are presented in Appendix 4.

Individual participants' means on the six other-perception dimensions according to conflict roles are presented as illustrations on Figure 8. Significance levels are marked on the figure based on the GEE statistics presented above (Table 12.) Further investigations of pairwise comparisons were conducted (statistics are presented in Appendix 4.)

Figure 8. *Self- perception in conflict on six items according to conflict role (cheater, victim, dual, cooperative)*



Note. Means and standard errors of individual answers are preseneted on bipolar 7 point scales (min: -3 max:3) as illustration. Significance levels indicate the p values of the GEE group comparisons adjusted for multiple testing. p≤0,001 is marked by '***'. Factor 1 (Morality) items are highlighted in bold.

H3A: Group comparisons of the competence based self-perception items

Regarding self-competence-based items, as hypothesized, victims' self-perception on competence differed in valence and was significantly lower compared to all three groups (compared to cheaters: M_{diff} = -2.99 $p<0.0001$; duals: M_{diff} = -2.45 $p<0.0001$; cooperatives: M_{diff} = -1.61 $p<0.0001$). Cheaters rated themselves the highest on smartness, duals as mildly smart. Interestingly, cooperatives rated themselves as rather neutral in relation to their perceived own competence.

On the other two competence-related items all of the teams rated themselves in the positive range, none of them reported lacking strength or control. Significant differences were still detected in the expected direction: victims differed significantly from cheaters on both self-perceived strengths (M_{diff} = -0.90 $p<0.0001$) and control (M_{diff} = -0.84 $p<0.0001$).

To conclude, competence-based self-perception was based on winner or loser status as hypothesized, where victims' self-ratings were significantly lower compared to the rest of the groups. Cheaters and duals rated themselves high wheareas cooperatives rated themselves as rather neutral on competence-based items. This latter finding was unexpected as it was hypothesized for cooperatives that as winners they would perceive themselves as highly competent.

H3B: Group comparisons of the moral-social dimensions of self-perception items

Regarding self-judgements on the moral-social dimension, as expected, those who cheated (cheaters and duals) rated themselves significantly lower compared to non-cheaters (victims and cooperatives) on the cooperation-competition item as well as on the morality (honest-deceptive) item. In addition, significant differences were found between victims and cheaters, as well as between cooperatives and cheaters in relation to self-ascribed warmth.

On the morality item victims rated themselves as honest differing significantly from cheaters (M_{diff} = -3.93 $p<0.0001$), and duals (M_{diff} = -3.31 $p<0.0001$). Cooperatives rated themselves significiantly higher on morality compared to cheaters (M_{diff}=-4.23 $p<0.0001$) and duals (M_{diff} = -3.60 $p<0.0001$). A similar pattern was found in case of self-rated

cooperation. Victims' self-ascribed cooperation was significantly higher compared to cheaters (M_{diff} = -2.04 p<0.0001) and tendentionally higher than duals (M_{diff}= -1.74 p=0.006). Similarly, as hypothesized, cooperatives self-rated cooperation was significantly higher than cheaters (M_{diff}= -2.67 p<0.0001) and duals (M_{diff}= -2.38 p<0.0001). In case of self-ascribed warmth, the difference between cheaters and victims (M_{diff} = 1.25 p<0.0001) as well as cheaters and cooperatives (M_{diff} = 1.59 p<0.0001) reached significance. Duals did not differ significantly from either group.

In sum, morality-related perceptions differed based on the presence or absence of moral behaviour. Cheaters and duals rated themselves as deceptive and competitive while victims and cooperatives rated themselves as honest and cooperative and they differed significantly from each other. In case of warmth, although none of the groups rated themselves as cold (in the negative range), the difference in self-perceived warmth was still significant between victims and cheaters and between cooperatives and cheaters. An interesting outcome in case of cooperatives that their self-perception on the moral-social items are much more positive than on competence-based items.

3.4.3.4 Within-group pattern of competence and morality in self- and other-perception (H4)

As shown earlier, both in self- and in other-perception competence and morality emerged as most salient perceptual domains. Hypothesis 4 regarding within-group pattern on competence and morality was tested by generalized estimating equation comparing within-group means while controlling for team effects. Figure 9. below illustrates within group patterns showing individual means.

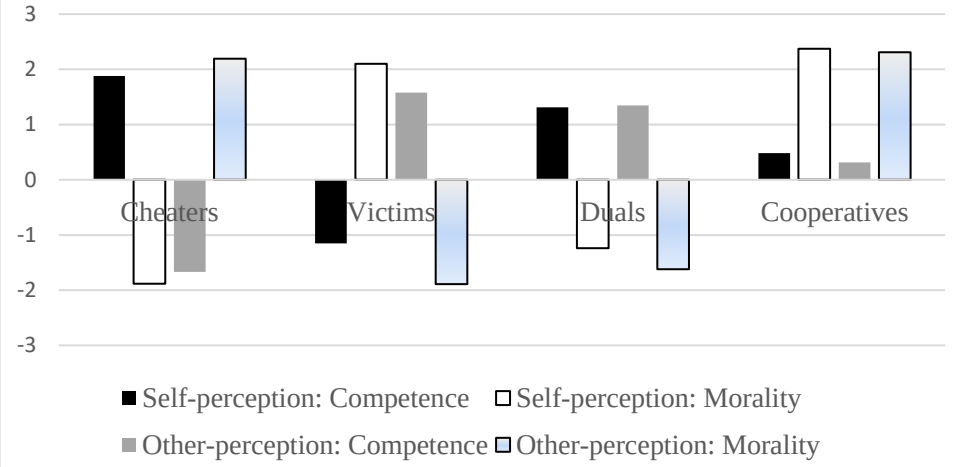
The revealed pattern is in line with the hypothesis (as shown by Table 5.) As postulated, cheaters show high self-competence (in the positive range), low morality (in the negative range) and the opposite is true of their perception of victims (low competence, high morality).

Victims show an inverse pattern, low perceived self-competence (in the negative range) and high self-related morality (in the positive range) while they perceive cheaters as highly competent (in the positive range) but immoral (in the negative range).

As hypothesized, duals' self- and other-perceptions are both in the positive range on competence and they are in the negative range regarding morality.

Cooperatives show the expected pattern in relation to their valence. Both self- and other-perceived competence as well as morality are in the positive range. In terms of their extremity the hypotheses do not hold. It was hypothesized that cooperatives will show high levels in all aspects but there is a clear and significant difference between competence and morality in both self- and other-perceptions as shown by Table 13.

Figure 9. *Pattern of self-and other-perception by conflict role on the competence and morality domains*



Note. Individual means are shown as illustration.

To test the hypotheses (H4) first within-group differences in self-perceptions were investigated. As presented in Table 13. each conflict role showed significant difference between self-perceived competence and morality.

Table 13. *Self-perception on the competence and morality domains by conflict role*

	Self-Competence		Self-perceived Morality						
	Mean	SD	Mean	SD	Mean diff.	SD	Wald Chi-square	p	QIC
Cheaters	1.88	1.36	-1.88	1.58	3.72	2.42	189.85	<0.0001	437.005
Victims	-1.15	1.73	2.10	1.50	-3.21	2.78	75.94	<0.0001	542.368
Duals	1.31	2.11	-1.24	1.70	2.55	3.32	14.38	<0.0001	312.17
Cooperatives	0.48	1.28	2.37	1.05	-1.89	1.74	62.00	<0.0001	163.408

Note. Generalized Estimating Equations Statistics. Team effects are controlled for.

Cheaters significantly differed in their self-assessment of competence and morality (M_{diff}= 3.72; $\chi^2(1)$=189.85 p<0.0001) with a mean of 1.88 (SD=1.36) of competence and a mean of -1.88 (SD=1.58) of morality. Parallel to this, victims significantly differed in their self-assessment of competence and morality (M_{diff} = -3.21; $\chi^2(1)$=75.94 p<0.0001) with a mean of -1.15 (SD=1.73) of competence and a mean of 2.10 (SD=1.50) of morality. Duals significantly differed in their self-assessment of competence and morality (M_{diff} = 2.55; $\chi^2(1)$=14.38 p<0.0001) with a mean of 1.31 (SD=2.11) of competence and a mean of -1.24 (SD=1.70) of morality. Although not expected, cooperatives also showed significant difference in their self-assessment of competence and morality (M_{diff} = -1.89; $\chi^2(1)$=62 p<0.0001) with a mean of 0.48 (SD=1.28) of competence and a mean of 2.37 (SD=1.05) of morality. In sum, self-perceptions differed significantly in each group in the expected pattern. The only exception was the case of cooperatives where no significant difference was expected but it was found.

Results of within-group other-perception comparisons are presented in Table 14.

Table 14. *Other-perception on the competence and morality domains by conflict role*

	Competence		Morality						
	Mean	SD	Mean	SD	Mean diff.	SD	Wald Chi-square	p	QIC
Cheaters' perception of victims	-1.67	1.71	2.19	1.27	-3.83	2.20	181.93	<0.0001	369.432
Victims' perception of cheaters	1.58	1.27	-1.89	1.63	3.48	2.48	109.72	<0.0001	434.356
Duals' perception of duals	1.34	1.95	-1.62	1.50	2.97	2.68	26.66	<0.0001	203.732
Cooperatives' perception of coop.	0.31	1.16	2.31	1.35	-2.00	1.99	54.03	<0.0001	212.055

Note. Generalized Estimating Equations Statistics. Team effects are controlled for.

The results show that cheaters significantly differed in their assessment (M_{diff} = -3.83; $\chi^2(1)$=181.93 p<0.0001) of competence and morality of their victim partner team assigning a mean of -1.67 (SD=1.71) on competence and a mean of 2.19 (SD=1.27) on

morality. In case of victims, they significantly differed in their assessment (M_{diff} = 3.48; $\chi^2(1)=109.72$ $p<0.0001$) of competence and morality of their victim partner team assigning a mean of 1.58 (SD=1.27) on competence and a mean of -1.89 (SD=1.63) on morality. Duals were also found to be significantly different in their evaluations of their team partners (M_{diff} = 2.97; $\chi^2(1)=26.66$ $p<0.0001$) with a mean of 1.34 (SD=1.95) on competence and a mean of -1.62 (SD=1.50) on morality. Although not expected, a significant difference was also found in the case of cooperatives (M_{diff}= -2.00; $\chi^2(1)=54.03$ $p<0.0001$) with a mean of 0.31 (SD=1.16) on competence and a mean of 2.31 (SD=1.35) on morality. In conclusion, the differences regarding other-perception patterns are as expected. One unexpected result is that cooperatives rated their cooperative team partners significantly higher on morality compared to competence although both were in the positive range. This is however in accordance with the DPM model's postulates. When evaluating other, the morality dimension has primacy over competence.

3.4.3.5 Outcome-related perceptions (H5)

As hypothesized, outcome-related attitudes showed significant differences between the groups. Outcome satisfaction was significant ($\chi^2(1)=59.583$ $p<0.0001$) with victims being the least satisfied with their results in the simulation with an average of 2.5 out of 6 being significantly different from cheaters (M_{diff} = -2.40 $p<0.0001$) as well as from cooperatives (M_{diff} = -2.53 $p<0.0001$) and tendentionally from duals (M_{diff} = -1.14 $p=0.046$).

Similar results were found in the case of perceived fairness ($\chi^2(3)=70.047$ $p<0.0001$) with victims indicating the lowest fairness perception with an average of 1.7 out of 6, being significantly different from all three groups (cheaters: M_{diff} = -1.89 $p<0.0001$; duals: M_{diff}= -2.23 $p<0.0001$; cooperatives: M_{diff} = -3.12 $p<0.0001$). For more details (eg. data on SD, please check Appendix 4).

3.4.3.6 Conflict-related emotions (H6)

H6A: Conceptual analysis of conflict-related emotions

The hypothesis regarding the conflict-related emotional matrix was first tested on a conceptual basis. Factor analysis of conflict-related emotions was performed on the complete sample using principal component analysis with Oblimin rotation (Table 15.) The analysis yielded four factors explaining 67 percent of the total variance. The model was significant with an adequate Kaiser-Meyer-Olkin value of .802 and with a significant Bartlett's test of sphericity $\chi^2(120)=3275.3$ $p<0.0001$. In most cases the communalities of the variables were high.

Intimidation, shame, schadenfreude and compassion had a medium level of variance in common with other variables ranging from 42 to 57 percent. Below the factor structure matrix is presented that allows a nuanced investigation of relationships amongst the various emotions.

Table 15. *Structure matrix of conflict-related emotions*

Emotion	Factor loadings				Commu-nalities
	Factor 1 *Victims' profile*	Factor 2 *Cheaters' profile*	Factor 3 *Competence-related intrapersonal emotions*	Factor 4 *Cooperatives' profile*	
Resentment	-.887			-.317	.799
Anger	-.877			-.366	.798
Contempt	-.826			-.369	.717
Vengefulness	-.823			-.326	.694
Intimidation	-.539	.375			.416
Guilt		.901			.826
Bad conscience		.895			.812
Pity		.758			.623
Shame	-.413	.518	-.416		.572
Pride			.807		.702
Self-confidence			.776	.302	.657
Schadenfreude		.338	.496		.445
Appreciation	.336			.878	.779
Respect	.327			.869	.766
Trust				.777	.614
Compassion		.507		.585	.546
Eigenvalue	4.527	3.064	1.940	1.238	
% of total variance	28.293	19.149	12.126	7.738	
Total variance	28.293	47.442	59.568	67.305	

Note. Principal component analysis with Oblimin rotation. Factor loadings are sorted by size. Coefficients with a value below 0.3 are not shown. N=388.

The four factors showed a distinct pattern that is in line with the hypotheses. I gave the factor names based on the theoretical conceptualization. In decreasing order of factor loadings resentment (-.887), anger (-.877), contempt (-.826), vengefulness (-.823), intimidation (-.539) and shame (-.413) fell on factor one. As all of these emotions were hypothesized to be characteristics of victims the factor was named as victims' emotional profile and it accounted for 28 percent of the total variance. It contained victims' theorized role-specific emotions (anger, vengefulness, resentment and contempt) as well as self-competence related shame and other-competence related intimidation. With smaller but with positive valence, appreciation (.336) and respect (.327) also fell on this factor showing inverse conceptual relatedness to the victim factor's items.

The second factor explained 12 percent of the total variance and contained cheaters' role-specific emotions: guilt (.901), bad conscience (.895) as well as other-competence related emotions of pity (.758) and schadenfreude (.338). Shame also fell on this factor with positive valence (.518) as well as compassion (.507).

The third factor accounting also for 12 percent of the variance was named as competence-related intrapersonal emotions as it contained pride (.807) and self-confidence (.776) with high factor loadings as well as schadenfreude (.496) and shame (-.416) with medium loadings. These four emotions were hypothesized to be related to the self-aspect of competence.

Lastly, the fourth factor that explained about 8 percent of the total variance was labelled as cooperatives' profile. It contained appreciation (.878), respect (.869) and trust (.777) with high loadings and self-confidence with a smaller .302 factor loading. Additionally, compassion also fell on this factor (.585) and four of the victim-specific emotions fell on this factor with negative valence and with low levels of factor loadings (anger: -.366, despise: -.369, vengefulness: -.326 and resentment: -.317).

The structure matrix allows us to investigate how each emotion is related to one another. Emotions that were hypothesized to be specific to a conflict role belonged to the same factor. Victim-specific other-morality induced emotions such as anger, resentment, vengefulness and contempt as well as the competence-based intrapersonal shame and the competence-based interpersonal intimidation fell on the same factor with the same valence. Regarding cheater-specific emotions, self-perceived morality induced guilt and bad conscience and other-morality induced compassion as well as the interpersonal aspect of competence-based emotion of pity and self-competence-based schadenfreude belonged to the same factor with the same valence. The fourth factor comprised cooperative-specific emotions. It consists of other-morality induced trust and other-competence-based respect and appreciation as well as self-competence-based pride and self-confidence. From the results it can also be inferred that contempt, anger, resentment and vengefulness are inversely related to respect and appreciation. This finding seems externally valid and it also draws attention to the fact that although respect is hypothesized to be competence-based (eg. Wojciszke, Abele, Baryla, 2009) perceived immorality may be incompetent with feelings of respect and appreciation undermining the target's social utility value.

Before discussing factor 3, let us take a closer look at emotions hypothesized to stem from perceptions of others' competence: pity, intimidation, respect and appreciation. These four emotions are similar to the morality-induced role-specific emotions in their interpersonal nature: they are felt in a context of a relationship, in relation to another person. Therefore they fall on the same role-specific factors. They all belong to their hypothesized emotion group with the highest factor loadings: intimidation belongs to victim-specific emotions, pity belongs to cheater-specific emotions with a valence identical to the factor items. In addition, respect and appreciation belong to the cooperative-specific emotion group with identical valence. Intimidation differs from victim-specific morality-induced interpersonal emotions that can be inferred from the fact that it loads only medium on the factor and it also loads on the cheater-specific emotion factor with an inverse valence. Respect and appreciation belong to the cooperative profile with their highest factor loadings but they are also inversely present on the victims' emotion factor with lower loadings. These patterns signal their potentially differing nature from morality-induced emotions.

Factor 3 contains emotions hypothesized to be related to self-competence. This factor comprises only self-competence-related emotions, such as pride, self-confidence, shame and schadenfreude. Positive emotions such as pride, self-confidence and schadenfreude load on the factor with positive valence, while shame as a negative emotion is presented with a negative valence. If we look at the pattern of these emotions we can see that pride is the prototype emotion of this factor with the highest factor loading (.807). Interestingly, while other competence-related emotions fall on multiple factors, pride loads only on this one. Self-confidence has similarly high factor loading (.776) on factor 3 and as expected, a lower positive amount (.302) is present on the cooperatives' profile. Schadenfreude that is conceptually related to positive emotions of pride and self-esteem has a medium loading on the factor (.496) and as expected, it has a weak positive loading (.338) on the cheaters' profile factor. Lastly, shame has a medium negative loading (-.416) on the self-competence factor indicating an inverse relation to pride, self-confidence and schadenfreude. In addition, shame loads on the victim (-.413) and on the cheater (.518) factors with inverse valence. This means that shame is related to emotions associated with failure and with both aspects of immorality (cheating and being cheated). While this factor does not have the potential to confirm that the emotions it contains are competence-based in nature, it shows that these emotions conceptually differ from other emotions and

that they belong to a separate factor. To conclude, the factor analysis confirms the major points of the hypothesized matrix of conflict-related emotions (see Table 6.) showing that emotions are related to one another in the postulated way according to conflict role, competence and morality.

H6B: Group comparisons of conflict-related emotions

Group comparisons (H6B) were executed using Generalized Estimating Equations (GEE) that allowed the team effects to be controlled for.

H6B1: *Self-competence-based emotions: pride, self-confidence, shame and schadenfreude*

As shown in Table 16. below, group comparisons revealed significant differences amongst conflict roles in case of pride and schadenfreude. Tendentional difference was found in case of self-confidence. In case of shame no significant difference was detected between conflict roles.

Table 16. *GEE group comparisons (cheaters, victims, duals and cooperatives) of conflict- related self- competence –based emotions*

Self-competence –based emotion	Wald Chi-Square	p	QIC
$Pride_t$	19.14^{***}	<0.0001	395.324
Self-confidence	9.987^{T}	0.019	748.0
$Shame_t$	5.56^{NS}	0.135	855.041
$Schadenfreude_t$	24.338^{***}	<0.0001	763.685

Note. N=270 df=3. Effect of teams are controlled for. Significance level is adjusted to p≤0,001 value for multiple testing and is marked by '***'. Tendential relation 0,05 ≤ p ≤ 0,002 is marked by '^{T}'. Nonsignificance is marked by '^{NS}'. Model type is indicated in variabe footnote if not linear. Pairwise post-hoc analyses are presented in Appendix 4.

Further post-hoc pairwise analyses helped investigating the hypotheses. In case of pride winners (cooperatives and cheaters) were expected to report higher levels compared to losers. It was found that cooperatives reported significantly higher levels of pride compared to victims (M_{diff}=1.39 p=0.001) and tendentionally higher levels compared to duals (M_{diff}=1.24 p=0.008). Cheaters were found to report tendentionally higher levels of

pride compared to victims (M_{diff} =0.99 p=0.017) but they were not significantly different from duals. As expected, cheaters and cooperatives did not differ nor did victims and duals in this respect.

In case of self-confidence, the overall tendentional difference between the groups resulted from cooperatives' tendentionally higher levels of self-confidence compared to victims' level of self-confidence (M_{diff} =1.96 p=0.014). The rest of the pairwise comparisons did not reveal significant differences.

Although schadenfreude was an emotion felt by low intensity (means ranging from 0.17 for cooperatives and 1.15 for cheaters) significant differences were found in the expected directions. Cheaters were significantly higher on schadenfreude than cooperatives (M_{diff}= 0.97 p<0.0001) and tendentionally higher than victims (M_{diff} =0.70 p=0.01). Duals also reported tendentionally higher levels compared to cooperatives (M_{diff} =0.54 p=0.047) but did not differ significantly from victims.

Shame was not found to be an emotion where significant differences occurred between groups. Further analysis revealed that this is due to a floor-effect as all of the group means remained below 1 (with a range between 0,24 and 0.69) on a seven point scale between zero to six. I argue that it is because of the nature of the task. Since the task was a simulation exercise it had less potential to elicit shame. I postulate that the symbolic nature of the deed (symbolic gains and losses) and the fact that the outcome had no real-life consequences prevented the results to become self-relevant. This way it is less expected to elicit failure–related emotions. While winning may lead to temporary positive emotions in any setting, failure needs to be self-relevant (Stipek, 1983; Higgins, 1989) in order to trigger unpleasant emotions.

H6B2: Cooperative-specific emotions: trust, respect and appreciation

Cooperative–specific emotions of trust, appreciation and respect showed significant differences among groups as shown in table 17.

Table 17. *GEE group comparisons (cheaters, victims, duals and cooperatives) of cooperative-specific emotions*

Cooperative-specific emotions	Wald Chi-Square	p	QIC
$Trust_t$	98.449^{***}	<0.0001	620.312
$Appreciation_t$	68.891^{***}	<0.0001	437.296
$Respect_t$	79.528^{***}	<0.0001	447.517

Note. N=270 df=3. Effect of teams are controlled for. Significance level is adjusted to p≤0,001 value for multiple testing and is marked by '***'. Model type is indicated in variabe footnote if not linear. Pairwise post-hoc analyses are presented in Appendix 4.

In case of trust, as expected, cooperatives had the highest mean of 3.97 out of 6 and they were significantly different from all three groups including cheaters (M_{diff}=1.48 p=0.001), duals (M_{diff}= 2.93 p<0.0001) and victims (M_{diff} =3.07 p<0.0001). Appreciation and respect showed a similar pattern. Having the highest mean of 3.83 out of 6 on appreciation, cooperatives were significantly different from victims (M_{diff}=2.44 p<0.0001) and duals (M_{diff} =1.76 p<0.0001) but not from cheaters. Cooperatives also had the highest mean of 4.02 out of 6 on respect being significantly different from victims (M_{diff} =2.61 p<0.0001) and tendentionally different from duals (M_{diff} = 1.47 p=0.005) but not statistically different from cheaters. It can be concluded that, in line with the hypothesis, cooperatives felt significantly higher levels of trust in contrast with all three groups. In case of appreciation and respect, cooperatives differed from both victims and duals.

H6B3: *Cheater-specific emotions: guilt, bad conscience, compassion and pity*

As shown in Table 18., in case of cheater-specific emotions, statistics revealed significant differences between groups in all hypothesized emotions (guilt, bad conscience, compassion and pity).

Table 18. *GEE group comparisons (cheaters, victims, duals and cooperatives) of cheater-specific emotions*

Cheater-specific emotions	Wald Chi-Square	p	QIC
$Guilt_t$	38.09^{***}	<0.0001	722.355
$Bad\ conscience_t$	32.657^{***}	<0.0001	764.199
$Compassion_t$	50.4^{***}	<0.0001	678.398
$Pity_t$	57.875^{***}	<0.0001	761.884

Note. N=270 df=3. Effect of teams are controlled for. Significance level is adjusted to p≤0,001 value for multiple testing and is marked by '***'. Model type is indicated in variabe footnote if not linear. Pairwise post-hoc analyses are presented in Appendix 4.

In case of guilt, cheaters had the highest group mean of 1.66 and were significantly different from all other conflict roles, including cooperatives (M_{diff} =1.39 p<0.0001), duals (M_{diff} =1.23 p=0.001) and victims (M_{diff}=1.37 p<0.0001). In case of bad conscience, a similar pattern was detected. Cheaters had the highest group mean and differed significantly from cooperatives (M_{diff} =1.39 p<0.0001) and victims (M_{diff} =1.29 p<0.0001) and they differed tendentionally from duals (M_{diff} =1.13 p=0.005). While these emotions were reported in lower levels in an absolute sense, significant differences were detected between cheaters and other conflict roles.

Regarding compassion, as expected, cheaters had the highest group mean of 2.79 out of 6 and were significantly different from victims (M_{diff}= 2.36 p<0.0001) and tendentionally different from duals (M_{diff} = 1.17 p=0.039) and cooperatives (M_{diff} =1.00 p=0.026).

As for pity, it was also found to be a cheater-specific emotion with cheaters having the highest mean of 2.33. Cheaters were significantly different from all three groups including cooperatives (M_{diff} =1.84 p<0.0001), duals (M_{diff} =2.02 p<0.0001) and victims (M_{diff} =1.64 p<0.0001).

It can be concluded that these results are in line with the postulates. In all cases, cheaters reported the highest means and in case of guilt and pity, cheaters were found to be

significantly different from all other groups. In case of bad conscience and compassion cheaters were significantly different from victims and at least tendentionally different from cooperatives and duals.

H6B4: *Victim-specific emotions: anger, vengefulness, resentment, contempt and intimidation*

As shown in Table 19. below, all victim-specific other-morality induced emotions, such as anger, vengefulness, resentment and contempt were found to show significant differences among conflict roles whereas other-competence-based intimidation showed no significant difference.

Table 19. *GEE group comparisons (cheaters, victims, duals and cooperatives) of victim-specific emotions*

Victim-specific emotions	Wald Chi-Square	p	QIC
$Anger_t$	57.389^{***}	<0.0001	758.216
$Vengefulness_t$	42.983^{***}	<0.0001	791.976
$Resentment_t$	43.487^{***}	<0.0001	776.619
$Contempt_{t\_l}$	57.892^{***}	<0.0001	727.564
$Intimidation_t$	4.97^{NS}	0.174	782.443

Note. N=270 df=3. Effect of teams are controlled for. Significance level is adjusted to p≤0,001 value for multiple testing and is marked by '***'. Tendential relation 0,05 ≤ p ≤ 0,002 is marked by '^{T}'. Nonsignificance is marked by '^{NS}'. Model type is indicated in variabe footnote if not linear. Pairwise post-hoc analyses are presented in Appendix 4.

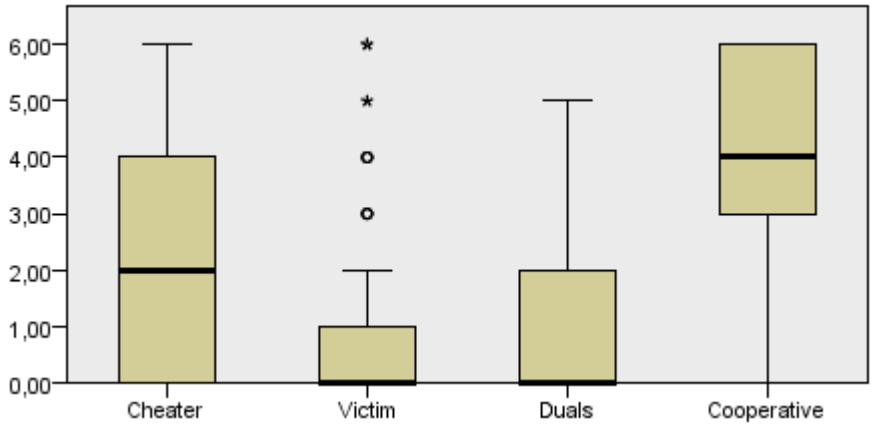
Further analysis revealed that in case of anger, vengefulness, resentment and contempt victims had the highest group means (2.88; 2.56; 2.51 and 1.91, respectively) and in case of anger, resentment and contempt victims were significantly different from all groups. In detail, anger was significantly different from cheaters (M_{diff} = 2.22 p<0.0001), duals (M_{diff} = 1.98 p<0.0001) and cooperatives (M_{diff} = 2.49 p<0.0001). Resentment was also found to be significantly higher for victims compared to cheaters (M_{diff} = 1.84 p<0.0001), duals (M_{diff} = 1.56 p<0.0001) and cooperatives (M_{diff} = 2.19 p<0.0001). Contempt was also found to be characteristic of victims compared to cheaters (M_{diff} = 1.52 p<0.0001), duals (M_{diff} =1.77 p<0.0001) and cooperatives (M_{diff} = 1.75 p<0.0001). In case of vengefulness victims were significantly different from cheaters (M_{diff}= 1.95 p<0.0001)

and cooperatives (M_{diff} = 2.10 p<0.0001) but only tendentionally different from duals (M_{diff} = 1.34 p=0.009).

Intimidation, a competence-based interpersonal emotion did not show significant differences according to conflict roles. Further investigation revealed a floor effect, as participants reported close to zero level of intimidation in each group (group means ranged between 0.27 and 0.59). Previous studies have found that intimidation is more likely to occur with status and power differences (Cuddy, Fiske, Glick, 2008) which was not the case in this study. In a classroom setting intimidation translates as a competence-threat that is more likely to occur when explicit comparisons are made based on achievements (Micari and Drane, 2011). I argue that this simulation task provided a combined challenge of competence *and* morality where the competence-threat aspect might have not become emphasized. In the simulation there was no element built in to facilitate explicit comparison of the final results. It is important to note however that in the conceptual factor analysis intimidation loaded on the victim and the cheater profile with inverse valence indicating its conceptual relevance.

Interpersonal trust was also hypothesized to be the lowest in case of victims. Below a boxplot of individual trust means are presented according to conflict roles (Figure 10.) It shows that the median for victims and duals of trust is zero, although duals have a wider range of distribution than victims. Cheaters' reported median is two with a wide scatter range whereas cooperatives have a median of four.

Figure 10. *Trust levels reported by cheaters, victims, duals and cooperatives in conflict*



Note. Boxplot showing the distribution of individual answers by conflict role. Medians are indicated by the bold line.

It was reported earlier (see table 17.) that groups were significantly different from each other ($\chi^2(3)=98.449$ $p<0.0001$) with cooperatives reporting significantly higher levels of trust in comparison with all the groups. Pairwise comparisons were run to check the hypothesis regarding victims' trust that revealed that victims indicated significantly lower levels of trust compared to cheaters ($M_{diff}= -1.59$ $p<0.0001$) and cooperatives ($M_{diff}= -3.07$ $p<0.0001$) but were not significantly different from duals. It can be concluded that victims together with duals showed the lowest levels of trust in an absolute terms as well as in statistical comparison with cooperatives and cheaters.

H6B5: Dual-specific pattern of emotions

As expected, duals did not show significant difference in comparison with all three other conflict roles. In other words, they did not have a specific, signature emotion that was characteristic of only them. Before testing the hypothesis on trust and schadenfreude the complete emotional pattern for duals was investigated. In case of each emotion that showed significant difference within the overall four conflict role categories, duals were further analyzed pairwise to determine whether they were more similar to cheaters or victims. In case of victim-specific emotions of anger, vengefulness, resentment and contempt duals were similar to cheaters. They were proved to be significantly higher on anger ($M_{diff} = -1.98$ $p<0.0001$), resentment ($M_{diff} = -1.56$ $p<0.0001$) and contempt ($M_{diff} = -1.77$ $p<0.0001$), and were tendentionally higher on vengefulness ($M_{diff}= -1.34$ $p=0.009$) compared to victims whereas no significant difference was found between duals and cheaters.

In case of cheater-specific emotions of guilt, bad conscience, compassion and pity duals were similar to victims. Duals reported significantly lower levels of guilt ($M_{diff}= -1.23$ $p=0.001$) and pity ($M_{diff}= -2.02$ $p<0.0001$) compared to cheaters and tendentionally lower levels of bad conscience ($M_{diff}= -1.13$ $p=0.005$) and compassion ($M_{diff}= -1.17$ $p=0.039$) than cheaters. In case of compassion, duals had tendentionally lower level than cheaters, as mentioned before and they had tendentionally higher levels of compassion compared to victims ($M_{diff} = 1.19$ $p=0.007$).

In case of cooperative-specific emotions of appreciation and respect, duals were more similar to victims. Duals reported significantly lower levels of appreciation compared to

cooperatives (M_{diff}= -1.76 p<0.0001) and tendentionally lower levels compared to cheaters (M_{diff}= -1.09 p=0.018) and showed no significant difference from victims. Duals showed tendentionally lower levels of respect in comparison with cooperatives (M_{diff}= -1.47 p=0.005). No significant difference was found regarding respect between duals and victims or cheaters.

As for the hypothesized two emotions of distrust and schadenfreude the following results were found. In case of trust, duals showed identical response pattern to victims (see boxplot in Figure 10.) Duals, with a group mean of 1.04 out of 6, were significantly different from cooperatives (M_{diff} = -2.93 p<0.0001) and cheaters (M_{diff} = -1.45 p<0.0001). In other words, the hypothesis on distrust is confirmed. In case of schadenfreude, duals showed tendentionally higher levels compared to cooperatives (M_{diff} = 0.54 p=0.047) but no significant differences were found between duals and cheaters or victims. As hypothesized, cheaters showed the highest levels of schadenfreude and duals had the highest group mean. However due to the floor effect only the contrast between duals and cooperatives reached significance.

3.4.3.7 Conflict- related attributions according to conflict roles (H7)

As shown in Table 20. significant differences between conflict roles regarding attributional style were detected in the case of self-attribution ($\chi^2(3)$=66.416 p<0.0001) and other-attribution ($\chi^2(3)$=30.146 p<0.0001) and a tendential difference was found in case of attribution to the nature of the task ($\chi^2(3)$=10.841 p=0.013).

Table 20. *GEE group comparison (cheaters, victims, duals and cooperatives) of conflict attributions*

Attribution	Wald Chi-Square	p	QIC
to $Self_t$	66.416^{***}	<0.0001	263.304
to $Other_t$	30.146^{***}	<0.0001	218.982
to $Task_t$	10.841^{T}	0.013	354.958

Note. N=269 df=3. Effect of teams are controlled for. Significance level is adjusted to p≤0,001 value for multiple testing and is marked by '***'. Tendential relation 0,05 ≤ p ≤ 0,002 is marked by 'T'. Model type is indicated in variabe footnote if not linear. Pairwise post-hoc analyses are presented in Appendix 4.

Pairwise post-hoc analysis revealed that, as hypothesized, cheaters indicated significantly higher levels of outcome attribution to themselves with an average of 4.44 on a zero to six scale making them significantly different from all other conflict roles (victims: M_{diff} = 2.09 $p<0.0001$; duals: M_{diff} = 1.74 $p<0.0001$; cooperatives: M_{diff} = 1.17 $p<0.0001$).

Victims, on the other hand, had the highest mean of 4.23 on other-attribution: blaming the partner team for the outcome with a significant difference from cooperatives (M_{diff} = 1.25 $p<0.0001$) and a tendential difference from duals (M_{diff} = 1.11 $p= 0.022$) and cheaters (M_{diff}= 0.799 $p=0.037$).

The tendential difference between the groups regarding attributing the outcome to the nature of the task resulted by duals who had the highest mean of 4.32. Duals were tendentionally different from all three other roles (cooperatives: M_{diff} = 1.25 $p= 0.035$; cheaters: M_{diff}= 1.29 $p=0.015$; victims: M_{diff}= 1.30 $p=0.013$).

Cooperatives seemed to attribute their success equally to themselves (M=3.27), to the other team (M=2.97) and to the nature of the task (M=3.07) on a scale of zero to six indicating medium level on each scale.

In summary, as hypothesized, cheaters attributed the outcome to themselves, victims blamed cheaters for their results, duals found the nature of the task as salient reason for their final scores whereas cooperatives attributed their success to themselves, to the partner team and to the nature of the task in an equally moderate proportion.

Attributions as correlations of moral emotions of anger, guilt and pity

As an extension a correlational analysis was run to examine attributions and related moral emotions such as anger, guilt and pity (Table 21.) based on Weiner and collegues' (1982) and Weiner's (2006) work.

Table 21. *Correlation between attribution style and moral emotions of anger, guilt and pity*

	Attribution to Self	Attribution to Other	Attribution to Task
Anger	-.292***	**.215***	-.094NS
Guilt	**.205***	.030NS	-.132T
Pity	**.183***	.120T	-.101T

Note. N=395 Pearson r values are presented. Significance level is adjusted to p≤0,001 value for multiple testing and is marked by '***'. Tendential relation 0,05 ≤ p ≤ 0,002 is marked by 'T'

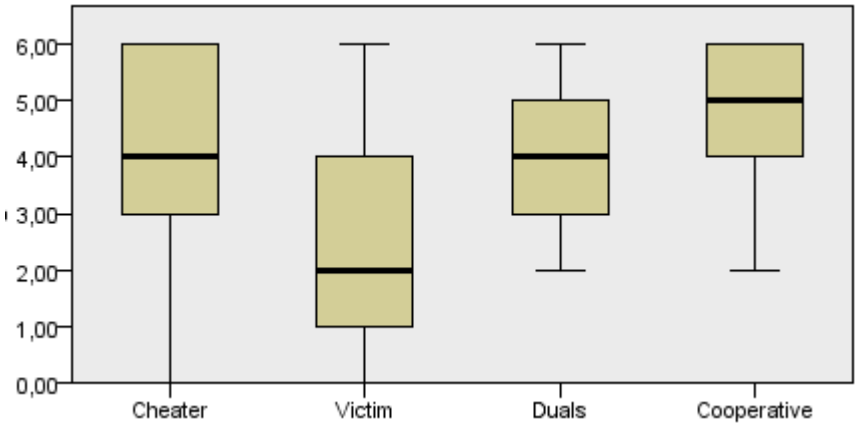
As expected, attribution to self showed a weak but significant correlation with both guilt and anger. Since cheaters scored significantly higher on self-attribution the results can be interpreted in a way that attributing a sinful success to oneself is positively correlated with guilt and pity and was negatively correlated with anger. Attributing the outcome to the other team, as expected, showed a significant and positive weak correlation with anger. As victims scored highest on the other-attribution item, it can be understood as blaming cheaters for their immorality that positively correlates with anger. Attribution to task yielded no significant results. These findings are in line with the empirical model proposed by Weiner and colleagues (1982) that identified different attributional patterns underlying anger (attributing negative outcome to external and controllable factors), pity (attributing negative outcome to external and uncontrollable factors) and guilt (attributing negative outcome to internal, controllable factors).

3.4.3.8 Reconciliatory attitudes and preferred responses to conflict (H8)

H8A: Willingness to reconcile according to conflict roles

Prosocial attitudes toward the partner team (willingness to work together on another task) was the measure of reconciliatory tendencies. As expected, the GEE test revealed a significant difference between conflict roles (cheaters, victim, duals and cooperatives) $\chi^2(3)=38.224$ $p<0.0001$. Pairwise post-hoc analysis found that victims with a mean of 2.46 on a zero to six point scale were significantly different from both cheaters ($M_{diff}= -1.41$ $p<0.0001$) and cooperatives ($M_{diff}= -2.13$ $p<0.0001$) and showed a tendential difference from duals ($M_{diff}= -1.39$ $p=0.003$). In other words, victims were the least likely to show prosocial attitudes towards their partner team. Boxplot of the results is presented below (Figure 11.)

Figure 11. *Prosocial attitudes towards the other team after conflict according to conflict roles (cheater, victim, dual, cooperative)*



Note. Boxplot showing the distribution of individual answers by conflict role. Medians are indicated by the bold line.

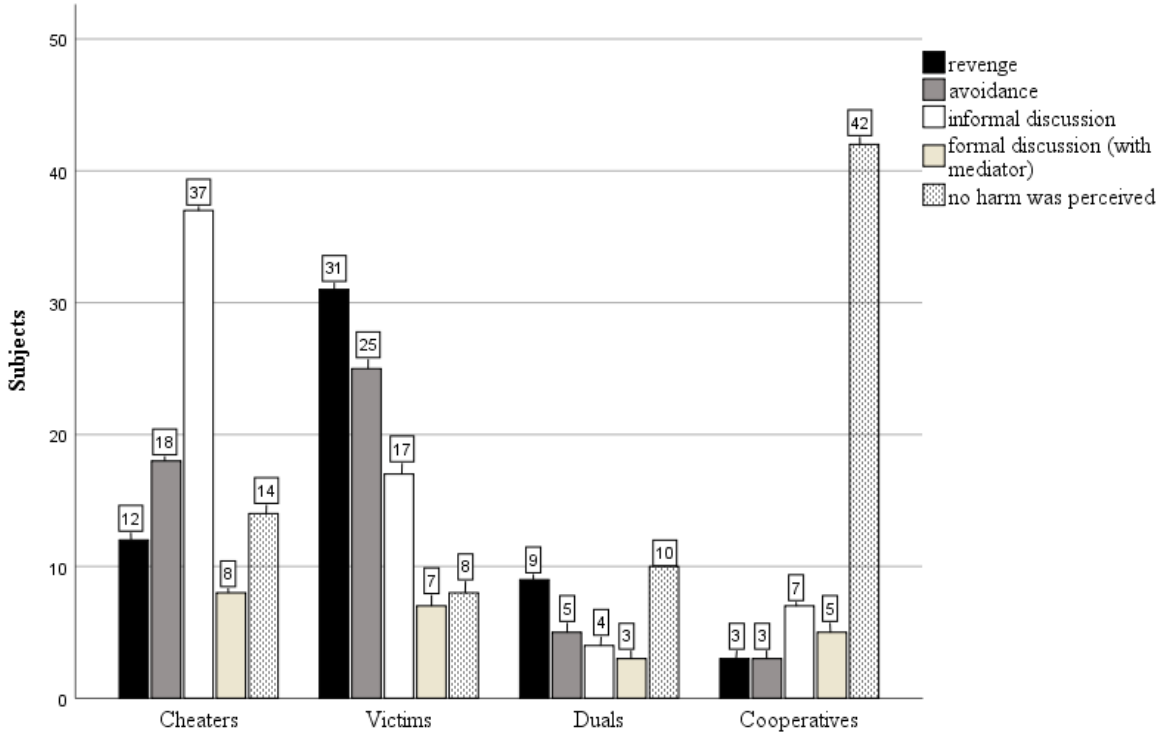
Cooperatives and cheaters showed significant differences compared to the victim group only. Duals showed a tendential difference compared to victims as detailed above but they were not found to be different from either cheaters or cooperatives. This means that duals have a relatively high readiness to reconcile that makes them more similar to cheaters than to victims. These results are different from SimonTov-Nachlieli and Shnabel' (2014) findings who revealed that duals resembled victims in terms of post-conflict behaviour and duals chose to retaliate when provided the chance in an experimentally induced interpersonal conflict setting. In the present study, duals behavioural intention resembles cheaters' prosocial attitude as opposed to victims' antisocial response.

When interpreting these results it is important to note that in this study I did not measure actual behavioural outcome as the SimonTov-Nachlieli and Shnabel (2014) did (by allocation of goods). Measuring behavioural intention however can be different from the actual behaviour, an aspect that this study did not include. Further investigation of interpersonal emotions however were in line with duals' answers who reported significantly lower levels of anger, vengefulness resentment and contempt than victims. As approach –avoidance behavioural intentions as response to a conflict can vary, further investigation was carried out to examine this pattern according to conflict role.

H8B1: Preferred responses to actual conflict

Behavioral response tendencies were further mapped by categorical variables. A Chi-Square test revealed significant differences in preferred way to respond to the conflict according to conflict roles ($\chi^2(12)=102.36$ $p<0.0001$).

Figure 12. *Preferred emotion- or problem-focused responses to conflict according to conflict roles*



Note. Number of subjects are indicated.

As shown on Figure 12, most cheaters' (41,6%, 37s.) indicated informal discussion as their preferred response to conflict, in other words to talk it over and clarify differences. Altogether up to 50 percent of cheaters preferred to choose a problem-focused response to the conflict that included having a discussion with or without a help of a mediator. Approximately 34 percent of them preferred an emotion-focused response (avoidance or revenge, 18, 12 respectively). This result is in accordance with cheaters' higher willingness to reconcile.

For most victims the active destructive revenge was the preferred answer (35 %, 31 s.), followed by passive avoidance by 28 percent (25 subjects). Altogether 63 percent of victims chose an emotion-focused strategy and only 27 percent (24 subjects) of them indicated the problem-focused options. This result is in harmony with victims' low readiness to reconcile.

Duals showed a great variety in their preferred response to conflict. 32 percent (10 subjects) were similar to cooperatives by indicating no perceived harm and no further need to respond. In contrast to this, almost the same amount of duals (29%, 9 s.) indicated revenge as their preference similar to victims. Altogether 45 percent of duals preferred an emotion-focused response (revenge and avoidance, 9 and 5 respectively) and only 22.5 percent opted for a problem-focused strategy. Duals showed a wide variety of conflict perceptions, the same is the case with regards to conflict responses.

As expected, the majority of cooperatives (70%, 42 s.) indicated no perceived harm.

H8B2: Preferred responses to conflict in real life

A follow up question on preferred way to resolve a similar conflict in a real life situation however did not result in significant difference between groups ($\chi^2(9)=15.931$ $p=0.068$). In each group the majority of participants indicated informal discussion (talking the conflict over) as the most preferred alternative (66% of cheaters, 48% of victims, 42% of duals and 73% of cooperatives). This points to an important discrepancy between the knowledge that active constructive, problem-focused responses to conflict are usually considered adaptive and the experience of the actual conflict in case of victims. I postulate that this difference between the indicated actual responses and an imagined real life response, especially in the case of victims, is explained by the discrepancy between lived experiences (eg. what subjects actually feel in relation to the actual conflict) and normative expectations (subjects' perceptions of what an ideal response should be). In addition, it is also possible that when subjects were asked more abstractly, to think about a hypothetical real life situation, the effect of emotions disappeared that resulted in victims' preference for problem-focused behaviours.

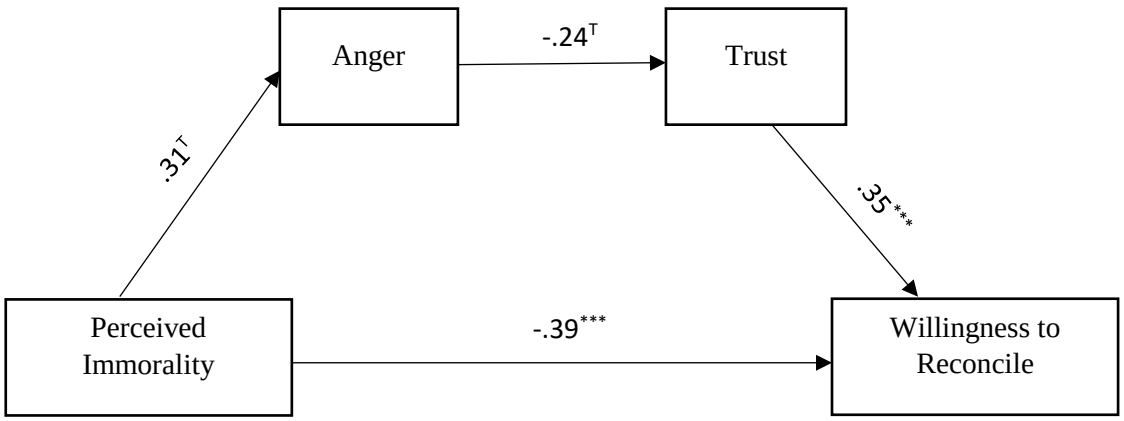
3.4.3.9 Pathway analyses (H9)

H9A: Victim-specific pathway model: Other-perception – Role-specific emotions - Reconciliation

Pathway analysis with bootstrapping in AMOS on the victim subsample was performed with the data obtained before the intervention (as part of the Individual Opening Questionnaire). In case of victims, the relevant other-perception aspect, perceived (im)morality of their cheater team partners were entered as predictor. Anger and trust as signature role-specific emotions were entered as mediators. The dependent variable was willingness to reconcile (Figure 13.)

A good model fit could be observed ($\chi^2(2)=2.299$ $p=0.317$) where no significant difference between the estimated and the observed values were detected. The fit indicators were acceptable (NFI=0.936; RFI=0.809; IFI=0.991; TLI=0.970; CFI=0.990; RMSEA=0.046).

Figure 13. *Serial mediation model of victims' willingness to reconcile. Perception (perceived immorality) – Signature emotions (anger and trust) – Reconciliatory attitude path.*



Standardized regression weights (β values) are shown. Significance level is adjusted to p≤0,001 value for multiple testing and is marked by '***'. Tendential relation 0,05 ≤ p ≤ 0,002 is marked by 'T'

Perceived immorality of the other team directly and significantly predicted unwillingness to reconcile ($\beta_{St.M\_W}$= -0.39 $p<0.0001$) and this relationship was mediated by the common effect of anger and trust. Anger was predicted by perceived immorality ($\beta_{St.M\_A}$= 0.31 $p=0.007$) and trust had a tendential mediating effect of anger ($\beta_{St.A\_T}$= -0.24 $p=0.041$) on

willingness to reconcile ($\beta_{St.T\_W}$= 0.35 p<0.0001). The model explained 31 percent of the variance of victims´ reconciliatory tendencies. Only weak standardized indirect effects of morality on trust ($\beta_{St\,M\_T}$= -0.073) and of anger on willingness to reconcile (β_{A_W}= -0.084) were detected. If the mediator variables (anger and trust) were eliminated from the model the explained variance of reconciliatory attitude drop from 31 percent to 16 percent. The model shows that moral emotions such as anger and trust mediate the relationship between perception of immorality and willingness to reconcile with inverse valence.

H9B: Cheater-specific pathway model: other-perception – role-specific emotions - reconciliation

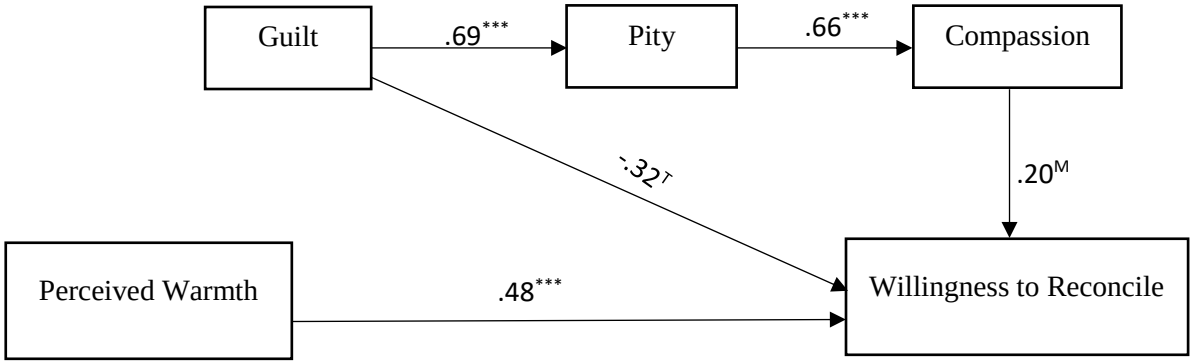
The mediation model was built in AMOS with bootstrapping on the cheater database in a cross-sectional design. The relevant other-perception aspect (perceived warmth) was entered as a predictor variable into the mediation model. Role-specific emotions such as guilt, pity and compassion were added as moderator variables. Willingness to reconcile was the dependent measure (Figure 14.).

A good model fit could be observed ($\chi^2(5)$=1.909, p=0.862) where no significant difference between the estimated and the observed values were found. All the regression weights of the model were significant, except for the one between compassion and willingness to reconcile that showed only a marginally tendentional relationship ($\beta_{St.C\_W}$=0.20 p=0.057). The fit indicators were at a very high level, all of them were greater than 0.9 (RFI=0.984; NFI=0.968; IFI=1.027; TLI=1.056; CFI=1.000) and RMSEA was far below 0.1 (p<0.0001) showing the good fit of the model.

The model explains 32 percent of the variance of cheaters´ reconciliatory attitudes.

Figure 14. *Mediating factors of willingness to reconcile for cheaters.*

Perception (perceived warmth) and Signature emotions (guilt, pity, compassion) – Reconciliatory attitude path.



Standardized regression weights (β values) are shown. Significance level is adjusted to p≤0,001 value for multiple testing and is marked by '***'. Tendential relation 0,05 ≤ p ≤ 0,002 is marked by 'T'.'M' marks marginal significance of p=0.057.

Perceived warmth had the strongest direct effect on willingness to reconcile ($\beta_{St.PW\_W}$=0.48, p<0.0001) in the model. Importantly, there was no significant relationship between perceived warmth and guilt. This means that guilt can be felt independent of whether or not a cheater perceives their victim partner warm. This indirectly supports the matrix of conflict-related emotions (presented in Table 6.) where guilt is conceptualized as a self-morality induced emotion.

Guilt had two different effects on the dependent variable. The direct one had the standardized regression weight of $\beta_{St.G\_W}$= -0.32 with a tendential, almost significant p value of p=0.002[13]. This is an important finding because it shows that guilt is in a weak but *negative* relationship with willingness to reconcile. In other words, higher levels of guilt is associated with lower levels of prosocial intentions. The indirect effect of guilt however is positive meaning that through pity and compassion the reconciliatory attitudes increase.

The indirect effect of guilt on willingness to reconcile had two direct effects: guilt on pity ($\beta_{St.G\_P}$= =0.69, p<0.0001) and pity on compassion ($\beta_{St.P\_C}$= 0.66, p<0.0001).

[13] p<= 0.001 is used in this study as significance level after adjusting for multiple testing.

Compassion directly affected willingness to reconcile that only marginally reached tendential significance ($\beta_{St.}$= 0.20, p=0.057). Role-specific emotions were strongly and positively related with each other. It is important to note that pity was unrelated to the dependent variable. This provides indirect support that guilt, pity and compassion are conceptually different emotions and it maybe through the feelings of pity that guilt can be transformed into a motivator of prosocial, reconciliatory behaviour.

In conclusion, the model shows that perceived warmth has a strong and independent effect on reconciliation. It also shows the guilt, as a direct effect, reduces willingness to reconcile while through pity and compassion it can increase prosocial attitudes towards their victim partners.

3.4.3.10 Conflict-related interpersonal needs as assumptions of the NBMR (H10)

H10A: Conceptual analysis of conflict-related needs

In order to investigate the relevance of the Needs-based Model of Reconciliation (Shnabel and Nadler, 2008, Nadler and Schnabel, 2015), first the assumptions of the model were checked regarding role-specific interpersonal needs. As a first step, a conceptual analysis was conducted on the nine conflict-related interpersonal need items in form of a factor analysis. Secondly, cheaters, victims and duals were compared using generalized estimating equations (GEE) in SPSS. Cooperatives were excluded from this analysis as they were not hypothesized to experience conflict. For descriptive statistics of the needs items please see Appendix 3.

Factor analysis on the nine interpersonal need items was conducted using principal component analysis on the complete sample that suggested a two factor solution explaining 60 percent of the total variance. The model was significant with an adequate Kaiser-Meyer-Olkin value of .819 and with a significant Bartlett's test of sphericity $\chi^2(36)=1324.6$ $p<0.001$. Communalities ranged from medium to high with the *need for control* and the *need for understanding* items scoring lowest having 40 percent and 44 percent of variance in common with other variables, respectively. As the factor components showed a relatively high .324 correlation Oblimin rotation was applied (Table 22.)

Table 22. *Pattern matrix of conflict-related interpersonal needs*

Need item (indicating hypothesized group: cheater or victim)	Factor loadings		Commu-nalities
	Factor 1 *Moral-Social dimension*	Factor 2 *Agency dimension*	
Need to be seen harmless (C)	.853		.686
Need for acceptance (warmth) (C)	.829		.730
Need to be seen well-meaning (C)	.797		.592
Need for morality (C)	.773		.659
Need for understanding (C)	.588		.436
Need for worthiness (V)		.771	.639
Need for competence (V)		.747	.694
Need for strength (V)		.738	.694
Need for control (V)		.669	.402
Eigenvalue	3.952	1.528	
% of total variance	43.916	16.975	
Total variance	43.916	60.891	

Note. Principal component analysis with Oblimin rotation. Factor loadings are sorted by size. Coefficients with a value below 0.3 are not shown. N=371.

The factor analysis confirmed that all the interpersonal need items hypothesized to be cheaters' characteristics (need to be seen harmless, need for acceptance, need to be seen well-meaning, need for morality and need for understanding presented in decreasing order of factor loads) fall on one factor explaining 44 percent of the total variance. Similarly, all interpersonal need items hypothesized to belong to victims (need for worthiness, need for competence, need for strength and need for control in decreasing order of factor loads) fall on the same factor explaining 17 percent of the variance alone.

When choosing the factor names I have taken into consideration the factor items and loadings, the terminology used by Nadler and Shnabel that identifies the salient higher order categories important in conflict. The first factor was named as the Moral-Social identity dimension (based on Nadler and Shnabel, 2015) that were hypothesized to reflect offenders' psychological impairment and interpersonal needs.

The second factor was labelled as Agency in accordance with Nadler and Shnabel's (2015) terminology. It is conceptually similar to Dominance, the label used for the second factor in self- and other perception. While the Dominance label puts more emphasis on the observable manifestations of agentic content, the Agency label stresses the intangible need/motivation aspect that lies behind the manifested behaviours.

Conceptually these interpersonal needs also reflect the universal duality of the above discussed conflict perceptions. An important conceptual difference can be noted however comparing perceptual and needs-based factor results. In case of other- and self-perception factors, both show low and negative factor component correlations (-0.268 between the two other-perception factors and -0.169 between the two self-perception factors) in this dataset. It can be stated that the two factors are relatively unrelated in both cases. In contrast, needs-based factors show a notable level of positive correlation of .324.

H10B: Conflict-related interpersonal needs according to conflict roles

Differences of single interpersonal need items according to conflict roles (cheaters, victims and duals) were investigated using generalized estimating equations modelling. Cooperatives were excluded from this analysis as they did not experience an actual conflict. It was therefore not expected of them to have experienced conflict-related psychological needs. GEE analysis made it possible to control for team effects. Significance level was adjusted to multiple testing. Results of group comparisons of need items are presented in Table 23.

Table 23**.** *GEE group comparisons (cheaters, victims, duals) of conflict-related interpersonal needs*

Need Item	Wald Chi-Square	p	QIC
Need for Control$_t$	10.473^{T}	0.005	259.869
Need for Worthiness$_t$	3.648^{NS}	0.161	310.132
Need for Strength$_t$	10.776^{T}	0.005	410.808
Need for Competence$_t$	5.400^{NS}	0.067	344.810
Need for Acceptance (Warmth)$_t$	12.901^{T}	0.002	262.922
Need for Morality$_t$	4.691^{NS}	0.96	199.656
Need for Understanding$_{t***}$	18.159^{***}	<0.0001	331.003
Need to be seen Harmless$_{t***}$	20.063^{***}	<0.0001	250.046
Need to be seen Well-meaning$_{t***}$	27.398^{***}	<0.0001	286.666
Victims' Needs Factor	14.013^{***}	0.001	180.079
Cheaters' Needs Factor	33.233^{***}	<0.0001	183.420

Note. N=195 df=2. Effect of teams are controlled for. Significance level is adjusted to p≤0,001 value for multiple testing and is marked by'***'. Tendential relation 0,05 ≤ p ≤ 0,002 is marked by '^{T}'. Nonsignificance is marked by '^{NS}'. Model type is indicated in variabe footnote if not linear. Pairwise post-hoc analyses are presented in Appendix 4.

Agentic needs

Out of the four agentic needs two (need for control: $\chi_w^2(2)=10.473$ p=0.005 and need for strength: $\chi_w^2(2)=10.776$ p=0.005) showed tendentional differences between the groups and two (need for competence: $\chi_w^2(2)=5.400$ p=0.067 and need for worthiness: $\chi_w^2(2)=3.648$ p=0.161) did not show significant differences between the groups.

In case of need for control, victims had the highest mean of 3.72 out of a maximum 6 points that was tendentionally higher than cheaters' mean of 2.78 (M_{diff}= 0.93 p=0.008). Interestingly, in case of need for strength the tendetial difference was not found between victims and cheaters but between duals and cheaters. Duals showed tendentionally higher levels of need for strength than cheaters (M_{diff}= 1.28 p=0.013).
In case of need for competence and need for worthiness no significant difference was found according to conflict roles because groups indicated an equal, medium portion of need for competence (group means ranging from 2.62 to 3.54 with a maximum of six points) similarly to need for worthiness (with group means ranging from 2.78 to 3.71).

In sum, it can be concluded that single item agentic needs did not differentiate significantly between conflict role groups, they all reported medium level group means. Two tendential differences were found. Firstly, victims reported tendentionally higher levels of need for control compared to cheaters and secondly, duals scored tendentionally higher on the need for strength item compared to cheaters. The detected tendential differences took place in the expected directions.

Moral-social needs

Regarding moral-social needs, in case of three items out of five, significant differences were found between the groups (need for understanding: $\chi_w^2(2)=18.159$ p<0.0001, need to be seen harmless: $\chi_w^2(2)=20.063$ p<0.0001 and need to be seen well-meaning $\chi_w^2(2)=27.398$ p<0.0001). In one case the difference between the groups was tendentional on the margin of significance (need for acceptance/warmth: $\chi_w^2(2)=12.901$ p=0.002) and in one case there was no significant difference (need for morality: $\chi_w^2(2)=4.691$ p=0.96).

Pairwise comparisons of the significant results revealed that in all four cases cheaters reported significantly higher levels of moral-social needs compared to victims.

Cheaters, with the highest mean of 3.47, showed a significantly higher need for understanding compared to victims (M_{diff}=1.39 p<0.0001) and a tendential difference compared to duals (M_{diff}=1.04 p=0.031).

With a mean level of 4.45, cheaters also differed significantly from victims regarding their need to be seen harmless (M_{diff} =1.48 (p<0.0001) but not from duals.

Regarding the need to be seen well-meaning, both cheaters and duals had a high mean level (M=4.99 and M=4.63, respectively, on a scale of zero to six) and they were significantly different from victims (cheaters from victims: M_{diff}=2.05 p<0.0001; duals from victims: M_{diff} =1.70 at p<0.0001).

Need for acceptance (warmth) showed tendential, almost significant difference between conflict role groups after correcting for multiple testing. Pairwise comparison revealed that cheaters had the highest mean of 4.14 on a scale of 6 that was significantly higher compared to victims (M_{diff}=1.19 p=0.003).

Morality has been one of the key domains that differentiated the groups in terms of other- and self-perception. In case of need for morality however no significant difference was found between the groups with all three reporting above medium mean levels (cheaters: M=4.35; duals: M=3.85; victims: M=3.67 of a maximum 6). The results indicate that higher levels of morality needs could be detected among all of the groups without significant difference between them. A difference between cheaters' and duals' high need for morality and victims' low morality need however was expected as derived by the postulates of the Needs-based Model of Reconciliation.

High need for public moral image in case of victims calls for explanation. In my understanding this can be explained by the very nature of the simulation task where cooperation went hand in hand with morality. In this case, when victims show a heightened need for their morality may reflect their heightened need for *acknowledgement* or *reassurance* of their morality to affirm their higher moral ground. If this acknowledgement was done by the wrongdoer it would be equivalent of responsibility taking.

Composite measures

Two composite measures, one comprising the agentic items, the other comprising the moral-social items, were created from the two factors. They were used as composite means of comparisons to detect differences between victims, cheaters and duals.

Regarding the agentic composite measure a significant difference was found according to conflict roles (χ_w^2 (2)=14.013 p=0.001) (Table 23.) Post-hoc pairwise comparisons revealed that the agentic factor differentiated victims and duals from cheaters (victims from cheaters: M_{diff}=0.486 p=0.008; duals from cheaters: M_{diff}=0.687 p=0.003) tendentionally. This indicates that victims and duals have tendentionally higher agentic needs that is in line with the hypothesis derived from the needs-based model.

When using a composite factor measure of moral-social needs that included all five items a significant difference was found according to conflict roles (χ_w^2(2)= 33.233 p<0.0001) as shown in Table 23. Post-hoc pairwise analyses revealed that cheaters and duals differed significantly from victims in reporting higher moral-social needs. This difference between cheaters and victims was significant (M_{diff}= 0.98 p<0.0001) whereas the difference between duals and victims was tendentional (M_{diff} = 0.51 p=0.036). This also shows that duals were similar to cheaters regarding high levels of moral-social needs after conflict.

In conclusion it can be argued that both composite factor measures of agentic and moral-social needs showed significant differences according to conflict roles (cheaters, victims and duals) in the expected directions.

Summarizing duals' conflict-related needs pattern

Duals were hypothesized to show high needs on both dimensions that was confirmed by these results. In absolute terms, duals had the highest mean on the composite agentic factor and they also had the highest means on all agentic items with the exception of need for control. The pairwise analysis revealed that duals scored tendentionally higher on the composite agentic need measure compared to cheaters (M_{diff}=0.687 p=0.003) that is in line with the model's postulate. Regarding single agentic items duals were not statistically different from cheaters or victims regarding need for competence, worthiness and control.

They were however tendentionally different from cheaters showing tendentionally higher need for strength (M_{diff}= 1.28 p=0.013).

In relation to moral-social needs, as expected, duals were more similar to cheaters showing elevated levels of needs on this dimension as well. The pairwise analysis revealed that duals scored tendentionally higher on the moral-social composite factor compared to victims (Mdiff=0.518 p= 0.036) but were not significant from cheaters. Regarding single item moral-social needs, duals were not statistically different from either victim or cheater group except for the need to be seen well-meaning item. In this case, duals resembled cheaters, as they scored significantly higher compared to victims (Mdiff= 1.70 p<0.0001). Based on the results it can be concluded that duals showed the expected pattern regarding conflict-related needs; they scored high on both agentic and moral-social needs.

3.4.3.11 Repeated measures: a tentative analysis (H11)

As the assumptions regarding role-specific needs of the Needs-based Model of Reconciliaton was supported by the empirical data showing that both agentic (χ_w^2 (2)=14.013 p=0.001) and moral-social (χ_w^2(2)= 33.233 p<0.0001) composite measures revealed significant differences among conflict role groups in the expected directions I proceeded to investigate the model's postulates regarding the effect of role-specific messages.

A tentative analysis was carried out to investigate the effect of role-specific messages on participants' reconciliatory attitudes. It is important to note that the analysis is tentative for, as explained in the method section, no control condition could be inserted into the design. Secondly, as subjects self-selected themselves to the conflict role, randomization was omitted. For these reasons the interpretation of the results are severely limited.

Team feedback message measures: messages of empowerment and acceptance

As a first step a forced two-factor solution of the feedback messages was used to create a composite measure of empowerment and acceptance messages. The original factor analysis suggested three factors where message of good intention as a single item accounted for the third factor. Further analysis revealed that the majority of the

participants scored maximum on this item independent of their conflict role resulting in a ceiling effect. The decision was made not to eliminate the good intention item but to force a two-factor solution that could still contain the information provided by it which therefore fell on both factors with lower factor loadings. As the model was significant with an adequate KMO value of .752 and a significant Bartlett's test of sphericity ($\chi^2(21)=849.552$ $p<0.0001$) I went on to use this analysis. Acceptance message factor (AMF) explained 45 percent of the total variance and empowerment message factor (EMF) accounted for 17 percent of the variance.

The empowerment message factor hypothesized to fulfil victims' interpersonal needs consisted of (1) message of apology (with .886 factor loadings) and (2) message of acknowledging dishonesty (with .867 factor loadings) and (3) message of good intention (with .230 factor loadings) items. The fourth empowerment item, message of worthiness, fell on the acceptance message factor presumably due to a technical issue. As asking for apology and acknowledging dishonesty applied only for the case of cheaters, it resulted in zero or low levels for victims on those two items while the rest of the measures did not yield such dichotomous distribution between participants. In other words, apologizing and acknowledging dishonesty appeared as distinct categories and differentiated between subjects' answers according to their conflict role whereas the rest of the needs including worthiness, good intention, acceptance, morality and understanding did not. This means that both victims and offenders could indicate higher levels of worthiness, good intention, acceptance, morality and understanding to their team partner but only cheaters would indicate high levels of apology and acknowledgement of dishonesty. In my opinion that influenced the factor structure in a way that the latter items resulted in a separate factor.

Acceptance message factor was therefore created of (1) message of acceptance (warmth) item (of .837 factor loading), (2) message of restoring public moral image (of .845 factor loading), (3) message of understanding (of .793 factor loading), (4) message of worthiness (of .848 factor loading) and (5) message of good intention (of .259 factor loading). The EMF and the AMF factors were used in the following repeated measure analysis.

Effects of messages of Empowerment and Acceptance on reconciliation according to conflict roles

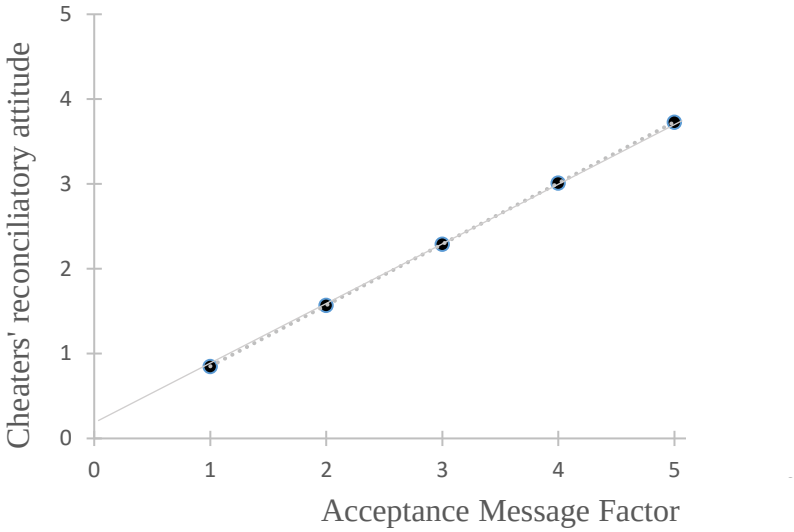
To investigate the postulates of the Needs-based Model of Reconciliation (Shnabel and Nadler, 2008) in an ecologically highly valid context a 3X2 interactional model of conflict role (cheaters, victims, duals) and type of feedback message (empowerment or acceptance) was developed (see the function below). The model was tested with generalized estimating equations (GEE) in SPSS. Effects of teams were controlled for by entering subjects as exchangeable repeated measures of teams in the model. As response variable the change in willingness to reconcile (ΔWtR) variable was entered. Change in reconciliatory attitudes was calculated by deducting post-intervention willingness to reconcile measure (WtR_{T2}) from pre-intervention willingness to reconcile (WtR_{T1}). This means that if the value of ΔWtR is positive, willingness to reconcile increased, if it is in the negative range, the willingness to reconcile decreased. If the value is zero, no change could be detected in reconciliatory attitudes between the two time points. Predictor variables were conflict role (CR), acceptance message factor (AMF) and empowerment message factor (EMF).

$$\Delta WtR_{T2\text{-}T1} = CR_{cheater,victim,dual} * AMF + CR_{cheater,victim,dual} * EMF$$

The model yielded one interaction as significant and one as tendential after correcting for multiple testing. The model had a QIC value of 481,529. Interaction between conflict role and acceptance message factor was significant with $\chi^2(3)=16.964$ $p=0.001$. Interaction between conflict role and empowerment message factor was tendential with $\chi^2(3)= 8.022$ $p=0.046$.

Further parameter analysis revealed that, as expected, the interaction between cheater role and acceptance message (AMF) had a significant effect on willingness to reconcile ($\chi_{wald}^2(1)= 12.086$ $p=0.001$) with a function of $\Delta WtR_{Cheater} = 0{,}13 + 0{,}722 * AMF$ as illustrated by Figure 15 below.

Figure 15. *Illustration of the function of cheater's reconciliatory attitudes and acceptance message factor*

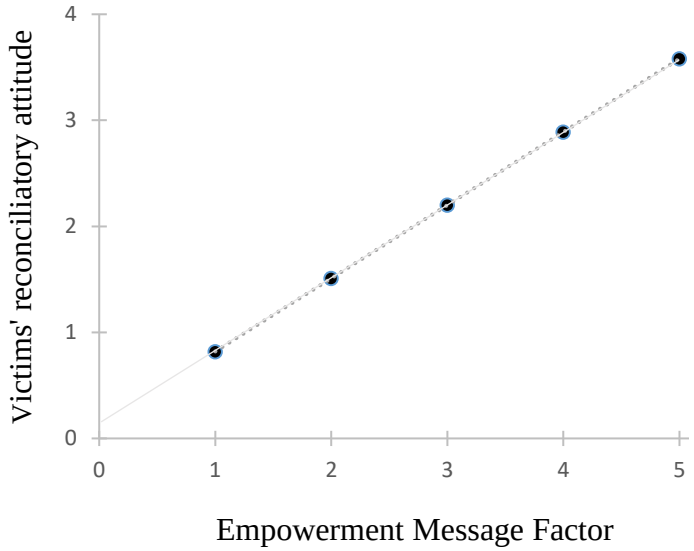


Note. Illustration of the $\Delta WtR_{Cheater}$= 0,13 + 0,722*AMF function.

As the figure shows one point increase on the acceptance message factor results in 0.722 increase in cheaters' willingness to reconcile. The interaction between cheater role and empowerment message was not significant. This is understandable as victims were not likely to ask for an apology from cheaters and acknowledge dishonesty.

As for victims, the interaction between victim role and empowerment message reached a p=0.009 significance ($\chi_{wald}^2(1)$= 6.793 p=0.009) which is considered a tendential relationship in this study. In other words, the combined measure of asking for apology and acknowledging dishonesty for victims resulted in a tendentional increase in their willingness to reconcile with a function of ΔWtR_{Victim}= 0,13 + 0,692*EMF.

Figure 16. *Illustration of the function of victims' reconciliatory and empowerment message factor*



Note. Illustration of the ΔWtR_{Victim}= 0,13 + 0,692*EMF function.

The figure (Figure 16.) shows that one point increase on the empowerment message factor results in 0.692 point increase in victims' willingness to reconcile.

Interestingly, the interaction between victim role and acceptance message factor was not found to be significant. This result is consistent with the postulates of the needs-based model emphasizing one of its key conclusions that *role-specific* messages from the adversary (empowerment messages to victims and acceptance messages for perpetrators) are the most effective in fostering reconciliation. This finding is not in line with the practical empirical results of the authors (Shnabel, Nadler, Ullrich, Dovidio, Carmi, 2009) who have found that *any* type of positive message potentially increases reconciliatory attitudes, only role-specific feedbacks are more effective.

For duals, both empowerment and acceptance messages were hypothesized to be efficient in increasing reconciliatory attitudes. The findings show that dual conflict role and empowerment message interaction was not significant. This means that apologizing and acknowledging dishonesty may not have borne importance due to the symmetrical nature of the situation. It is important to note however that, as explained earlier, other important aspects of empowerment, such as recognition of worthiness and expressing good intention from the part of the offender was not part of the empowerment message factor.

The interaction between conflict role and acceptance message however reached a p=0.025 significance level with a large β value indicating a high volume of increase in reconciliatory attitudes (ΔWtR_{Dual}= 0,13 + 1,50 *AMF). This result can be accepted as tendential (p=0.025).

In this study the empowerment message measure comprised the apology and the acknowledgement of wrong-doing while the acceptance message factor consisted of self-image- and relationship-restorative items. Apologizing and responsibility taking are thought to be effective because they have the potential to restore the power imbalance created between the victims and the offenders by the wrongdoing. In case of duals in the context of the simulation exercise it is therefore understandable why an apologetic strategy may be less efficient on the road to reconcile. In the dual role, due to the symmetric nature of the cheating, no power imbalance is created. For this reason, it may be more effective for duals to focus on identity- and relationship- restoration as opposed to addressing past wrong-doing in the context of the simulation exercise.

When interpreting the results it is important to emphasize the earlier mentioned limitations of the research design.

3.4.3.12 Trait interpersonal needs (FIRO-B) (H12)

Hypothesis 12 consists of two parts both investigating results of the trait interpersonal need measurement (FIRO-B). H12A focuses on the factor structure of the questionnaire measure and is presented below. Hypothesis H12B focuses on detecting possible differences between conflict role groups and tests trait interpersonal needs as a potential background variable that might influence self-selection into conflict roles. For this reason, Hypothesis H12B has been presented earlier under the section titled ‘Manipulation check and control variables’.

H12A: Conceptual analysis of trait interpersonal needs: a question of two-dimensionality

A conceptual analysis investigated the factor structure of trait interpersonal needs to shed light on questions regarding its validity (Wiedemann, Waxenberg, Mone, 1979, Fisher, Macrosson, Walker, 1995). Six subscales of nine items each (wanted and expressed inclusion, wanted and expressed affection, wanted and expressed control) of the FIRO-B

questionnaire were subjected to principal component analysis on the complete sample. A two factor solution was suggested by the model that was significant with an adequate Kaiser-Meyer-Olkin value of .721 and with a significant Bartlett's test of sphericity $\chi^2(15)=526.6$ $p<0.0001$. The rotated component matrix with factor loadings and communalities is presented in Table 24.

Table 24. *Rotated component matrix of the Trait Interperson Needs (FIRO-B) measure*

FIRO-B subscale	Factor loadings		Communalities
	Factor 1 *Warmth*	Factor 2 *Dominance*	
Expressed Affection	.832		.696
Wanted Inclusion	.829		.688
Wanted Affection	.789		.631
Expressed Inclusion	.746		.603
Expressed Control		.819	.674
Wanted Control		-.735	.541
Eigenvalue	2.601	1.232	
% of total variance	43.352	20.532	
Total variance	43.352	63.884	

Note. Principal component analysis with Varimax rotation. Factor loadings are sorted by size. Coefficients with a value below 0.3 are not shown. N=347.

The results support the theoretical notion and empirical evidence that interpersonal needs measured by the FIRO-B questionnaire also follow a two-dimensional pattern. Expressed and wanted affection (with factor loadings of .832 and .789, respectively) as well as expressed and wanted inclusion (with factor loadings of .746 and .829, respectively) fell on the same factor forming a General Warmth construct, a term prosposed by Wiedemann and colleagues (Wiedemann, Waxenberg, Mone, 1979). The affection subscales refer to the need for intimacy and close relations (expressed: making effort to create close and personal relations with others, wanted: liking other people being close to oneself) while the inclusion subscales express the need for belonging and interaction (expressed: making an effort to be social and to join others, wanted: liking other people to invite oneself to join them). The results support the growing number of evidence that there is a higher-order general warmth construct underlying the affection and the inclusion subscales (Wiedemann, Waxenberg, Mone, 1979, Fisher, Macrosson, Walker, 1995). Expressed and wanted control fell on the second factor with different valence of factor loads (.819

and -.735, respectively). This makes sense as wanted control items express accepting influence of others while expressed control items measure just the opposite: the need to give influence and exercise interpersonal control. The expressed control subscale therefore can be related to interpersonal dominance while wanted control can be conceptualized as interpersonal submission manifested by the willingness to accept influence by others. For this reason Dominance was the chosen name for the second factor. The terms dominance, power and status are also proposed by McCrae and Costa (1989/2010). In this data the two factors appeared to be distinct, unrelated higher-order constructs with a correlation of .109.

While the universality of the two-dimensional nature of social cognition has been well-established these results suggest that it would be worth to further investigate the extension of the model on the bi-dimensionality of trait interpersonal needs in the future.

3.5 Discussion of Research 1

3.5.1 Methodological summary and external validity

The aim of this study on one hand was to investigate the relevance and implications general theories of social cognition related to the Big Two theory, such as the Dual Perspective Model (Wojciszke et al., 2011) and the extension of the Stereotype Content Model (Fiske et al., 2002) as well as the Needs-based Model of reconciliation (Shnabel and Nadler, 2015) in interpersonal conflict in externally valid context. For this reason I aimed to collect as much post-conflict data as possible from a wide variety of domains ranging from social cognition (self- and other-perceptions and attributions), social and moral emotions, interpersonal needs as well as behavioural intentions. The aim was to compare laws of general social cognition and emotions in the context of interpersonal conflict. As a result, I developed and tested an extension of Wojciszke's (1994) four-fold classification of actions of perception on emotions (Figure 4.)

From a methodological point of view, the prisoners' dilemma paradigm was used for a novel purpose for its potential to elicit conflict. The simulation indeed had the potential to produce a combination of cheating and winning as well as being moral and losing, dual

roles (cheating and loosing) and cooperating (being moral and winning) so Wojciszke's (1994) four-fold classification of actions by the dimensions of competence and morality could be used as a theoretical framework. Immoral behaviour occurred organically as a byproduct of the structure that provided the basis for conflict. This was coupled with the fact that students actually worked together in a quasi-experimental setting. Although the competence-related consequences of the simulation were symbolic (eg. symbolic gains and losses) the relational dynamics and consequences were real due to the nature of this design. Regarding level of acquaintance, after eliminating a small portion of subjects that were closely related, the sample was homogenous characterized by low level of intimacy. This way, the sample and design models certain types of workplace- or student communities where same-status people work in small teams in a mixed-motive interdependence setting (Dreu, 2010). It is also important to mention that the prisoners' dilemma simulations are widely used across business education so it is also of value to investigate this particular pedagogical method from a conflict-related perspective.

3.5.2 Bi-dimensionality of conflict-related social cognition and needs

A large portion of the investigation focused on testing whether conflict-related social cognition and interpersonal needs can also be characterized by the two-dimensional nature that have been universally identified in conflict-free settings (see Fiske, Cuddy, Glick, 2007). The analysis confirmed that self- and other-perception as well as state-like conflict-related needs and trait interpersonal needs have a two-dimensional nature that consist of a moral-social domain and a competence/agency domain. Both in case of self- and other-perception (H1A and H1B) cooperation, warmth and morality fell on the first factor that was labelled as Morality whereas competence, control and strength items fell on the second factor labelled as Dominance. The Morality factor explained 50 percent of the variance in other-perception whereas the Dominance factor explained about and additional 25 percent. This is in line with Wojciszke's (2005) findings in conflict-free global impression of others. Regarding self-perception, the Morality explained 41 percent of the total variance and the Dominance factor explained an additional 25 percent. I concluded that in conflict morality becomes a salient factor even in self-perception.

In both cases it was found that the competence (smart-naïve) item fell also on the Morality factor with negative valence and I attributed this to the nature of the task that allowed the smart but unethical and naïve but honest cultural stereotype to become part of the

interpretation pattern. This is in line with Fiske and colleaues' (2012) findings in relation to mixed stereotype content in the context of group perception where envious stereotypes contained successful but undeserving social groups whereas paternalistic stereotypes contained incompetent but deserving ones. In a replication of the SCM, Russell and Fiske (2008) identified the cooperation-competition dimension as the determining domain in perception of warmth in the interpersonal setting.

While the presence of conflict is oftentimes implicit and abstract in stereotyping (eg. competition in the job market or in college admissions or loading the welfare system), it was explicit and concrete in the context of this study. The concept of conflict however provides a relevant framework also in the case of more abstract perceptual processes like stereotypes. It shows how shifting the framework of the communication from zero-sum to nonzero-sum interpretations could potentially lead to different feelings, attitudes and behaviours in relation to others (Cuddy, Fiske, Glick, 2008).

An important result of this study was that besides social cognition, both state- and trait interpersonal needs show a bi-dimensional nature with the postulated content. The trait interpersonal needs assessment, the FIRO-B questionnaire (Schutz, 1958) used in this study is unrelated to conflict. It measures people's interpersonal needs for affection, inclusion and control and has been widely used in the organizational sector to predict and improve teamwork efficiency. Both from a conceptual and from a methodological point of view it was important to test the factor structure of the measure as its external validity has been questioned (Wiedemann, Waxenberg, Mone, 1979, Fisher, Macrosson, Walker, 1995). The results confirmed the two-factor as opposed to the three-factor structure (H12B). It was found that from the six subscales, expressed and wanted affection as well as expressed and wanted inclusion fell on the same factor labelled as Warmth that explained 43 percent of the total variance. The second factor labelled as Dominance explained 20 percent of the variance contained expressed and wanted control of inverse valence. It is an important finding because trait and state-needs are the basis of intervention plans. I argue that based on the growing number of empirical evidence and the emerging theoretical framework, it would be important to revise existing applications of FIRO-B and put more emphasis on the warmth/morality and the competence/dominance dimensions and their manifestations in the applied context.

Nadler and Shnabel (2015) also derived conflict-related state-like needs from the Big Two theory. In this study the bi-dimensionality of conflict-related needs have also been confirmed (H10A). The authors of the needs-based model assume that depending on the actual conflict situation, different aspects of the higher-order agency and moral-social need dimension become more relevant or salient. This study aimed to grasp the multifaceted nature of the dimensions and confirmed that various aspects of communion such as acceptance, morality, understanding, harmlessness and well-meaning fell on the same factor labelled as the Moral-Social dimension that accounted for 44 percent of the total variance. Various aspects of agency such as control, competence, strength and worthiness fell on the second factor labelled as Agency and it explained an additional 17 percent of the variance. One difference from social cognition and trait needs results was however that in case of state-like needs the two factors (Moral-Social dimension and Agency) showed a much higher correlation. In other words, the two conflict-related need-factors were related whereas the perceptual factors had a rather independent relation between them.

In conclusion, the results support the two-dimensional nature of social cognition in conflict and they confirmed the bi-dimensionality of both state-and trait interpersonal needs. They also confirm the content of the dimensions and the primacy of Morality both in conflict-related other- and self-perception. As responding to needs is crucial in designing interventions taking into consideration these results is of importance.

3.5.3 Social cognition in conflict

Self- and other- perception in conflict was examined according to conflict role of cheaters, victims, duals and cooperatives. Three moral-social dimensions (competition-cooperation, morality and warmth) and three competence/agency related domains (competence, control and strength) were measured and it was found that victims and cheaters significantly differed on each items in both self-perception and other-perception (perceived strength reached only tendential significance). In perceiving their team partner (H2A, H2B) cheaters perceived victims significantly less competent, strong and low control but significantly warmer, more honest and cooperative. Victims perceived their cheater partners signficanclty less warm, moral and cooperative but significantly more competent, strong and controlling. Duals and cooperatives were in symmetrical position which meant they evaluated dual and cooperative counterparts in their evaluations. Duals

were similar to victims in their moral-social perceptions: they also perceived their partners as immoral and competitive although in case of warmth their evaluation was neutral. Regarding competence-based items, duals were also similar to victims' social evaluations. They perceived their partners as rather smart, somewhat strong and quite neutral in their judgement of control. Cooperatives on the other hand demonstrated an interesting perceptual pattern. On the moral-social items their judgements were stronger and positive, they perceived their partners as highly warm, honest and cooperative. Interestingly, on each competence item cooperatives had very neutral evaluations.

For groups that experienced conflict (cheaters, victims and duals) it is understandable that in their other-perceptin the moral-social dimension dominates over competence. For cooperatives, who did not experience conflict, each moral-social item also emerged as relevant while none of the competence related items born significance. This result indirectly supports Wojciszke and colleagues' (1994) findings that virtuous success is more likely to be interpreted in moral as opposed to competency terms by observers or recipients.

In the analysis of self-perception (H3A and H3B), a similar pattern was found. Significant differences between the four groups on all six items (self-perceived cooperation, warmth, morality, competence, strength and control) were detected. Cheaters perceived themselves significantly differently on each item compared to victims. On the moral social dimensions victims perceived themselves significantly higher in morality, warmth and cooperation compared to cheaters who perceived themselves as immoral, competitive and neutral regarding warmth. On the competence dimensions cheaters perceived themselves significantly higher on competence, strength and control whereas victims perceived themselves as naïve, having little strength or control. Duals were similar on most dimensions to cheaters' self-perceptions, rating themselves rather immoral and competitive but they perceived themselves as warm. Additionally, they saw themselves as highly smart, strong and somewhat controlling. Cooperatives showed a similar pattern to their other-perception pattern although the intensity between the moral and the competence items was less (but these differences were not significant). Cooperatives, as expected, perceived themselves only in positive terms, as highly moral, cooperative and warm, and somewhat strong and controlling and almost neutral on competence. Also as expected, judged by the intensity of ratings, morality (honest-deceptive) and competence (smart-naive) emerged as salient items of the two factors.

Hypothesis 4 tested the Dual Perspective Model's (Wojciszke, Baryla, Parzuchowski, Szymkow, Abele, 2011; Abele and Wojciszke, 2014) implications on social cognition using the four-fold classification of action framework (Wojciszke, 1994). For this, morality and competence were taken as the two dimensions that had emerged as most salient in both other- and self-perceptions, to test the postulated pattern of self- and other-perception according to conflict role as shown on Table 5. As hypothesized it was found that cheaters perceived themselves as immoral actors (highly competent but low on morality) and perceived victims as moral recipient (as opposed to actors) (being low on competence but high on morality). Victims complemented cheaters' pattern by perceiving themselves as moral recipients being highly moral but low on competence and they evaluated cheaters as immoral actors (highly competent but immoral). The differences on both self- and other-perception dimension were significant for both roles. These results are in accordance with the needs-based model of reconciliation (Shnabel and Nadler, 2008) that states that in a conflict victims suffer impairment in their sense of agency and offenders suffer impairment in their public moral image.

For symmetrical roles I hypothesized that duals' self-perception would be similar to cheaters (as immoral actors) whereas evaluation of their dual partner would be similar to victims' judgement of cheaters (as immoral actors). I have found this pattern and the differences were significant in both self- and other-perception.

It is important to compare results of self-perception with conflict-related needs. Duals perceived themselves as highly competent, strong and slightly controlling while at the same time they showed the highest levels of most agency-related need items such as need for competence, worthiness and strength. This result draws the attention on the importance of the potentially diverging nature of self-perception and needs.

The hypothesis regarding cooperatives was only partially confirmed. I postulated that cooperatives will be high on both competence and morality in both self- (moral actor) and other-perception (moral actor). While both dimensions were in the positive range, perceived as well as self-rated morality were significantly higher than perceived and self-rated competence that was close to neutral. This was an unexpected result and it showed that the other team's morality as well as self-perceived morality emerged as the most salient and relevant aspect in the virtuous success setting. While in other-perception it is

in line with Wojciszke's (1994) theorizing, in self-perception agency is postulated as a more pronounced domain. In terms of the twofold categorization this means that cooperatives perceived both themselves and their cooperative partners rather as moral recipients than moral actors. In other words, cooperatives perception was completely dominated by the morality aspect and they disregarded the fact that to reach virtuous success the competence (recognizing the mutually winning strategy) was also necessary. It can be concluded that for cooperatives, in a mixed motive interdependence context, morality has become the dominant perceptual dimenson not only in other- but also self-perception.

These results urge reflections on implications in perception patterns in conflict. Whereas for cheaters (in sinful success) the dishonest strategy is associated with smartness, for cooperatives (in virtuous success) the honest strategy is not associated with competence. It might have been because cooperatives perceptual space was dominated by the risk they took by trusting their partner. Importantly, the question is wether cooperatives could capitalize on their success despite perceiving themselves as neutral in terms of competence. If we look at the results on positive competence-related intrapersonal emotions we can see, that cooperatives, similar to cheaters, experienced significantly higher levels of pride in comparison to vicitms. In other words, on an emotional level, cooperatives showed the highest level of pride as a result.

3.5.4 The model's extension on conflict-related morality- and competence-based emotions

I developed an extension of the model of social cognition in conflict to add social and moral emotions. Authors of the DPM (Wojciszke et al., 2011) and SCM (Cuddy et al., 2008) extended their models with cognition-based interpersonal emotions which means that emotions are influenced by the content of the social perception and attribution (Weiner et al., 1982) and more particularly moral emotions are the ones that can be related to ethical concepts of right or wrong. This extension derived its postulates on self- and other-perception dimensions of competence and morality. In the theorizing competence-based emotions originated from the success or failure (winning or losing) experiences whereas morality-induced emotions were related to immoral (cheating) or moral (honest) behaviour of the self and the other. Based on these dimensions it was postulated that the

self-competence aspect of emotions are pride and self-confidence for winners (cheaters and cooperatives) and shame for losers (victims). It was also hypothesized that due to social comparison, rivalry schadenfreude will emerge from the part of cheaters (for maximizing the difference between the two groups) and for duals (for acknowledging that both teams had the same logic that resulted in common loss). Self-aspect of the morality dimension was theorized as guilt and bad conscience in case of cheating (for cheaters). No specific emotion was related to self-perceived morality, as more sources argue, moral behaviour and cooperation are norms by default. In addition, moral behaviour was thought not to be diagnostic of trait morality (Skowronski and Carlston, 1987). Emotions that were derived by the perceived competence of the other were hypothesized to vary based on conflict role. For cooperatives, these were respect and appreciation (acknowledging finding the mutually beneficial strategy), pity for cheaters (for perceiving victims as naïve but undeserving of their misfortune) and intimidation for victims (for perceiving cheaters as very smart and competitive which can be perceived as a competence-threat). The last group of emotions derived from the perception of the other's morality. In case of cooperatives trust was postulated stemming from the partner's honesty and reliability and distrust was hypothesized to be characteristic of victims and duals due to cheating. Cheaters were thought to have compassion, an emotion that motivates more active facilitation than pity. Victims were theorized to feel anger, vengefulness, resentment and contempt derived by the other team's perceived (lack of) morality. Duals were not hypothesized to have a specific emotion or one where they would show the highest intensity. Duals were postulated to feel high levels of distrust and some levels of rivalry schadenfreude.

A factor analysis supported the model conceptually. A four-factor solution emerged that contained victims' emotional profile: morality-based anger, vengefulness, resentment, contempt and competence-based shame and intimidation accounting for 28 percent of the total variance. The second factor that accounted for 19 percent of the variance was labelled as cheaters' emotional profile that contained morality-based guilt, bad conscience and compassion as well as competence-based schadenfreude and pity. The fourth factor accounted for almost 8 percent of the variance contained cooperative-specific emotions such as the morality-based trust and the competence-based self-confidence, respect and appreciation. The third factor that accounted for 12 percent of the variance contained self-competence-based emotions of pride, self-confidence and shame

as well as schadenfreude. The factor-analysis and structure supported our model by revealing the pattern of specific emotions that were conceptually related to one another.

The investigation of differences according to conflict roles supported the main hypotheses. In case of self-competence-based emotions (H6B1), as hypothesized, winners like cooperatives showed significantly higher levels of pride and self-competence compared to victims, similar was the case for cheaters in case of pride and tendential difference was detected in case of self-confidence. Shame did not result in significant differences between the groups and showed a floor effect. I postulated that it was due to the fact that the symbolic loss in the simulation was not self-relevant or important to have the potential to elicit shame. Despite schadenfreude was an emotion aslo reported of very low intensity, cheaters reported significantly higher levels compared to cooperatives and tendentially compared to victims. Duals were also tendentially higher on schadenfreude than cooperatives but were not statistically different from victims. Self-competence-based emotions showed the expected pattern with the exception of shame as it seemed the task did not elicit this emotion. Shame on the other hand was shown to be conceptually related to the victims' emotions factor as well as the self-competence-based factor and inversely to the cheaters' emotions factor.

Cooperatives' interpersonal morality and competence-based emotions (H6B2) of trust, appreciation and respect showed the hypothesized pattern. Cooperatives were significantly higher on trust compared to all three groups and significantly higher on appreciation and respect compared to victims and at least tendentionally different from duals but were not statistically different from cheaters.

Cheaters' emotions also showed the postulated pattern (H6B3). Cheaters reported significantly higher levels of self-immorality-induced guilt and bad conscience as well as competence-based interpersonal pity compared to all three groups (in case of bad conscience the difference between cheaters and duals was only tendential). In case of compassion cheaters had significantly higher levels than victims and tendentionally higher levels compared to duals and cooperatives.

As for victims' emotional profile (H6B4), perceived immorality induced emotions such as anger, vengefulness, resentment and contempt were reported by victims significantly higher levels compared to all three groups (in the case of vengefulness victims were only tendentionally different from duals). In case of competence-based interpersonal emotion

of intimidation no difference was found according to conflict roles due to a floor effect. I postulate that in the context of the simulation game, morality may have emerged as much more relevant as opposed to competence because of the presence of cheating. In addition, the task might not have had the potential to elicit competence-threat as it did not involve explicit social comparison. Nevertheless, intimidation fell on the victims' factor and inversely on the cheater factor, as hypothesized.

Duals were not expected and were not found to show significant differences from all groups, in other words (H6B5), I did not find specific emotions from this list that were solely dual-specific. Duals were found to be statistically similar to cheaters on victim-related emotions and they were similar to victims on both cheater- and cooperative-specific emotions. This means that in each comparison that revealed signigicance between groups, there was at least one group that showed significantly higher levels of the given emotion compared to duals. As hypothesized, duals had significantly lower levels of trust compared to cheaters and cooperatives. In case of schadenfreude, duals as expected, were tendentionally higher compared to cooperatives but showed no statistical difference compared to cheaters or victims.

To conclude, both the conceptual factor analysis and the group comparisons give support to the theoretical model of morality- and competence-based emotions in self- and other-perception.

3.5.5 Attribution patterns according to conflict role

As hypothesized (H7) attribution pattern differed according to conflict role. Cheaters reported significantly higher levels of self-attribution compared to the other three groups. Cheaters can be conceptualized in the framework of sinful success. When the outcome is attributed to the self it could pertain to the competence aspect (winning) and the sinful aspect (cheating). This result cannot tell which of the two aspects were taken into consideration when cheaters replied. Nonetheless, as our item asked about attribution of the final outcome therefore it is likely to have induced a competence-based answer in case of cheaters.

Victims on the other hand scored highest on the other attribution item, significantly higher than cooperatives and tendentionally higher than cheaters and duals. Victims were conceptualized in the virtuous failure framework and the results show that they tend to attribute their failure to the immorality of their cheater opponents. Wojciszke's (1994) and the DPM (Wojciszke et al., 2011) argue that people's self-perception is primarily agency dominated while their other-perception is morality driven. In case of success and failure attributions it can be concluded that cheaters were more likely to associate their success to themselves (agentic content) whereas victims' were more likely to interpret the outcome to the immorality of the other team as opposed to blaming themselves for the failure as postulated by the Dual Perpective Model.

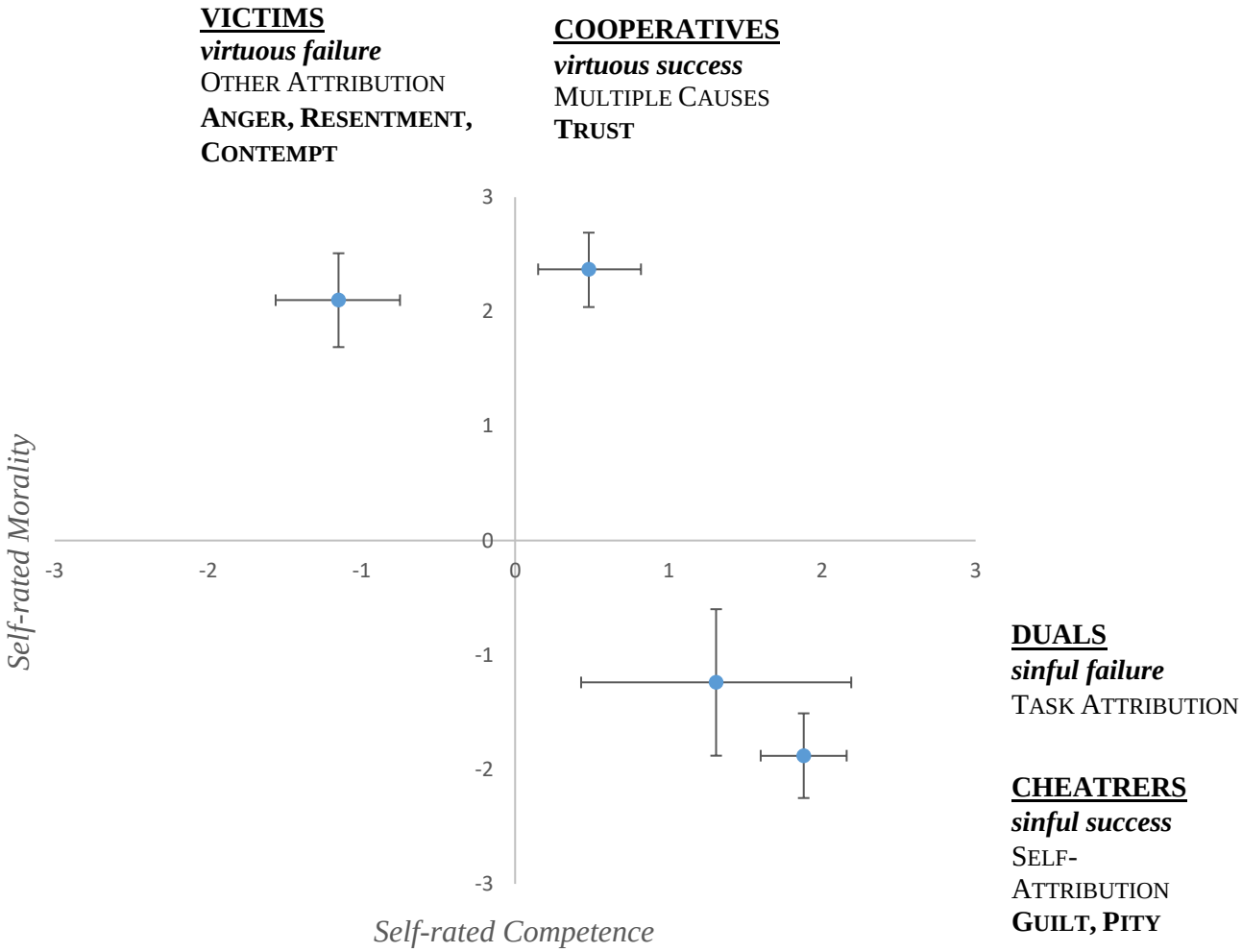
Duals reported the highest levels of task-attribution and this difference reached tendential significance in comparison to all three other groups. This means that due to the symmetrical nature of cheating and losing of the sinful failure framework the nature of the task became most salient when reasoning about the outcome. Cooperatives seemed to attribute their virtuous success equally to self, other and task scoring a medium mean on each items. This is as if duals blamed the setting, as an external reason for their sinful failure whereas cooperatives attributed their virtuous success to a constellation of a number of factors including self, other and situation with equal portion.

Attributions also showed the expected correlations with moral emotions. Self-attribution was significantly, weakly and positively related to guilt and pity whereas other-attribution was significantly, weakly and positively associated with anger supporting Weiner and colleagues (1982) model.

3.5.6 Extended model of self-perception in conflict

Figure 17. presented below summarizes the previously overviewed results of conflict-related self-perceptions extended with attribution and signature emotions based on conflict role.

Figure 17. *Extended model of self-perception, outcome attributions and signature emotions in conflict*



Note. Group means are presented with 95% Confidence Intervals. Signature emotions are emotions that significantly differentiated the conflict role group from all three other groups.

The figure shows cheaters', cooperatives', duals' and cheaters' self- perception on the morality and competence dimensions. The figure is extended with role-specific attribution and signature emotions.

3.5.7 Conflict-related interpersonal needs according to conflict roles

After establishing the bi-dimensionality of state-like needs of morality and agency (H10A) discussed above, I tested their differences between cheaters, victims and duals (H10B). Agentic need items included need for control, worthiness, competence and strength whereas the moral-social need construct included need for acceptance, morality, understanding, harmlessness and well-meaning. On composite measures of agentic and moral-social needs it was found that victims and duals showed elevated levels on agentic needs whereas cheaters and duals showed high levels of moral-social needs. Cheaters indicated significantly higher moral-social needs compared to victims and they were tendentionally higher from duals. In contrast, victims indicated tendentionally higher levels of agentic needs compared to chaters ($p=0.008$) so did duals ($p=0.003$). Duals reported a high need for both agency and morality. These results support the theory on the difference between victims' agency-related impairments and needs and cheaters' moral-social impairments and needs as well as duals elevated levels of needs on both domains.

3.5.8 Empowerment and acceptance messages and reconciliation

A tentative analysis was executed to investigate the role of empowerment and acceptance messages on participants' willingness to reconcile. Composite measures of the two types of feedback messages were created by factor analysis. The empowerment message factor contained message of apology, acknowledgement of dishonesty and message of good intention. The acceptance message factor comprised message of acceptance (warmth), message of restoring public moral image (morality), message of understanding, worthiness and good intention. A 3X2 interactional model of conflict role (cheaters, victims, duals) and type of feedback message (empowerment or acceptance) investigated the hypothesis of the NBMR (Shnabel and Nadler, 2008) whereas empowerment messages coming from the offender would be more efficient in increasing victims' willingness to reconcile; acceptance messages coming from victims would increase offenders' reconciliatory attitudes.

The results showed that interaction between cheater role and acceptance message had a significant positive effect on willingness to reconcile ($p=0.001$) while the interaction

between cheater role and empowerment message was not significant. In case of victims, the interaction between victim role and empowerment message reached a p=0.009 significance which is considered as a tendential relationship in this study after adjusting for multiple testing. This means that empowerment message for victims increased reconciliatory attitudes. The interaction between victim role and acceptance message was not found significant.

Hypothesis regarding duals were also tested where I expected both message types to increase reconciliation as it had been confirmed that duals had elevated levels of both agency and moral-social needs. The interaction between dual role and acceptance message reached a tendential significance level (p=0.025) that was considered as a support for the model. Dual role and empowerment message however did not reach statistical significance.

As described earlier this analysis was a tentative one as no control group was inserted. The lack of a control condition prevents us from knowing if the increase in reconciliatory attitudes were in fact a result of the feedback message intervention or alternative causes might have played a role. For victims for example, unpleasant emotions are likely to reduce just by time. Resolving a cognitive dissonance between lower levels of prosocial attitudes and the fact that partner teams are likely to have to work together eventually in the future in the class can also be counted as a factor that forsters reconciliatory attitudes. Bearing this in mind, it can be concluded that further investigation of the relevance of the needs-based model in real-life interpersonal conflicts is a valuable cause for future research direction.

3.5.9 Limitations and future directions

Besides the contributions, it is important to discuss limitations of this study. As described in the hypotheses and methods sections, although the quasi-experimental design enhances ecological validity it masks possible confounding variables. Since the design lacked randomized manipulation of conflict roles, causal relations can not be inferred. Efforts were made however to map potential background variables, such as trait interpersonal needs measure (FIRO-B) and level of acquaintance. After data-cleaning the sample became homogenous regarding level of closenees between teams indicating low intimacy level between participants. Trait interpersonal needs showed no significant differences between conflict roles. This finding is in line with Aydin and colleagues (2019) work where they found that participants' interaction goals in a conflict were influenced by their conflict role (advantaged vs. disadvantaged group membership) and dispositional preferences regarding interaction goals did not moderate this effect.

In addition, the asymmetry of self and other judgement needs to be taken into consideration. While participants were asked to report about themselves individually, they were requested to formulate judgements about the opponent as a team. It is also important to note that in more cases teams of three instead of teams of two participated in the simulation due to the odd number of students. Teams of two may have different internal dynamics than teams of three which may also influence the results. Effects of teams were dealt with in this study in two ways. On the one hand, the non-independence of the observations was controlled for by using generalized estimating equations. Secondly, one item investigated perceived team cohesion that showed no significant differences according to conflict roles.

As explained in detail in the hypotheses and methods sections, the investigation of repeated measures resulted in a tentative analysis due to lack of control group. When testing the effects of empowerment and acceptance messages each group received feedbacks, there was a no-feedback control group included for the earlier explained reasons. This fact was taken into account at the interpretation of the results.

An important contribution of this study was the development of the emotional extension of the Dual Perspective Model (Wojciszke et al., 2011). It is important to note however

that individuals differ in their abilities to recognize their own emotions that may influence the results.

In conclusion, I propose a number of research directions for the future. There is some evidence suggesting that besides the well-established bi-dimensionality of social cognition, interpersonal conflict-related needs also show such duality and content (Shnabel and Nalder, 2008) and results of this study supported this notion. Regarding trait interpersonal needs the evidence is controversial and the results confirmed similar bi-dimensionality for trait needs. It is important to mount further evidence in case of both state- and trait needs to confirm their bi-dimensional nature. It is especially important to inform practice about these results so that interventions could be developed on these basis.

There has been little empiric evidence on the development and confirmation of a comprehensive emotional map in conflict elicited by mixed motive interdependent settings that were hypothesized to adequately model certain types of school-, workplace- or community conflicts. It would be worthy to further test the role-specific emotional matrix in various competitive-cooperative settings both experimentally and in ecologically valid contexts. In further attempts to connect theory with practice, elaboration and testing of the Needs-based Model of Reconciliation (Nadler and Shnabel, 2015) in real life setting would enrich both fields.

Further efforts to develop evidence-based conflict-management interventions in various real-life contexts that are informed by the model are important. I sustain that developing not only intervention but also prevention programs based on our knowledge of the role of empowerment and acceptance in communication is an important new avenue ahead. In this field, marrying the theoretical and empirical knowledge originated from the needs-based model combined with knowledge mounted by restorative justice practices would be a fruitful direction in, for example, developing programs in schools and workplaces that aim to create and sustain healthy work and community environments.

4 Research 2. : Qualitative Investigation of the Relevance of the Needs-based Model of Reconciliation in a Restorative Justice Setting[14]

4.1 Introduction: Rationale for bringing the NBMR and restorative justice practices together

The present study aims to examine the relevance of the Needs-based Model of Reconciliation (Shnabel and Nadler, 2008) in relation to restorative practices. Reasons for bringing together the theory with the practice are as follows:

4.1.1.1 The conceptualization of conflict

The theoretical model and restorative justice share a similar perspective on conflict: both have a focus on dealing with the intangible psychological, emotional and motivational needs of the parties involved that are aimed to be addressed in the process of reconciliation.

4.1.1.2 The conceptualization of involved parties

As both approaches refer to conflict that originates from an act or acts of victimization, both of them conceptualize involved participants in asymmetrical roles distinguishing between victims and offenders. While all parties are treated and seen as equals in the process, both approaches consider different needs originating from the different roles.

4.1.1.3 The conceptualization of the way to reconcile

Both the theoretical model and restorative justice see "acts of social exchange" (Shnabel and Nadler, 2008), in other words, constructive interaction between victim and offender as the way to achieve reconciliation. Both of them have a dialogue-based approach and put down principles defining what constructive communication entails. Nwoye (2009)

[14] Research 2 was published in the Hungarian Journal of Applied Psychology in co-authorship with Borbála Fellegi and Dóra Szegő. I declare that Research 2, in its entirety, is my own intellectual property. Author 2 and 3 contributed to the work by providing the data and by contributing to the data-processing (transcription and coding). Reference:
Z. Papp Zs., Fellegi, B., Szegő D. (2016) Constructive and destructive dialogues between victims and offenders. *Alkalmazott Pszichológia*, 16(4), 93-112.

refers to restorative justice conferencing as a method of promoting forgiveness "facilitated by a constructive and voluntary dialogue between protagonists, executing in the presence of a witnessing community" (p.124.)

Finally, the authors of the Needs-Based Model also mention the relevance of restorative justice to their theory. They find connection between theory and practice by stating that "these (restorative) practices involve nurturing the expression of vulnerable emotions and our model can cast light upon the nature of these emotions as well as on the psychological needs that lie beneath them" (Shnabel and Nadler, 2008, p.131.) and by suggesting that "empowering victims may be achieved through the developing of restorative justice practices (Shnabel and Nadler, 2010. p. 20.), acknowledging its relevance for offenders, as well. In reference to future research, the authors state that "the Needs-Based Model provides us with perceptive insights regarding *what* messages victims and perpetrators should convey to their adversaries in order to promote their willingness to reconcile, but it is still necessary to learn *how* to make victims and perpetrators ready to convey these messages (p. 23.), and continue saying that "perhaps most essential research direction would be illuminating the ways in which the process described by the Needs-Based Model may be set in motion" (p.22.)[15] By examining how such needs and messages manifest in real life scenes, one step is made towards this goal.

[15] It is also important to note that restorative justice practices have to be carefully examined in cases involving structural inequalities. The question is whether the restorative session itself is sufficient to address the underlying structural inequalities (eg. the disadvantaged group member often enters the legal system as offender and the member of the advantaged group is the victim). To better word, the question is what needs to be done so that structural inequalities could be addressed safely and productively in restorative sessions that are usually established to attempt to repare a single episode of wrong-doing.

4.2 Research goals and questions

The present study wishes to investigate real-life verbal communicational manifestations of content categories described by the NBMR in a conflict management process. A review of verbal and non-verbal manifestations of agentic and moral contents was presented in Section 2.

The model distinguishes between role-specific needs (agency and morality) as well as role-specific empowerment and acceptance messages. Needs and messages can both be conveyed via verbal communication. Needs can manifest verbally by participants' verbal self-presentations as moral or agentic in form of self-focused communications (statements about oneself). Empowerment and acceptance message manifest in form of positive other-focused communications (statement about the other). Postulates are summarized by Table 25. below.

Table 25. *Communication aspects of the Needs-Based Model of Reconciliation and the Magnitude Gap*

	CONFLICT ROLE	**VICTIM**	**OFFENDER**
	IMPAIRED IDENTITY DIMENSION	Agency	Morality
SELF-FOCUSED COMMU-NICATION	SELF-PRESENTATION *(self-restorative effort)*	Self-presentation as agentic	Self-presentation as moral
OTHER-FOCUSED COMMUNICATION	MAGNITUDE GAP *(impediment of reconciliation)*	Emphasizing the crime/unjust/consequences	Minimizing the crime/unjust/consequences
	RESTORATIVE MESSAGES TO ADVERSARY *(fostering reconciliation)*	Messages of Empowerment from offender	Messages of Acceptance from victim

4.2.1.1 Research questions

Based on the postulates of the model as well as the reviewed literature 3 points are aimed to be investigated:

(1) **Investigate verbal manifestations** of the NBMR in real-life conflict setting. Can examples of each content category (agentic or moral need, empowerment or acceptance messages) of verbal communication be found in real-life conflicts? As concluded earlier, whereas verbal empathy messages are usual part of life, agency related needs as well as empowerment messages (other than asking for apology and expressing remorse) are more challenging to verbalize. For this reason, preference for cases involving high number of victims were preferred in order to have a wider variety of data from victims.

The aim was to identify verbal manifestations of agentic and moral content in conflict to mount evidence from real-life praxis. For this reason, counts of expressions as well as illustrations were planned to present.

(2) **Investigate the source of the communication**. The NBMR makes clear postulates about conflict roles to be associated with specific needs: victims are hypothesized to have and therefore communicate heightened agentic needs whereas perpetrators are posited to have and therefore communicate heightened moral needs. Regarding restorative messages, empowerment content is hypothesized to be conveyed by offenders to victims whereas acceptance content is postulated to be conveyed by victims to offenders. The aim here was to investigate whether communication of agentic and moral needs are formulated by participants of the hypothesized conflict role (victim and offender, respectively). Also, wheather postivie messages of empowerment and acceptance are conveyed by participants in the hypothesized conflict role (offender and victim, respectively).

(3) **Valence of other-focused communication**: constructive or destructive. Restorative messages are hypothesized to foster reconciliation through fulfilling message recipients' interpersonal (agentic or moral) needs. Complementary to restorative messages communication reflecting magnitude gap (Baumeister, 1996) perceptual distortions are shown to impede reconciliation.

Communication of needs are not theorized to have either beneficial or hindering effects (although their presence is postulated to be negatively associated with reconciliation there is no hypothesis about the effect of communicating them). For this reason, the aim was to count constructive and destructive messages (as well as to present illustrations). While the present setting did not allow for collection of pre- and post data-collection (due to data-protection), results can be analysed in light of traditional measures of success of a restorative encounter such as reaching an agreement as well as offender's fulfilment of the agreement that were obtained.

In the present study a qualitative approach was chosen applying the method of content analysis using a priori established categories based on the theoretical models. General uses of content analyses include the description of trends in communication, description of communication patterns as well as comparison of communication content to standards (Berelson, 1952).

4.3 Method

4.3.1 Data collection

Data was collected from an EU funded project titled "Developing Peacemaking Circles in a European Context: How can Peacemaking Circles be implemented in countries governed by the "principle of legality"?'[16] executed in the period of September 2011 until May 2013 with international partnership of Germany, Belgium and Hungary. Hungarian data was collected by researchers of Foresee Research Group[17]. Restorative peacemaking circles took place in four counties in Hungary, sessions were held at the county courts. Cases were referred to mediation by judges and were prepared and conducted by two trained facilitators. Each participant was informed about data registration via dictaphone for research purposes and was requested to sign an informed consent.

4.3.2 Methodological characteristics of peace-making circles

In the present study, the cases were conducted using a restorative method called peacemaking circles. Peacemaking circle sessions invite a larger circle of audience affected by the crime or wrongdoing as well as legal personnel (police officers, judges, probation officers, psychologists and so on) as experts. In terms of methodology, the circle is held by two trained facilitators and the flow of communication goes in a circle by the help of a symbolic object called the talking piece. A session usually consists of four stages: (1) meeting and introduction, (2) trust-building, (3) identifying issues, (4) developing an action plan (Fellegi and Szegő, 2013).

An additional feature of peace-making circles is the structured nature of communication. A typical sequence consists of the facilitator asking a question (eg. How have you been affected by the crime?) and participants answer one after the other handing the talking piece to their neighbour once they are finished. This results in less space for direct interactions between participants. For this reason, in this study the focus was on

[16] Project No: JLS/2010/JPEN/AG/1609, the project was co-funded by the European Commission's Criminal Justice Programme, Directorate-General Justice, consortium leader: University of Tübingen

[17] Foresee Research Group: http://www.foresee.hu/en/
About the project: http://www.foresee.hu/en/segedoldalak/news/592/58f145060b/5/

investigating within-participants narratives and less focus was on analysing dialogues between participants.

4.3.3 Case selection and description

In the present study two cases are analysed. Selection of data (cases) was convenient, based on the availability of dictaphone registered material. Cases where each participant voice was identifiable were preferred. Cases where active conflict[18] was present were given preference. For the focus of the research described as part of Research goal 1, preference was given to cases involving a higher number of victims. It is important to note that during the case selection process the fact whether offenders complied with the agreement or not was not known but this data was obtained later on.

Restorative circle of Case 1 was held in the winter of 2011 in Békéscsaba County Court with the participation of one female offender and four victims (siblings), one victim's supporter (husband) and a judge (unrelated to the case). In this case, the offender was a new tenant moving in to the property after the victims, who left two old cars in the yard of the property that was taken away by offender, committing theft this way. Although the cars were of low financial value they were very important functionally and symbolically to the victims' whole family.

Restorative circle in Case 2 took place in Nyíregyháza County Court in the winter of 2012 with the presence of one juvenile female offender with her parents, three juvenile female victims with one or two accompanying parents, a related probation officer and an independent psychologist, as an expert. In this case victims and offenders were former friends and high-school students sharing the same dormitory room. The offender committed a series of small value thefts and lies (stating for example having cancer when it was not the case) for a longer period of time. Both sessions ended with an agreement but in Case 1 it was not fulfilled (Ehret, Dhont, Fellegi, Szegő, 2013).

[18] In certain cases the conflict has been resolved prior to the restorative session. Then the meeting becomes a formal beaurocratic procedure to close the case.

4.3.4 Categorization scheme

A categorization scheme was a priori established based on the reviewed literature to code victims' and offenders' communication (Baumeister et al., 1994; Exline and Baumeister, 2000; Shnabel and Nadler, 2008; Shnabel et al., 2009; Nwoye, 2009; Shnabel and Nadler, 2010). The categorization system is presented in Table 26. below.

Table 26. *Categorization and content coding of communication in conflict based on the Needs-based Model of Reconciliation and the Magnitude Gap*

Category 1 Expression of Needs	**Content category**	**Codes of expressions**	**Focus of communi-cation**	**Effect on recon-ciliation**
Morality (offender-need)	Self-presentation as moral	a) the speaker describes oneself as morally acceptable, good character b) the speaker denies being bad or criminal c) the speaker makes efforts to present oneself as likeable, agreeable, cooperative or socially acceptable	Self	unhypothesized
Agency (victim-need)	Self-presentation as agent	a) the speaker refers to having power over the other person b) the speaker makes effort to present oneself as able and competent	Self	unhypo-thesized

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Category 2 **Magnitude gap**	**Content category**	**Codes of expressions**	**Focus of communi-cation**	**Effect on recon-ciliation**
Morality (offender-need)	Magnitude gap expressions by offender	a) the speaker minimizes his or her responsibility in the crime b) the speaker minimizes the importance of the criminal act or its effects c) the speaker gives excuses, emphasizes mitigating circumstances d) the speaker redeems some purpose or merit of the transgression e) the speaker blames circumstances, others or the victim(s) (except for: blaming the self) f) the speaker engages in scapegoating (identifies other individual(s) or group(s) for the outcome) g) the speaker engages in competitive victimhood: when not in victim status the speaker acts or talks like the victim, (eg. mentions harms suffered, calls himself/herself explicitly victim, etc.) h) the speaker denies or negates the crime, or denies all responsibility (eg. claiming it was not him/her) i) the speaker claims to forget what happened (eg. claiming that he/she does not remember the event)	External (*circum-stances/ others/ victim)*	destructive
Agency (victim-need)	Magntiude gap expressions by victim	a) emphasizing the injustice suffered b) emphasizing the perpetrators' responsibility for the criminal act c) blaming the offender	External *(offender)*	destructive

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Category 3 Messages	**Content category**	**Codes of expressions**	**Focus of communi cation**	**Effect on recon-ciliation**
Morality (offender-need)	Messages of acceptance (hypothesized to benefit the offender the most coming from vicim)	a) expressions of understanding, empathy, sympathy, acknowledging hardships of the other party, (eg. not easy to live with the past, acknowledging the great pain suffered) b) noting that the other party is agreeable, likeable, "human", nice, interpersonally pleasant, etc. c) expressing willingness for future positive or cooperative relationship or trust d) emphasizing common humanity or that humans make mistakes e) forgiving, accepting apology, granting apology	External *(victim)*	constructive
Agency (victim-need)	Messages of empowerment (hypothesized to benefit the victim coming from the offender)	A) Responsibility-taking: a) taking partial or full responsibility for what happened, admitting responsibility b) expressing feelings of guilt, shame or remorse c) acknowledging that what happened was unjust d) asking for apology, apologizing	External *(offender)*	constructive
		B) Directly agency – restoring: a) acknowledging or praising the others' power or status b) acknowledging context-relevant competence (or skills related to competence) or context- relevant abilities c) acknowledging generally the other person's rights for self-determination and rights to control (their own future, fate, what is going to happen) d) acknowledging the other person's right for respect (feel strong, live with their heads up, proud) e) contributions and values (to the community)		

The categorization scheme contained three main categories: (1) communication of needs (need for restored public moral image and need for control), (2) indicators for destructive magnitude gap in communivation and (3) indicators for constructive communication: (a) messages of acceptance and (b) two types of messages of empowerment.

Category 1 contained communication of needs according to the Needs-Based Model: need for restored public moral image (being morally acceptable, good character; denial of being a bad person or criminal; making an effort to present oneself as likeable, agreeable, socially acceptable) and the need for control or power (referring to have power over the other; making an effort to present oneself as able and competent).

Category 2 contained indicators of magnitude gap in communication developped for offenders (minimizing responsibility or the importance of the criminal act and its consequences; giving excuses or mitigating circumstances; redeeming purpose or merit for the criminal act; blaming victim, circumstances or others; scapegoating; indicators of competitive victimhood; denying the crime or responsibility) and for victims (emphasizing injustice suffered; emphasizing the perpetrators' responsibility; blaming the offender; wish to punish offender; wish for revenge; inducing guilt in perpetrator; questioning offender's sincerity; refusing apology; questioning the possibility of a positive outcome with the offender).

Category 3 contained indicators for constructive communication described by the Needs-Based Model. Messages of acceptance consisted of expressions of empathy, sympathy, acknowledgement of hardships of the other party; expressions about the other's being agreeable, likeable, human or nice; expressing trust in the other or willingness for a positive, cooperative relation with the other in the future; emphasis on the other being human; forgiving, accepting or granting apology. Empowerment messages had two qualitatively different subcategories. One contained responsibility taking behaviours (admitting partial or full responsibility for the transgression; expressing feelings of guilt, shame or remorse; acknowledging unjust; asking for apology, apologizing) while the other contained behaviours of power restoration (acknowledging or praising the others' power or status or superiority; acknowledging context-relevant abilities of the other; acknowledging the other's rights for self-determination and rights to control their own life or future; acknowledging the other's right for respect, to feel strong or to be proud; acknowledging the other's contributions or value).

4.3.5 Procedure and coding

Altogether 5 hours of data of the two sessions (2 hours 23 minutes and 2 hours 34 minutes respectively), registered by dictaphone, was analysed. Only offenders' and primary victims' (one offender and four victims in Case 1 and one offender and three victims in Case 2) speech was transcribed and analyzed. Participants' speech was segmented based on utterances (one uninterrupted monoluge). Each utterance was content analysed based on the a priori established coding. Within utterances expressions of the three category contents (expressions of needs, magnitude gap and restorative messages) were identified, given the category code (eg. I.a). An expression was defined as a sentence or part of sentence. Self- interrupted expressions (eg. 'I'm sor..') did not qualify for the code. In case of other-focused communication (magnitude gap expressions and restorative messages) codes were given not only when participants communicated directly to the other member but also when they talked *about* them in their presence. Three coders coded the material, two were unaware of the theoretical postulates. Codes were later on reviewed, discussed and where needed, amendments were made based on consensual agreements. For the quantitative presentation, after finalizing the codes, codes were counted by participants, then similar participant roles were further summed. Excerpts that were to be included in the paper were translated to English by the author and were reviewed and corrected by the second coder.

4.4 Results

Table 27. shows the quantified results of the content analysis of the two cases.

Table 27. *Content analyses of two cases: Needs, desctructive and constructive communication*

	CATEGORIES OF EXPRESSIONS		Case 1		Case 2	
			Offender (1)	Primary victims (4)	Offender (1)	Primary victims (3)
Needs	**Need for public moral image**		4	0	7	0
	Need for power		*4*	2	0	2
Destructive comm	**Magnitude gap communication acts**		14	0	2	5
Constructive comm.	**Messages of acceptance**		*3*	1	*1*	5
	Messages of empowerment	Responsibility taking	7	0	8	0
		Power restoration	0	0	0	0

Note. Counts are presented.
Cells in grey indicate the postulates of the Needs based Model of Reconciliation (Shnabel and Nadler, 2008) Content of the w*hite cells* are not explained or derived by the model.
indicate destructive communication acts described by the magnitude gap concept.

The table shows that in both cases expressions of role-specific needs were present as hypothesized. Four and seven expressions of need for morality were expressed by offenders in Case 1 and 2, respectively. Regarding expressions of need for power two examples were found in both cases coming from victims. The ratio of need-communication is unbalanced: two offenders of the two cases altogether expressed 11 need expression for morality, whereas only 4 examples of need for power were expressed by altogether seven victims of the two cases. This is in line with the postulates that agentic needs are more difficult to verbalize. One untheorized category became exemplified by 4 expressions from the offender in Case 1 demonstrating need for power. In the following section illustration and analysis is presented.

Regarding destructive communication Case 1 is dominated by the offender's magnitude gap expressions of 14 instances whereas no destructive communication was detected from the part of the four victims. In Case 2, 2 expressions were found by the offender and altogether 5 expressions were detected by the four victims that accounted as destructive.

Regarding restorative messages, in both cases at least one expression of acceptance was detected from each conflict role category. As discussed in the overview, empathy messages are meaningful expressions on both sides in a conflict, they might not have the similar restorative power when it comes to victims' healing and reconciliatory attitudes. In Case 1 only one example was identified as conveying acceptance by victim (out of four victims), in Case 2, 5 expressions of acceptance were counted by three victims. In the first case, three expressions of empathy was delivered by the offender to the victims, whereas in Case 2, one similar instance was found.

Concerning messages of empowerment, the first type of empowerment message (apology and responsibility taking) were expressed a number of times by both offenders: 7 and 8 times in the first and second case, respectively. Type two empowerment message was not detected in either case. As discussed in the overview, messages of such kind are less verbalized in everyday communication in general, unless considering for example well-prepared public apologies.

In the following section, the presentation of the results together with examples are presented. Citations are followed by information on the case number (Case 1 or 2), role (Victim or Offender), age category (Adult or Juvenile) and gender (Male or Female) of the participant as well as the number of the participant (only in cases where more participants were in the same role) and the stage of the session it was delivered (1) meeting and introduction, 2) trust-building, 3) identifying issues, 4) developing an action plan).

4.4.1 Communication of needs: agency and morality

According to the Needs-Based Model, participants have different needs depending on their victim or offender status. Offenders have a need to restore their impaired public moral image by appearing as morally acceptable, good characters and by making efforts to present themselves as likeable, agreeable, cooperative or socially acceptable people. Several cues were identified that were in line with this postulate. The adult female offender in the car theft case denied the criminal label and emphasized morality in her family.

> *"..because I'm not a criminal or anything"* (…) *"and it's needless to say that I am not a criminal or at least I do not consider myself one"* [Case1 Adult female offender Stage2]
>
> *"so I really am not a criminal type, (..), my brother is a police officer, my daughter studies law"* [Case1 Adult female offender Stage3]

The juvenile offender also made efforts to show how her character had changed for the better since the series of lies and thefts took place to her former dormitory roommates who were the victims in this case.

> *"Although since then I went to see a psychologist and I put my life together. Since then I have a relationship for a few month, I have improved in my studies, you know I studied almost nothing before, now I have an average of 4,6-7 again. So I try to put my life back on track again."* [Case2 Juvenile female offender Stage3]

Victims on the other hand are described to have a need for control and power. Several expressions were found that were in line with this, when, for instance, an adult female victim expressed the following:

> *"It is not my goal that she (offender) would go to prison"* [Case1 Adult female victim3 Stage2]

Although in this statement the victim renounces to (ab)use her power over the offender, there is an indication that she is aware of such power difference. No examples were found in relation to victims' emphasizing own competence that would be relevant to the context (eg. acknowledging the ability protect one's car or belongings from theft). The examples above are in line with the theory.

In the needs category, four examples were found in Case 1, that were not explained by the NBMR. In these examples the offender described herself as being powerless and incompetent in relation to the amends asking for help and empowerment multiple times.

> *"I only would like someone to inform me about my rights how I could compensate them so that this case could come to a closure.* [Case1 Adult female offender Stage2]
>
> *"Somebody help me, tell me what I should start doing and I will."* [Case1 Adult female offender Stage3]

4.4.2 Magnitude gap expressions

Magnitude gap expressions are seen as impediment of reconciliation according to the Needs-Based Model. Mitigating circumstances were present most often: the juvenile offender mentioned them twice, the adult offender was coded six times. The adult offender demonstrated a wide variety of other examples of minimizing**,** blaming, scapegoating, and expressing competitive victimhood.

The following example was coded as minimizing for referring to the consequence of her transgression as a "fuss".

> *"I also want this to come to a closure as soon as possible and to end this fuss".* [Case1 Adult female offender Stage1]

Mentioning mitigating circumstances, such as acting out of a sudden impulse or anger were present six times.

> *"I did that thing then out of a sudden impulse (falters), I haven't thought it over, I was very angry in that very moment (...)"*[Case1 Adult female offender Stage2]

Scapegoating also appeared three times by the same offender in form of blaming a third person who was not present in the session.

> *"Practically I'm telling this to you Ildikó (victim), that it was a third person to create this mess between us."* [Case1 Adult female offender Stage1]

A typical example of competitive victimhood was presented by the same offender when reacting to victim's self-disclosure on how the crime had affected her. The offender repeats everything the victim had said just minutes before.

> *"because I have also become destroyed both mentally and in terms of health" (…) As I also work, I also have two kids, my health has also become destroyed"* [Case1 Adult female offender Stage2]

In Case 1 no experssions were found that matched the criteria of magnitude gap by victims. In case 2, the five examples consisted of refusing offender's apology, questioning the sincerity of offender's apology, showing lack of empathy and not having faith in a positive future with the perpetrator. From the context it is understood that the juvenile offender was a recidivist so the theme of offender's sincerity was recurrent and key. When the first thefts had been revealed in the dormitory, the roommates and former friends (the victims of this case) of the offender have forgiven her and have tried to help her. Later however the series of thefts and lies continued.

> *"We perceived that it did not affect you and I can't believe that you are honest now either. (sobs) I'm sorry. It hurts."* [Case2 Juvenile female victim1 Stage3]

> *"It might sound rude but it leaves me unaffected if she regretted or not. Because the fact that she regretted has not made it easier. At least, for me."* [Case2 Juvenile female victim3 Stage3]

4.4.3 Perspective taking behaviours 1. Messages of acceptance

According to the model, messages of acceptance are conveyed by victims to offenders showing empathy, sympathy, understanding and acceptance or acknowledging that the offender is a likeable, human, cooperative person.

One example was found in Case 1, while five examples were identified from the part of the juvenile victims expressing messages of acceptance towards their peer offender (accepting apology and expressing empathy or sympathy) in Case2.

> *"I only care about that your family can become normalized and your parents could accept you and your troubles would be solved. (Sobs)"* [Case2 Juvenile female victim Stage3]

Although messages of acceptance are theorized to be delivered by the victims, messages of love or likeability were also formed in both cases from the part of the offenders, as an emphasis of the good relationship prior to victimization. While in the first case the previous relationship between the victim and the offender was fairly irrelevant, in the case of the dormitory theft it was a friendship that became lost as a result of the series of wrongdoing.

> *"When they (victims) came to rent the apartment I told to Helga that I thought they were a very nice couple (…)"*[Case1 Adult female offender Stage3]
>
> *"I would also like you to know, now this will sound ridiculous because I have done these things but independent of what I have done I really loved all of you.* [Case2 Juvenile female offender Stage3]

Underived from the theory, offenders also showed empathy for victims' suffering.

> "*I did not want to hurt you, I don't know, I really don't know… I'm sorry, that's all I can say, nothing else. I also have memories so I know… now I know …"* [Case1 Adult female offender Stage3]

Although these expressions are not postulated by the theoretical model, from a restorative practice point of view, it is a hope that during the course of the session the offender would understand the consequences of his actions which can lead to expressions of empathy towards the victims.

4.4.4 Perspective taking behaviours 2. Messages of empowerment

In this section, two qualitatively different kinds of empowerment messages were pre-established. Many examples were seen of behaviours indicating responsibility taking by the offenders mostly in forms of apologizing, expressing guilt or regret and acknowledging the harm done. In terms of verbalizing emotions, regret and guilt appeared more times in the communication.

> *"I feel guilt. I know as it was mentioned that it cannot be seen but I feel it inside that I regret very much what I have done and I really hate myself I just hate myself.* [Case2 Juvenile female offender Stage 3]

> *"I really have regretted this whole thing, I also talked it over with my sister that something should happen, I even pay just let this be over."* [Case1 Adult female offender Stage3]

Asking for apology was also a common behaviour. In both cases apology was present in offenders' first statements in the very beginning of the session.

> *"I would like to say that I apologize (...)"*[Case1 Adult female offender Stage1]
>
> *"Well, I also would like to close this at last, and ask for apology as this cannot be undone, but as much as possible I have regretted this and I just wanted to state that."* [Case2 Juvenile female offender Stage1]

No examples were found for the second type of empowerment messages that demonstrate power restorative behaviours delivered by the offenders.

4.4.5 Destructive and constructive messages in light of the success indicators

Both theoretical models hypothesize constructive and destructive other-focused communication that are promoters or impediments of reconciliation. Research question 3 concerned with the investigation of the constructive-destructive nature of the data in light of the session outcomes (agreement and fulfilment of the agreement). In both cases the meeting ended with an agreement however in Case 1 the agreement was not fulfilled by the offender. While it is important to bear in mind that non-compliance can occur due to external reasons (eg. due to an unexpected change in offender's financial situation he or she is unable to pay the restitution agreed) I decided to include a detailed analysis of the offender's expressions in Case 1 to investigate some postulates between communication content and non-compliance.

Mere frequency data of various category expressions (shown by Table 27.) are insufficient to provide information on the dynamics, trends and the complexity of the sessions. From the point of view of success prediction based on content, an analysis of the evolution of the session is also important. The frequency data does not indicate at what stages of the session the magnitude gap expressions occurred. It is important to examine the timeline as it is possible to have a constructive turn after a destructive start. For this reason, the first statement and the concluding statement are presented wih its

content analysis by the offender in Case 1. First statements and concluding statements are of particular importance in a restorative session. The concluding statement occurs after the criminal event and its consequences have been discussed. After this, the facilitator usually asks the offender if he or she wished to react to what has been said.

Below the offender's first statement and concluding statement are presented as uninterrupted utterances.

Offender's first statement in Stage 1 (Case 1.)

> *"I'm XY* (offender's name). *I was the one who committed this out of a sudden impulse, I also came because it was offered as a possibility by the police and I also want this to come to a closure as soon as possible and to end this fuss. I would like to say that I apologize, I was very angry at the time, anyways, I don't want to throw the ball back and forth what's important is to come to a closure and end this whole thing."* [Case1 Adult female offender Stage1]

The utterance is ambivalent with one constructive (apologizing) and four destructive elements including giving excuse or mitigating circumstance twice (sudden impulse and anger), minimizing the importance or consequence of crime (fuss), blaming (referring to victims' also throwing the ball of accusation at the offender).

Offender's concluding statement in Stage 3 (Case 1).

> *"I just would like to say to everybody that I have said so far that I really reg…so I'm sor…I did not know this so I did not, I did not know this. To come back to your earlier question Ildikó, yes, my sister had told me back then not to do this, so I really am sorry, and I would eventually undo it if I could as I told this to the police back then as well, so I would do anything to, so I really am not a criminal type, my brother is a police officer, my daughter studies law, so, so, well, as we said, we did not talk to each other and I didn't know you guys, especially I did not want to hurt you, I don't know, I really don't know… I'm sorry, that's all I can say, nothing else. I also have memories so I know… now I know. If I had known I would have left it* (the car) *there, if it had been for me, it could have been there up until this day if the two of us would have communicated and not a third party would have intermediated back and forth. That's all I can say."* [Case1 Adult female offender Stage3]

This utterance is also ambivalent with four destructive and four constructive elements (ripped words were not coded). It included giving excuses or mitigating circumstances three times (indicating lack of information and communication as reasons) and

scapegoating (blaming third party). Constructive expressions included showing remorse as an empowerment message (saying sorry twice) and empathy as acceptance messages twice. These elements could indeed be an indicator of positive change. However, if we look at the content, destructive elements are still solid parts of the message indicating that responsibility taking has not truly taken place and the offender does not own her actions and blames others for it.

The negativity bias in communication and impression formation (Baumeister et al., 2001) indicates that when an even number of positive and negative content is presented the effect of the negative content prevails. In this context, an even amount of responsibility taking and magnitude gap expressions would result in an overall impression of an offender who is not remorseful.

It is important to emphasize the multifactorial nature of non-compliance motivations (including internal and external forces) and that based on the results of the content analysis limited conclusions can be drawn in relation to success predictions.

In Case 2 the material harm that had been caused by the theft had been repaied prior to the session, therefore the agreement was about the statement of the apology offered by the offender and accepted by the victims. The session was focused on understanding what happened, sharing personal consequences and coming to a closure.

4.5 Discussion of Research 2

In sum, it can be concluded that most data are in line with the model in terms of the assumed source of the message. The frequency of the various category manifestation allows us to formulate an overall impression about participants' activity and about the session in general. Despite the unbalanced ratio of conflict roles in both cases, offenders showed much more activity on the examined dimensions.

It is important to note that in both cases the communication of needs is numerous. Magnitude gap expressions show a different pattern in the two cases regarding quantity and message source. From the recorded material the imbalance is better understood. In both cases victims came in with a large portion of grief and sadness and the majority of their speech acts focused on sharing their own hardships and on what they had to face due to the criminal act. In other words, large part of victims' communication focused on themselves without explicitely expressing needs. This explains the low frequency of victims' expressions on the examined dimensions.

In case of the adult offender, the high frequency could be interpreted as an indicator of tension and instability in her position. There is indication of an impaired sense of public moral image (4) and numerous magnitude gap expressions (14) while some responsibility taking (7) is also present. In case of the juvenile offender, responsibility taking (8) and the need to restore her public moral image (7) are equally present.

4.5.1 Inconsistent data: power needs and power messages

As an untheorized result, four examples were identified in Case 1, where the offender described herself as being powerless and incompetent in relation to the amends asking for help and empowerment multiple times. In this case the offender verbalizes her intention together with the lack of competence to make up for the wrongdoing. This type of communication can be understood as complementing victims' need for power or as a possible cue for competitive victimhood. As the session goes on, there are more instances where the offender acts as if she was also a victim of this situation and explicitly demonstrates competitive victimhood later on. Although several responsibility taking expressions were identified from the part of the offenders, no cues for power restorative

messages were found. This can of course be explained by the small number of cases reviewed but further reflection on this result is provided in the discussion.

4.5.2 Inconsistent data: messages of acceptance

Messages of acceptance were postulated to be delivered by victims to offenders, four examples altogether were found where offenders have also conveyed messages of acceptance to victims. Three expressions of the four was conveyed by the offender in Case 1 where the prior relationship between the parties were fairly irrelevant.

In an intergroup laboratory setting, Shnabel et al. (2009) concluded that any type of positive message coming from the adversary enhanced the willingness to reconcile. They argue that it is because any positive gesture made by the other party is relatively unexpected, therefore has a positive value. In reference to the relationship between the effects of power and acceptance messages, the model's authors state that based on their statistical results "there is an unavoidable partial overlap rather than equivalence in the effects of these two independent variables (…) This suggests that our manipulations are better seen as emphasizing empowerment or acceptance rather than as excluding one or the other." (Shnabel and Nadler, 2008, 126-127). In addition, trauma literature also shows that traumatized victims' self-esteem and positive self-image are also impaired (Herman, 1992).

4.5.3 Control needs, empowerment messages and ecological validity

A clinical aspect in relation to control needs is also included as an extension of the discussion in relation to Case 2, where the juvenile offender had a clinical diagnosis of a mental illness. Her mental illness could not only be related to her transgressions (lying and committing a series of thefts) but it also had a significant impact on the dynamics of the session by the inability to express emotions, for instance. Mental illnesses may play a role in certain transgressions, therefore it makes sense to bring this phenomena into the realm of investigation. Interestingly, from a clinical psychology point of view, series of thefts committed by one person within a given community can be explained as a non-adaptive way to exercise control and power in the community[19]. In Case 2, it was

[19] Discussions with Hantos Ágnes clinical supervisor, psychotherapist at clinical supervision and case analyses sessions for psychologists working in social care in October 2009.

emphasized multiple times, that the offender did not steal because she was in need, so this case can be understood as the juvenile offender's increased need for attention and for controlling the environment.

That also raises the question of permeability of victim and offender roles, as the criminal act may be an indicator of a non-adaptive response to previous victimization. Aggressive behaviour, especially in juvenile cases, is also a typical type of offence where roles are easily interchangeable. The juvenile who enters the justice system with an offender label, oftentimes turns out to be a subject of severe prior victimization. Paradoxically, it therefore becomes crucial to pay attention not to re-victimize the *perpetrator*, especially in case of juvenile offenders.

The case in this study showed a great example of how an expert, in this case a psychologist, could be of use in favour of such process. She served as a buffer to satisfy victims' needs by explaining the whys (giving general information about the mechanisms in this illness) and to satisfy offender's needs (showing that the offender is not evil and because of the illness she is still a morally acceptable and likeable character, but at the same time, not releasing, in fact, encouraging her to take responsibility.) These communicational activities are in line with the postulates of the Needs-Based Model, as asking and understanding "whys" can help victims' to restore their sense of control.

In the theoretical model (Shnabel and Nadler, 2008), empowerment messages are conceptualized in two ways. One is related to responsibility taking that helps restoring the symbolic debt the offender created by the transgression by acknowledging unjust, taking responsibility, showing remorse, guilt, shame and asking for apology. The other is related to restoring victims' impaired sense of power by the offender's acknowledgement of victims' power, status or superiority, their rights to control their life and future, by praising their abilities or by making them feel strong or proud. While many verbal examples of the first type could be identified in the two sessions, no examples of the latter one were detected. This, of course, can easily be explained by the small number of cases that have been reviewed in this study. Because of the nature of power needs, it is nonetheless important to reflect further upon this result. Both the theoretical model and trauma literature acknowledge victims' impaired sense of control and power (Herman, 1992) as something happened against their will destroying their sense of self-determination and their belief in their ability to control their environment and their life. This type of impairment however is very hard to verbalize. By nature, power is often

demonstrated non-verbally (by gestures or by the large number of supporters a participant would bring to a session, for instance) while control is rather exercised through actions or decisions. Restorative sessions give a number of opportunities for victims to restore their sense of control and power (eg. Hagemann, 2012; Z. Papp, 2017) in practice.

4.5.4 Limitations

This work wished to contribute to put theory into practice by developing a categorization scheme by which the Needs-Based Model and the magnitude gap concept can be examined in real life conflict management contexts. The study however has some limitations. It only contains two cases and its findings have more of an illustrative value. The nature of the data (acoustic only) can also be considered as an additional constraint, as visual non-verbal signals could also have contributed to a more complex analysis, as they can have significant relevance in conveying empowerment and acceptance messages. It can also be considered a limitation that only communication messages of victims and offenders were analysed while there were a number of other participants (relatives, facilitators, experts) present. Analysing their communication, as a further step in research, would be necessary in order to understand how they contribute to satisfying needs and to better understand the dynamics of restorative sessions. Authors of the Needs-Based Model further strengthen the importance of revealing mechanisms "in which the process described by the Needs-Based Model may be set in motion" (Shnabel and Nadler, 2010 p. 22.) For these reasons, continuation of this research on larger samples may create a deeper understanding of ecologically valid manifestations of the aforementioned needs and communication messages and their effects, as well as of the real-life nature of conflict reparation mechanisms, serving both practice and academia.

5 General Discussion: Conclusions and future directions

This work aimed to contribute to the investigation of the relevance of the Big Two dimensions in interpersonal conflict. I urge further and systematic elaboration of the relevance of the Big Two dimensions in social (direct and structural, interpersonal and intergroup) conflict settings. Abele and Wojciszke (2019) greeted the rediscovery of the role of content in psychology brought on by the fruitful new research field of the Big Two.When suggesting new directions I propose a shift from the content focus in a number of ways.

5.1.1 Moving further from verbal to non-verbal forms of empowerment

An important tendency appears in the evolution of the investigation of social conflicts inspired by the needs-based model. As Bruneau and Saxe (2012) and Aydin and colleagues (2019) suggest the impaired assymetric needs arising from a conflict or structural inequality can be translated into motivations regarding interactional goals, self-presentation and actual behaviours. In this line of research the focus is shifted from examining verbal manifestations of impaired needs and of restorative messages toward actual or hypothesized behavioural consequences. Aidyen and colleagues' (2019) differentiate between identity definition (defining oneself with particular characteristics and descriptive labels) and identity enactment that involves the behavioural acting out aspects of one's identity. In their research, manifestations of identity impairements were operationalized in form of self-presentations as agentic (assertive and confident) or as communal (warm and trustworthy) and interaction goals with the adversarial partner were measured.

On another note, Bruneau and Saxe (2012) proposed and evidenced that instead of restorative (empowerment and acceptance) verbal messages, perspective taking and perspective giving behaviours are also efficient in increasing reconciliatory attitudes in intergroup conflict. In this setting perspective taking meant 'listening to' the disadvantaged group member by the advantaged group member. Perspective giving was equivalent with 'talking', in other words, sharing the stories of hardships that have been related to the disadvantaged goup identity. The authors emphasized the critical role of being heard for low-status members and the educational and learning outcome for the high-status members. This research draws attention on the fact that behaviours related to dialogue as opposed to concrete verbal messages also have the power to restore impaired

identity dimensions. I add that behavioural aspects of restoration may have more importance in case of agency reparation where verbalizing needs and empowerment is more challenging than in the case of morality.
Importantly, both studies emphasize implications of the findings stating that traditional dialogue programs focusing on building empathy benefit only the advantaged (offender) group members. When designing interventions it is essential to address victims or disadvantaged group members' agentic needs as well.

Along these lines, Herman (1992), a prominent figure of the clinical literature on trauma, argues that agency restoration can also be facilitated by constructing a coherent narrative of the adverse event(s) that can be integrated into the survivor's life narrative. Narrative construction and cognitive re-structuration of the trauma have been reported to be associated with better health functions (eg. Pennebaker, 2000) and mental health (Herman, 1992) including a decrease in PTSD (Angel, 2005). For this reason, I argue that investigating the mechanisms of narrative construction and co-construction and their relationship with the narrator's sense of agency is an important task.

The (clinical) literature focusing on victims, the best field practices (by professionals who come in contact with victims and by restorative practitioners) as well as implications of Research 2 in this dissertation point out the importance of the multifaceted nature of agency manifestations. I further urge to include the knowledge on verbal and non-verbal forms of empowerment as well as their destructive manifestations (eg. leading to secondary victimization) to be included in the training and practice of each profession, such as medical, legal and law enforcement personnel.

5.1.2 Moving further from content to formal measurement

Furthermore, I propose that applying a new methodological approach in the measurement of agency and communion in interactions may also be fruitful. Besides content analysis, objective linguistic features of interacting participants should be investigated. Eszter Berán and Zsolt Unoka (2015, 2016) for example successfully measured linguistic cues of agency in client – psychotherapist interactions. Based on the development of a coding manual of different aspects of narrative perspective by Berán (2009) the authors were

able to successfully detect improvement in patients' agency in the course of the therapy through their language usage. What is more, using a discourse-based approach, they were able to show how the therapists' use of narrative perspective shifts facilitated clients' agency. The authors argue that one of the benefits of this approach is that it is completely objective as it relies on coding and counting formal aspects of language usage as opposed to the more subjective content analysis. There has not yet been formal linguistic markers developed as indicators of communion but this domain is also much easier to verbalize. In conclusion, I believe that investigating victims' and offenders' linguistic manifestations of agency as well as the mediators' interventions (by offereing various narrative perspectives) in conflict reconciliation processes is a promising new avenue.

5.1.3 Implications for restorative and conflict-management practices

Thanks to Zubek and colleagues' (1992) comprehensive investigation, empiric evidence also confirms the long emphasized notion by restorative practitioners whereas in conflict management intangible issues and psychological needs are important to address. Without that the reconciliation and the healing process can be compromised. Identifying and managing such underlying issues however is difficult without proper training (note also the extremely low .28 interrater reliablility in detecting intangible issues in their study that the authors could improve with training).

Although the theoretical frameworks are always simplyfing the complexity of real-life there are some ways participants could benefit from them. It is important to stress however that by describing role-specific needs and message contents as ways to promote reconciliation, the creation of the image of an "ideal victim" or "ideal offender" should be avoided. In real life contexts, there are many different ways of coping and coming to closure (Herman, 1992). Facilitators therefore should avoid having expectations from victims or offenders regarding their behaviour or the outcome.

By knowing the theoretical concepts, practitioners can have a more "sensitive ear" for participants' needs during the preparation phase and in the session. In the preparation phase, practitioners may actively address participants' needs in one-on-one discussions and may feel better equipped in determining if the participants are ready for the session. Practitioners can pay more careful attention to respect victims' control needs also in the way of organizing the session. They can have a better understanding of how the session

is going by recognizing cues for constructive and destructive communication with more awareness. Shnabel et al. (2014) found that messages of acceptance coming from a third party may hinder trust thus inhibiting reconciliation. This empirical evidence further strengthens the importance of the restorative principle whereas facilitators should maintain their impartial and neutral behaviour.

Most importantly, several authors (Aydin et al., 2019; Bruneau and Saxe, 2012) evidenced that interventions designed to foster reconciliation or build relationships that only focus on empathy building will be inefficient for members of the disempowered groups. Contact- and dialogue- based interventions have to provide a design where victims' agency-related needs can also be met in addition to traditional empathy building.

The restorative approach and methodology is an important and invaluable complementary of the justice system contributing to stable and long-lasting solutions, prevention of reoffence and a contribution to participants' better mental health. I urge to sustain the close and fruitful cooperation between researchers and field practitoners in the realm of conflict management.

6 Reference List

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7 Appendix

7.1 Appendix 1. A. Measures of Research 1 translated to English

Questionnaire 1: Team Worksheet

TEAM WORKSHEET

OWN TEAM'S NAME: _____

OPPONENT TEAM'S NAME: _____

TEAM MEMBERS' INDIVIDUAL ID

1. _____
2. _____
3. _____

Please take note of your individual ID you will need it later on for the follow up questionnaire.

Level of acquiantance with opponent team members:
Please indicate the highest level of acquiantance by circling the answer!

1. never seen them before this course
2. seen them around but never talked to them
3. we attended some classes together, we chat sometimes
4. hang out outside school time
5. friends
6. we are roommates/dorm mates
7. significant other
8. relative of mine
9. other:

RESULT MATRIX

Y Y	**Y X**
+5; +5	-10 ; +10
+10; -10	-5; -5
X Y	**X X**

BOARD OF RESULTS

ROUND	OWN TEAM'S BET (X/Y)	OPP. TEAM'S BET (X/Y)	OWN RESULT (SUM)	OPPONENT TEAM'S RESULT (SUM)
1.				
2.				
3.				

You have the chance to negotiate with one representative of the other team. Make decisions about the following:

- Would you negotiate with the other team? YES / NO

- If NOT, explain why: ……
- If YES, what solution would you propose: ……
- Do you wish to follow through if an agreement is reached?
  YES / NO / MIXED (the team members have different opinions)

Who represents your team in the negotiation? (individual ID): ……

AFTER NEGOTIATION:

- Have you reached an agreement? YES / NO

- If YES, what was it about? ……

ROUND	OWN TEAM'S BET (X/Y)	OPP. TEAM'S BET (X/Y)	OWN RESULT (SUM)	OPPONENT TEAM'S RESULT (SUM)
4.				

- Have the teams follow through the agreement, if there was one? YES / NO

- If NOT, explain what happened! ……

5.				

You have the chance to negotiate with one representative of the other team. Make decisions about the following:

- Would you negotiate with the other team? YES / NO

- If NOT, explain why: ……

- If YES, what solution would you propose: ……

- Do you wish to follow through if an agreement is reached?
  YES / NO / MIXED (the team members have different opinions)

Who represents your team in the negotiation? (individual ID): ……

AFTER NEGOTIATION:

- Have you reached an agreement? YES / NO

- If YES, what was it about? ……

6.				
FINAL RESULT:				

Measure 2: Individual Opening Questionnaire

Questionnaire

Age:
Gender:

TEAM NAME: _____

INDIVIDUAL ID: _____

1. **What was your team's result? (underscore the correct answer)**
   WINNER / LOSER / POSITIVE DRAW / NEGATIVE DRAW

2. **To what extent do you feel the following emotions?**

	Absolutely not			**Medium**			**Absolutely yes**
Satisfaction	1	2	3	4	5	6	7
Happiness	1	2	3	4	5	6	7
Sadness	1	2	3	4	5	6	7
Disappointment	1	2	3	4	5	6	7
Triumphant	1	2	3	4	5	6	7
Pride	1	2	3	4	5	6	7
Self-confidence	1	2	3	4	5	6	7
Helplessness	1	2	3	4	5	6	7
Schadenfreude	1	2	3	4	5	6	7
Humiliation	1	2	3	4	5	6	7
Shame	1	2	3	4	5	6	7
Anxiety	1	2	3	4	5	6	7
Self-blame	1	2	3	4	5	6	7
Other: …….	1	2	3	4	5	6	7

3. **To what extent do you feel the following emotions towards the other team?**

	Absolutely not			**Medium**			**Absolutely yes**
Anger	1	2	3	4	5	6	7
Caution	1	2	3	4	5	6	7
Resentment	1	2	3	4	5	6	7
Envy	1	2	3	4	5	6	7
Trust	1	2	3	4	5	6	7
Respect	1	2	3	4	5	6	7
Intimidation	1	2	3	4	5	6	7
Appreciation	1	2	3	4	5	6	7
Vengefulness	1	2	3	4	5	6	7
Jealousy	1	2	3	4	5	6	7
Pity	1	2	3	4	5	6	7
Guilt	1	2	3	4	5	6	7
Compassion	1	2	3	4	5	6	7
Bad consciousness	1	2	3	4	5	6	7
Contempt	1	2	3	4	5	6	7
Other:……..	1	2	3	4	5	6	7

4. To what extent would you like to work together with the other team on other tasks?

Absolutely not *Absolutely*

1	2	3	4	5	6	7

5. To what extent did you differ in your opinion with your team mate(s) during the exercise?

Differed extremely *They were totally similar*

1	2	3	4	5	6	7

6. To what extent are you satisfied with your team's result? Mennyire elégedett a saját csapata végeredményével?

Absolutely not *Absolutely*

1	2	3	4	5	6	7

7. To what extent do you feel the final results were fair?

Absolutely not *Absolutely*

1	2	3	4	5	6	7

8. To what extent do you agree with the following statements?

Our result in this exercise turned out to be this way because …

a) it mostly depended on us

Absolutely not *Absolutely*

1	2	3	4	5	6	7

b) it mostly depended on the other team

Absolutely not *Absolutely*

1	2	3	4	5	6	7

c) the nature of the task influence it mostly

Absolutely not *Absolutely*

1	2	3	4	5	6	7

d) Other: ……

9. Has harm been done during the exercise? (Circle the answer that reflects your opinion)

1. Yes, we have been harmed (eg. the other team have not followed through on our agreement).
2. Yes, we have caused harm (eg. we have not followed through on the agreement)
3. Yes, we have both been harmed and caused harm.
4. No harm has been done.

In case you answered A, B or C please answer:

10. Which of the following would be most important to you from the other team? Choose the answer that is closest to your opinion.

a) If they acknowled that we have been a worthy opponent in this exercise.
b) If they acknowledged that they did not behave in a fair way with us.
c) If our relationship / friendship would be good again.

11. It woud be important for me if …

a) they apologized: YES / NO
b) if they forgave us: YES / No

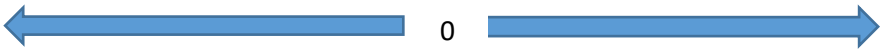
12. How would you continue this exercise? Circle the answer that is closest to your opinion.

1. I would like to play a new round and take revenge
2. I would never want to participate in this exercise with them again.
3. I would like to talk it over with them.
4. I would like to talk it over with them in the presence of a neutral third party who would lead the conversation.
5. I would like to continue with them since we had a good cooperation.

13. If a similar situation happened in real life what would be your reaction? Circle the closest answer to your opinions.

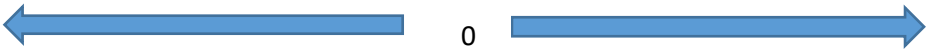
1. I shall take revenge
2. I shall never communicate with the other, they should be avoided
3. Talk it over
4. Talk it over with a help of a neutral third party who leads the conversation

14. <u>Place yourself on the bipolar scale: How did you perceive yourself during the exercise? Circle only one number per row!</u>



	Absolutely true	True	Slightly true	Neutral / I don't know	Slightly true	True	Absolutely true	
Warm	3	2	1	**0**	1	2	3	Cold
Naive	3	2	1	**0**	1	2	3	Smart
Honest	3	2	1	**0**	1	2	3	Deceptive
Strong	3	2	1	**0**	1	2	3	Weak
In control	3	2	1	**0**	1	2	3	Lacking control
Cooperative	3	2	1	**0**	1	2	3	Competitive

15. <u>Place the other team on the bipolar scale: How did you perceive them during the exercise? Circle only one number per row!</u>



	Absolutely true	True	Slightly true	Neutral / I don't know	Slightly true	True	Absolutely true	
Warm	3	2	1	**0**	1	2	3	Cold
Naive	3	2	1	**0**	1	2	3	Smart
Honest	3	2	1	**0**	1	2	3	Deceptive
Weak	3	2	1	**0**	1	2	3	Strong
In control	3	2	1	**0**	1	2	3	Lacking control
Cooperative	3	2	1	**0**	1	2	3	Competitive

16. To what extent do you agree with the following statements?

	Absolutely not						*Totally*
1. I would like to have greater influence on the outcome of my team.	1	2	3	4	5	6	7
2. I would like the other team to acknowledge that we have been a worthy opponent in this task.	1	2	3	4	5	6	7
3. I would like to share our motives behind our actions with the other team.	1	2	3	4	5	6	7
4. I would not like the other team to think of me as weak.	1	2	3	4	5	6	7
5. I would like the other team to acknowledge our competence.	1	2	3	4	5	6	7
6. I would like the other team to know that our actions were not against them personally.	1	2	3	4	5	6	7
7. I would like the other team to know that I am an honest and sincere person.	1	2	3	4	5	6	7
8. I would not like to come across as intimidating for the other team.	1	2	3	4	5	6	7
9. I would like the other team to know that I am a really likable person.	1	2	3	4	5	6	7
10. I feel as a victim who could not do too much in this exercise.	1	2	3	4	5	6	7

3.Team Feedback Questionnaire

TEAM FEEDBACK SHEET

Please signal the team names

OWN TEAM NAME: OTHER TEAM'S NAME:

_____------→ _____

FILL IN TOGETHER WITH YOUR TEAM MATE(S)

before handing it to the other team. Circle only one number per statement.

	Absolutey not true						*Absolutely true*
1.We think that members of the other team are friendly and likeable persons.	1	2	3	4	5	6	7
2. We understand why they acted the way they did during the exercise.	1	2	3	4	5	6	7
3. We think that members of the other team are fundamentally honest and sincere persons.	1	2	3	4	5	6	7
4. We acknowledge that the other team has been a worthy opponent in this exercise.	1	2	3	4	5	6	7
5.We did not intend to hurt the members of the other team during the exercise.	1	2	3	4	5	6	7
6. We acknowledge that we have not always been honest during the exercise.	1	2	3	4	5	6	7
7.We would like to apologize from the members of the other team.	1	2	3	4	5	6	7

4. Individual Closing Questionnaire

CLOSING QUESTIONNAIRE – TO BE FILLED IN INDIVIDUALLY

OWN TEAM: _____

INDIVIDUAL ID: _____

Has your team received feedback from the other team? YES / NO

IF NOT: Has there been a reason why?
……

1. **To what extent do you currently feel the following emotions?**

	Absolutely not			**Medium**			**Absolutely yes**
Satisfaction	1	2	3	4	5	6	7
Happiness	1	2	3	4	5	6	7
Sadness	1	2	3	4	5	6	7
Disappointment	1	2	3	4	5	6	7
Triumphant	1	2	3	4	5	6	7
Pride	1	2	3	4	5	6	7
Self-confidence	1	2	3	4	5	6	7
Helplessness	1	2	3	4	5	6	7
Schadenfreude	1	2	3	4	5	6	7
Humiliation	1	2	3	4	5	6	7
Shame	1	2	3	4	5	6	7
Anxiety	1	2	3	4	5	6	7
Self-blame	1	2	3	4	5	6	7
Other: …….	1	2	3	4	5	6	7

- ***Please continue on the final page*** -

2. **To what extent do you currently feel the following emotions towards the other team?**

	Absolutely not			**Medium**			**Absolutely yes**
Anger	1	2	3	4	5	6	7
Caution	1	2	3	4	5	6	7
Resentment	1	2	3	4	5	6	7
Envy	1	2	3	4	5	6	7
Trust	1	2	3	4	5	6	7
Respect	1	2	3	4	5	6	7
Intimidation	1	2	3	4	5	6	7
Appreciation	1	2	3	4	5	6	7
Vengefulness	1	2	3	4	5	6	7
Jealousy	1	2	3	4	5	6	7
Pity	1	2	3	4	5	6	7
Guilt	1	2	3	4	5	6	7
Compassion	1	2	3	4	5	6	7
Bad consciousness	1	2	3	4	5	6	7
Contempt	1	2	3	4	5	6	7
Other:……	1	2	3	4	5	6	7

3. **To what extent would you like to work together with the other team on other tasks?**

Absolutely not *Absolutely*

1	2	3	4	5	6	7

-Thank you for your cooperation!-

5.Follow- up questionnaire

FIRO-B Interpersonal Relationship Orientation – Behavior (Schutz, 1958)

This questionnaire is designed to explore the typical ways you interact with people. There are, of course, no right or wrong answers; each person has his own ways of behaving. Sometimes people are tempted to answer questions like these in terms of what they think a person should do. This is not what is wanted here. We would like to know how you actually behave. Some items may seem similar to others, however, each item is different so please answer each one without regard to the others, there is no time limit, but do not debate long over any items. For each statement below, decide which of the following answers best apply to you. Place the number in the box at the right of the statement. Please be honest as you can.

1 - Usually 2 - Often 3 - Sometimes 4 - Occasionally 5 - Rarely 6 - Never

1. I try to be with people	1	2	3	4	5	6
2. I let other people decide what to do	1	2	3	4	5	6
3. I join social groups	1	2	3	4	5	6
4. I try to have close relationships	1	2	3	4	5	6
5. I tend to join social organisations when I have the opportunity	1	2	3	4	5	6
6. I let other people strongly influence my actions	1	2	3	4	5	6
7. I try to be included in informal social activities	1	2	3	4	5	6
8. I try to have close personal relationships with people	1	2	3	4	5	6
9. I try to include other people in my plans	1	2	3	4	5	6
10.I let other people control my actions	1	2	3	4	5	6
11. I try to have people around me	1	2	3	4	5	6
12. I try to get close and personal with people	1	2	3	4	5	6
13. when people are doing things together I tend to join them	1	2	3	4	5	6
14. I am easily led by people	1	2	3	4	5	6
15. I try to avoid being alone	1	2	3	4	5	6
16. I try to participate in group activities	1	2	3	4	5	6

1. Most people 2. Many people 3. Some people 4. A few people 5. One or two people 6. Nobody

17. I try to be friendly to people						
18. I let other people decide what to do						
19. My personal relations with people are cool and distant						
20. I let other people take charge of things						
21. I try to have close relationships with people						
22. I let other people strongly influence my actions						

23. I try to get close and personal with people						
24. I let other people control my actions.						
25. I act cool and distant with people						
26. I am easily let by people						
27. I try to have close personal relationships with people.						
28. I like people to invite me to things						
29. I like people to act close and personal with me.						
30. I try to influence strongly other people's actions						
31. I like people to invite me to join in their activities						
32. I like people to act close toward me.						
33. I try to take charge of things when I am with people						
34. I like people to include me in their activities						
35. I like people to act cool and distant toward me						
36. I try to have other people do things the way I want them done						
37. I like people to ask me to participate in their discussions						
38. I like people to act friendly toward me						
39. I like people to invite me to participate in their activities						
40. I like people to act distant toward me						

1 - Usually 2 - Often 3 - Sometimes 4 - Occasionally 5 - Rarely 6 - Never

41. I try to be the dominant person when I am with						
42. I like people to invite me to things						
43. I like people to act close towards me						
44. I try to have other people do things I want done						
45. I like people to invite me to join their activities						
46. I like people to act cool and distant towards me						
47. I try to influence strongly other people's actions						
48. I like people to include me in their activities						
49. I like people to act close and personal with me						
50 I try to take charge of things when I'm with people						
51. I like people to invite me to participate in their activities.						

52. I like people to act distant toward me						
53. I try to have other people do things the way I want them done.						
54. I take charge of things when I'm with people						

FIRO – B Scoring Key

Expressed inclusion

Items	Key	Score 0/1
1	1,2,3	_____
2	1,2,3,4	_____
5	1,2,3,4	_____
7	1,2,3	_____
9	1,2	_____
11	1,2	_____
13	1,2	_____
15	1	_____
16	1	_____
Total		

Wanted inclusion

Items	Key	Score 0/1
28	1,2	_____
31	1,2	_____
34	1,2	_____
42	1,2	_____
45	1,2	_____
37	1	_____
39	1	_____
48	1,2	_____
51	1,2	_____
Total		

Expressed Control

Items	Key	Score 0/1
30	1.2.3	_____
33	1,2,3	_____
41	1,2,3,4	_____
44	1,2,3	_____
47	1,2,3	_____
36	1,2	_____
50	1,2	_____
53	1,2	_____
54	1,2	_____
Total		

Wanted Control

Items	Key	Score 0/1
2	1.2,3,4	_____
6	1,2,3,4	_____
18	1,2,3	_____
20	1,2,3	_____
22	1,2,3,4	_____
10	1,2,3	_____
14	1,2,3	_____
24	1,2,3	_____
26	1,2,3	_____
Total		

Expressed affection

Items	Key	Score 0/1
4	1,2	_____
8	1,2	_____
17	1,2	_____
19	4,5,6	_____
21	1,2	_____
12	1	_____
23	1,2	_____
25	4,5,6	_____
27	1,2	_____
Total		

Wanted affection

Items	Key	Score 0/1
29	1,2	_____
32	1,2	_____
43	1	_____
46	5,6	_____
35	5,6	_____
39	1,2	_____
40	5,6	_____
49	1,2	_____
52	5,6	_____
Total		

Source: http://excelassociates.in/Personality_Tests/FIRO-B.pdf

7.2 Appendix 1. B. Measures of Research 1 in Hungarian

1.mérőeszköz: Csapatlap

CSAPATLAP

SAJÁT CSAPATNÉV: **ELLENFÉL CSAPAT NEVE:**

_____ _____

Saját CSAPATTAGOK
EGYÉNI AZONOSÍTÓI

1. _____
2._____
3._____

Az egyéni azonosítóját kérjük, jegyezze fel a későbbiekre a füzetedbe, telefonba! Ez szükséges az online utánkövető kérdőív kitöltéséhez.

Ismerősségi szint az ellenfél csapattagjaival:
Csapatonként 1 választ karikázzon a legmagasabb ismerősségi fokot jelölve!

10. most látjuk őket először
11. egy évfolyamra járunk, látásból ismerjük őket
12. évfolyamtárs/csoporttárs, néha beszélgetünk
13. szoktunk iskolaidőn kívül is időt tölteni együtt
14. barátok vagyunk
15. szobatársak vagyunk (kollégium, albérlet, stb.)
16. romantikus kapcsolatban vagyunk/voltunk korábban
17. rokonok vagyunk (testvér, stb.)
18. egyéb:

EREDMÉNYTÁBLA

Y Y	**Y X**
+5; +5	-10 ; +10
+10; -10	-5; -5
X Y	**X X**

EREDMÉNYTÁBLA

FORDULÓ	**SAJÁT TÉT (X/Y)**	**ELLENFÉL CSAPAT TÉTJE (X/Y)**	**SAJÁT NYEREMÉNY ÖSSZEG**	**ELLENFÉL CSAPAT NYEREMÉNY ÖSSZEGE**
1.				
2.				
3.				

Lehetőségük van tárgyalni a másik csapat egy képviselőjével. Hozzanak döntést az alábbiakról:

- Tárgyalnának-e a másik csapattal? IGEN / NEM
- Ha NEM, fogalmazzák meg röviden miért?
- Ha IGEN, milyen megoldást javasolnának?
- Szándékukban áll-e betartani a megállapodást?
  IGEN / NEM / VEGYES (a csapattagok eltérő véleményen vannak)

Ki képviseli a csapatukat a tárgyaláson? (egyéni azonosító):……

TÁRGYALÁS UTÁN:

- Született-e megállapodás a felek között a tárgyaláson? IGEN / NEM
- Ha IGEN, mi volt az?

FORDULÓ	SAJÁT TÉT (X/Y)	ELLENFÉL CSAPAT TÉTJE (X/Y)	SAJÁT NYEREMÉNY ÖSSZEG	ELLENFÉL CSAPAT NYEREMÉNY ÖSSZEGE
4.				

- Betartották-e a csapatok az ígéretüket? IGEN / NEM (ha volt megállapodás)
- Ha NEM, mi történt?

5.				

Lehetőségük van még egyszer tárgyalni a másik csapat egy képviselőjével. Hozzanak döntést az alábbiakról:

- Tárgyalnának-e a másik csapattal? IGEN / NEM
- Ha NEM, fogalmazzák meg röviden miért?
- Ha IGEN, milyen megoldást javasolnának?
- Szándékukban áll-e betartani a megállapodást?
  IGEN / NEM / VEGYES (azaz a csapattagok eltérő véleményen vannak)

Ki képviseli a csapatukat a tárgyaláson? (egyéni azonosító):……

TÁRGYALÁS UTÁN:

- Született-e megállapodás a felek között a tárgyaláson? IGEN / NEM
- Ha IGEN, mi volt az?

6.				
VÉGÖSSZEG:				

2.Mérőeszköz: Egyéni nyitókérdőív

Kérdőív

Életkor:
Nem:

CSAPATNÉV: _____

EGYÉNI AZONOSÍTÓ: _____

1. **Milyen eredménnyel zárta a csapata a gyakorlatot? (Aláhúzással jelölje)**
   NYERTES / VESZTES / DÖNTETLEN POZITÍV / DÖNTETLEN NEGATÍV

2. **Mennyire jellemzőek Önre az alábbi érzések?**

	Egyáltalán nem jellemző	**Nem jellemző**	**Csekély mértékben**	**Közepes mértékben**	**Jellemző**	**Nagyon jellemző**	**Teljes mértékben**
Elégedettség	1	2	3	4	5	6	7
Boldogság	1	2	3	4	5	6	7
Szomorúság	1	2	3	4	5	6	7
Csalódottság	1	2	3	4	5	6	7
Diadalittasság	1	2	3	4	5	6	7
Büszkeség	1	2	3	4	5	6	7
Magabiztosság	1	2	3	4	5	6	7
Tehetetlenség	1	2	3	4	5	6	7
Káröröm	1	2	3	4	5	6	7
Megalázottság	1	2	3	4	5	6	7
Szégyen	1	2	3	4	5	6	7
Szorongás	1	2	3	4	5	6	7
Önvád	1	2	3	4	5	6	7
Egyéb: ……	1	2	3	4	5	6	7

3. **Mennyire jellemzőek az alábbi érzések a <u>MÁSIK CSAPATTAL KAPCSOLATBAN?</u>**

	Egyáltalán nem jellemző	**Nem jellemző**	**Csekély mértékben**	**Közepes mértékben**	**Jellemző**	**Nagyon jellemző**	**Teljes mértékben**
Düh	1	2	3	4	5	6	7
Óvatosság	1	2	3	4	5	6	7
Sértettség	1	2	3	4	5	6	7
Irigység	1	2	3	4	5	6	7
Bizalom	1	2	3	4	5	6	7
Tisztelet	1	2	3	4	5	6	7
Fenyegetettség	1	2	3	4	5	6	7
Elismerés	1	2	3	4	5	6	7
Bosszúvágy	1	2	3	4	5	6	7
Féltékenység	1	2	3	4	5	6	7
Sajnálat	1	2	3	4	5	6	7
Bűntudat	1	2	3	4	5	6	7
Együttérzés	1	2	3	4	5	6	7
Lelkiismeret-furdalás	1	2	3	4	5	6	7
Megvetés	1	2	3	4	5	6	7
Egyéb:…….	1	2	3	4	5	6	7

4. Mennyire szívesen dolgozna együtt az ellenfél csapatával más feladatban?

Egyáltalán nem *Nagyon szívesen*

1	2	3	4	5	6	7

5. Mennyire voltak eltérő véleményen a saját csapattársa(i)val a feladat során?

Nagyon eltérő véleményen voltunk *Teljesen ugyanúgy gondolkodtunk*

1	2	3	4	5	6	7

6. Mennyire elégedett a saját csapata végeredményével?

Egyáltalán nem *Teljesen mértékben*

1	2	3	4	5	6	7

7. Mennyire érzi igazságosnak a kialakult végeredményt?

Egyáltalán nem *Teljesen mértékben*

1	2	3	4	5	6	7

8. Mennyire igazak az alábbi állítások?

Ebben a feladatban a mi eredményünk azért EZ lett, mert ez döntően…

a) rajtunk múlt

Egyáltalán nem igaz *Teljesen igaz*

1	2	3	4	5	6	7

b) az ellenfél csapaton múlt

Egyáltalán nem igaz *Teljesen igaz*

1	2	3	4	5	6	7

c) a feladat jellege miatt alakultak így a dolgok

Egyáltalán nem igaz *Teljesen igaz*

1	2	3	4	5	6	7

d) Egyéb: ……

9. Történt-e SÉRÜLÉS / SÉRTÉS a feladat során? Karikázással jelölje!

1. Igen, minket ért sérelem (pl. nem tartotta be a másik csapat a megállapodást).
2. Igen, mi okoztunk sérülés (pl. nem tartottuk be a másik csapattal kötött megállapodást).
3. Igen, minket is ért sérelem és mi is okoztunk azt.
4. Nem történt ilyen.

<u>Ha TÖRTÉNT SÉRELEM….</u> (akkor töltse ki, ha *<u>IGEN</u>*-nel válaszolt az előző kérdésre)

10. Mi esne most jól leginkább a másik csapattól? Lehetőleg egy választ jelöljön!

a) Ha elismernék azt, hogy mi is jól játszottunk ebben a feladatban, méltó ellenfél voltunk.
b) Ha elismernék, hogy nem jártak el fair módon velünk.
c) Ha újra barátok lehetnénk / jó lenne a kapcsolat közöttünk.

11. Fontos lenne számomra, hogy ha…

a) bocsánatot kérnének: IGEN / NEM
b) megbocsátanának: IGEN / NEM

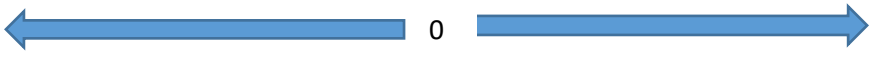
12. Ha tehetné, hogyan folytatná a gyakorlatot? Azt az egy választ jelölje meg, amelyik a legközelebb áll a véleményéhez!

1. Szeretnék velük egy új kört játszani és visszaadni, amit kaptunk
2. Soha többé nem akarok velük játszani ilyet
3. Szeretném megbeszélni ezt a helyzetet velük
4. Szeretném velük megbeszélni ezt a helyzetet úgy, hogy jelen van egy harmadik pártatlan fél is, aki vezeti a megbeszélést
5. Szeretném velük folytatni, olyan jó volt az együttműködés

13. Ha nem a feladat során, hanem a való életben történne hasonló, mi lenne a reakciója?

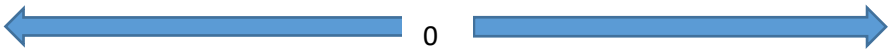
1. bosszút kellene állni
2. soha többet nem szóba állni a másikkal, távol maradni
3. megbeszélni, tisztázni kellene ezt a helyzetet
4. úgy megbeszélni ezt a helyzetet, hogy egy harmadik pártatlan fél vezeti az alkalmat

14. <u>Kétpólusú skálán</u> jellemezze <u>önmagát</u>: milyen volt a feladat során?
<u>Csak egy számot karikázzon egy</u> <u>sorban!</u>



	Nagyon igaz	Igaz	Kis mérték ben	Nem tudom/ Semleges	Kis mérték ben	Igaz	Nagyon igaz	
Rokonszenves	3	2	1	**0**	1	2	3	Ellenszenves
Naív	3	2	1	**0**	1	2	3	Agyafúrt
Becsületes	3	2	1	**0**	1	2	3	Megtévesztő
Erős	3	2	1	**0**	1	2	3	Gyenge
Irányító	3	2	1	**0**	1	2	3	Sodródó
Együttműködő	3	2	1	**0**	1	2	3	Versengő

15. <u>Kétpólusú skálán</u> jellemezze a másik csapatot: milyenek látta őket a játék során? <u>Egy számot karikázzon egy sorban!</u>



	Nagyon igaz	**Igaz**	**Kis mérték ben**	**Nem tudom/ Semleges**	**Kis mérték ben**	**Igaz**	**Nagyon igaz**	
Rokonszenves	3	2	1	**0**	1	2	3	Ellenszenves
Naív	3	2	1	**0**	1	2	3	Agyafúrt
Becsületes	3	2	1	**0**	1	2	3	Megtévesztő
Gyenge	3	2	1	**0**	1	2	3	Erős
Irányító	3	2	1	**0**	1	2	3	Sodródó
Együttműködő	3	2	1	**0**	1	2	3	Versengő

16. Mennyire ért egyet az alábbi állításokkal – válaszát karikázza!

	Egyáltalán nem igaz						*Teljesen igaz*
1. Szeretném, ha nagyobb befolyásom lehetne arra, hogy hogyan alakul a csapatunk végeredménye.	1	2	3	4	5	6	7
2. Szeretném, ha a másik csapat elismerné, hogy méltó vetélytársak voltunk ebben a feladatban.	1	2	3	4	5	6	7
3. Szeretném megosztani a másik csapattal azt, hogy mik voltak a cselekedeteink mozgatórugói a feladat során.	1	2	3	4	5	6	7
4. Szeretném elkerülni, hogy a másik csapat tagjai azt gondolják rólam, hogy gyenge vagyok.	1	2	3	4	5	6	7
5. Szeretném, ha a másik csapat tagjai elismernék a képességeinket.	1	2	3	4	5	6	7
6. Szeretném, ha a másik csapat tagjai tudnák, hogy nem személyesen ellenük irányultak a cselekedeteink.	1	2	3	4	5	6	7
7. Szeretném, ha a másik csapat tagjai tudnák, hogy én egy őszinte és becsületes ember vagyok.	1	2	3	4	5	6	7
8. Szeretném, ha a másik csapat tagjai nem tartanának fenyegetőnek engem.	1	2	3	4	5	6	7
9.Szeretném, ha a másik csapat tagjai tudnák, hogy igazán szerethető ember vagyok.	1	2	3	4	5	6	7
10.Áldozatnak érzem magam, aki nem tehetett túl sokat ebben a feladatban.	1	2	3	4	5	6	7

3.Csapatos visszajelző kérdőív

CSAPATOS VISSZAJELZÉS

Jelezzék, hogy melyik csapattól melyik csapatnak szól a visszajelzés:

SAJÁT CSAPATNÉV: MÁSIK CSAPAT NEVE:

_____------→ _____

A CSAPATTÁRSAIVAL KÖZÖSEN TÖLTSÉK KI

az alábbi visszajelző kérdőívet, amelyet majd átadnak a másik csapatnak.
Egy számot karikázzanak kérdésenként!

	Egyáltalán nem igaz						*Teljesen igaz*
1.Úgy gondoljuk, hogy a másik csapat tagjai barátságos és kedvelhető emberek.	1	2	3	4	5	6	7
2.Megértjük, hogy miért cselekedtek a feladat során úgy, ahogy.	1	2	3	4	5	6	7
3.Úgy gondoljuk, hogy a másik csapat tagjai alapvetően becsületes és őszinte emberek.	1	2	3	4	5	6	7
4.Elismerjük, hogy a másik csapat méltó vetélytárs volt számunkra a feladat során.	1	2	3	4	5	6	7
5.Nem akartuk megbántani a másik csapat tagjait a feladat során.	1	2	3	4	5	6	7
6.Elismerjük, hogy *nem* mindig voltunk őszinték a feladat során.	1	2	3	4	5	6	7
7.Szeretnénk bocsánatot kérni a másik csapat tagjaitól.	1	2	3	4	5	6	7

4. *Egyéni zárókérdőív*

ZÁRÓKÉRDŐÍV – EGYÉNI KITÖLTÉS

SAJÁT CSAPATNÉV: _____

EGYÉNI AZONOSÍTÓ: _____

Kapott-e a csapata visszajelzést a másik csapattól? IGEN / NEM

HA NEM: volt –e indoklás, hogy miért?

……

1. Mennyire jellemzőek az alábbi érzelmek Önre jelenleg?

	Egyáltalán nem jellemző	Nem jellemző	Csekély mértékben	Közepes mértékben	Jellemző	Nagyon jellemző	Teljes mértékben
Elégedettség	1	2	3	4	5	6	7
Boldogság	1	2	3	4	5	6	7
Szomorúság	1	2	3	4	5	6	7
Csalódottság	1	2	3	4	5	6	7
Diadalittasság	1	2	3	4	5	6	7
Büszkeség	1	2	3	4	5	6	7
Magabiztosság	1	2	3	4	5	6	7
Tehetetlenség	1	2	3	4	5	6	7
Káröröm	1	2	3	4	5	6	7
Megalázottság	1	2	3	4	5	6	7
Szégyen	1	2	3	4	5	6	7
Szorongás	1	2	3	4	5	6	7
Önvád	1	2	3	4	5	6	7
Egyéb: ……	1	2	3	4	5	6	7

- **Folytatás a következő oldalon (utolsó oldal)-**

2. **Mennyire jellemzőek az alábbi érzések a <u>MÁSIK CSAPATTAL KAPCSOLATBAN?</u>**

	Egyáltalán nem jellemző	Nem jellemző	Csekély mértékben	Közepes mértékben	Jellemző	Nagyon jellemző	Teljes mértékben
Düh	1	2	3	4	5	6	7
Óvatosság	1	2	3	4	5	6	7
Sértettség	1	2	3	4	5	6	7
Irigység	1	2	3	4	5	6	7
Bizalom	1	2	3	4	5	6	7
Tisztelet	1	2	3	4	5	6	7
Fenyegetettség	1	2	3	4	5	6	7
Elismerés	1	2	3	4	5	6	7
Bosszúvágy	1	2	3	4	5	6	7
Féltékenység	1	2	3	4	5	6	7
Sajnálat	1	2	3	4	5	6	7
Bűntudat	1	2	3	4	5	6	7
Együttérzés	1	2	3	4	5	6	7
Lelkiismeret-furdalás	1	2	3	4	5	6	7
Megvetés	1	2	3	4	5	6	7
Egyéb:……	1	2	3	4	5	6	7

3. **Mennyire szívesen dolgoznál együtt az ellenfél csapatával más feladatban?**

Egyáltalán nem *Nagyon szívesen*

1	2	3	4	5	6	7

-Köszönjük az együttműködést!-

5.Follow up Questionnaire in Hungarian: Utánkövető kérdőív

Interperszonális Orientáció Kérdőív – FIRO-B (Schutz, 1958; Rudas, 2006)

Az alábbi kérdőívben 54 állítás olvasható a társas viselkedési szokások kapcsán. A kitöltés során általánosságban gondoljon magára. Nincs jó vagy rossz válasz, minden embernek megvannak a saját viselkedési szokásai. Ne azt jelölje ahogy gondolja, hogy *kellene* viselkedni, hanem azt, ahogy Ön általában szokott. Legyen annyira őszinte, amennyire csak lehetséges. Annak ellenére, hogy néhány kérdés hasonlíthat egymáshoz kérjük, hogy mindegyiket egymástól függetlenül ítélje meg. A kitöltés során nincs időkorlát, általában kb. 15 percet vesz igénybe. Köszönjük az együttműködést!

Az első 16 állítás időbeli gyakoriságra kérdez rá. Milyen gyakran igaz Önre?

1 - Rendszeresen 2 - Gyakran 3 - Időnként 4 - Alkalmanként 5 - Ritkán 6 - Soha

1. Megpróbálok emberek között lenni.	1	2	3	4	5	6
2. Másokra hagyom annak eldöntését, hogy mit csináljunk.	1	2	3	4	5	6
3. Csatlakozom társaságokhoz.	1	2	3	4	5	6
4. Megpróbálok szoros kapcsolatokat kialakítani az emberekkel.	1	2	3	4	5	6
5. Igyekszem társadalmi szervezetekhez csatlakozni, amikor erre módom nyílik	1	2	3	4	5	6
6. Hagyom másoknak, hogy erőteljesen befolyásolják a cselekedeteimet.	1	2	3	4	5	6
7. Megpróbálok bevonódni nem hivatalos társas tevékenységekbe.	1	2	3	4	5	6
8. Megpróbálok szoros, személyes kapcsolatokat létesíteni emberekkel.	1	2	3	4	5	6
9. Megpróbálok másokat bevonni a terveimbe.	1	2	3	4	5	6
10. Hagyom másoknak, hogy irányítsák a cselekedeteimet.	1	2	3	4	5	6
11. Megpróbálom körülvenni magam emberekkel.	1	2	3	4	5	6
12. Megpróbálok közeli és személyes kapcsolatba kerülni másokkal.	1	2	3	4	5	6
13. Amikor mások együtt csinálnak valamit, rendszerint csatlakozom hozzájuk.	1	2	3	4	5	6
14. Engem könnyen irányítanak mások.	1	2	3	4	5	6
15. Megpróbálom elkerülni, hogy egyedül legyek.	1	2	3	4	5	6
16. Megpróbálok részt venni csoportos tevékenységekben.	1	2	3	4	5	6

A 17-40. állítás arra kérdez rá, hogy hány ember esetében jellemzőek Önre az alábbi viselkedésformák. Nincs jó és rossz válasz, azt a választ jelölje amelyik a leginkább jellemző.

1 – Ez a legtöbb ember esetében igaz 2 - Sok ember esetében igaz 3 - Néhány ember esetében igaz 4 - Kevés ember esetében igaz 5 - Egy vagy két ember esetében igaz csak 6 – Senki esetében sem igaz

Példa: Megpróbálok barátságos lenni az emberekkel – 1: Ez a legtöbb ember esetében igaz, vagy pl. 6: Senkinél sem próbálok meg barátságos lenni.

17. Megpróbálok barátságos lenni emberekkel.	1	2	3	4	5	6
18. Rábízom másokra a döntést, hogy mi történjen.	1	2	3	4	5	6
19. A személyes kapcsolataim az emberekkel hűvösek és távolságtartóak.	1	2	3	4	5	6
20. Másokra hagyom, hogy irányítsák a dolgokat.	1	2	3	4	5	6
21. Megpróbálok szoros kapcsolatokat kialakítani az emberekkel.	1	2	3	4	5	6
22. Hagyom másoknak, hogy erőteljesen befolyásolják a cselekedeteimet.	1	2	3	4	5	6
23. Megpróbálok közel kerülni az emberekhez és személyes lenni velük.	1	2	3	4	5	6
24. Hagyom másoknak, hogy irányítsák a cselekedeteimet.	1	2	3	4	5	6
25. Az emberekkel hűvösen és távolságtartóan viselkedem.	1	2	3	4	5	6
26. Könnyű másoknak vezetni engem.	1	2	3	4	5	6
27. Megpróbálok szoros és személyes kapcsolatokat létesíteni emberekkel.	1	2	3	4	5	6
28. Szeretem, ha mások bevonnak dolgokba.	1	2	3	4	5	6
29. Szeretem, ha az emberek közvetlenek és személyesek velem.	1	2	3	4	5	6
30. Megpróbálom erősen befolyásolni mások cselekedeteit.	1	2	3	4	5	6
31. Szeretem, ha mások meghívnak, hogy kapcsolódjak be a tevékenységeikbe.	1	2	3	4	5	6
32. Szeretem, ha az emberek közvetlenek irányomban.	1	2	3	4	5	6
33. Megpróbálom kézbe venni a dolgokat, amikor másokkal vagyok.	1	2	3	4	5	6
34. Szeretem, ha az emberek bevonnak a tevékenységeikbe.	1	2	3	4	5	6
35. Szeretem, ha az emberek hűvösen és távolságtartóan viselkednek irányomban.	1	2	3	4	5	6
36. Igyekszem elérni, hogy mások úgy végezzék a dolgokat, ahogy én akarom.	1	2	3	4	5	6
37. Szeretem, ha az emberek megkérnek, hogy csatlakozzam a megbeszélésükhöz.	1	2	3	4	5	6
38. Szeretem, ha mások barátságosan viszonyulnak hozzám.	1	2	3	4	5	6
39. Szeretem, ha az emberek meghívnak, hogy vegyek részt a tevékenységeikben.	1	2	3	4	5	6

40. Szeretem, ha az emberek távolságtartóan viselkednek irányomban.	1	2	3	4	5	6

1 - Rendszeresen 2 - Gyakran 3 - Időnként 4 - Alkalmanként 5 - Ritkán 6 - Soha

41. Megpróbálok én dominálni, amikor másokkal vagyok.	1	2	3	4	5	6
42. Szeretem, ha mások bevonnak a dolgokba.	1	2	3	4	5	6
43. Szeretem, ha közvetlenek velem az emberek.	1	2	3	4	5	6
44. Megpróbálom rávenni az embereket, hogy azt csinálják, amit én akarok.	1	2	3	4	5	6
45. Szeretem, ha mások meghívnak, hogy kapcsolódjak be a tevékenységeikbe.	1	2	3	4	5	6
46. Szeretem, ha az emberek hűvösen és távolságtartóan viselkednek velem szemben.	1	2	3	4	5	6
47. Megpróbálom erősen befolyásolni mások cselekedeteit.	1	2	3	4	5	6
48. Szeretem, ha az emberek bevonnak a tevékenységeikbe.	1	2	3	4	5	6
49. Szeretem, ha az emberek közvetlenek és személyesek velem.	1	2	3	4	5	6
50. Megpróbálom átvenni az irányítást, amikor másokkal vagyok.	1	2	3	4	5	6
51. Szeretem, ha az emberek meghívnak, hogy vegyek részt a tevékenységeikben.	1	2	3	4	5	6
52. Szeretem, ha az emberek távolságtartóan viselkednek irányomban.	1	2	3	4	5	6
53. Igyekszem elérni, hogy mások úgy végezzék a dolgokat, ahogy én akarom.	1	2	3	4	5	6
54. Én irányítom a dolgokat, amikor másokkal együtt vagyok.	1	2	3	4	5	6

7.3 Appendix 2.: Quasi-independent variable category code system and descriptive data (Research 1)

Category	Criteria description	Number of teams	N
Cheater total:	Criteria: 1. final score reflects either absolute or relative winning (relative winning is in the negative range) 2. a) cheated in the first negotiation (while their team partner kept the agreement) and no second took place or 2. b) cheated in the second negotiation (while their team partner kept their agreement) or 2. c) cheated in both negotiation rounds (while their team partner kept their agreement)	**41**	**91**
Cheater Type 1: Relative winner	- relative winner (final scores are in the negative range) - cheating in the first negotiation round - lack of second negotiation Additional information: – In 16 cases out of 20 all team members were in agreement before the negotiation to use cheating as a premeditated strategy indicated by online (not retrospective) report	20	45
Cheater Type 2: Absolute winner	- absolute winner (team's final score is in the positive range while the opponent team's score is in the negative) - cheating in the second negotiation round Additional information: – In 10 cases out of 19 all team members were in agreement before the negotiation to use cheating as a premeditated strategy indicated by online (not retrospective) report – 15 teams had a successful first negotiation and 4 did not have a first one	19	41
Cheater Type 3: Double cheater	- absolute winner (team's final score is in the positive range while the opponent team's score is in the negative) - cheated in both negotiation rounds (while their team partner kept the agreement) Additional information: - in both cases all members of the teams were in agreement before each of the negotiation round to use cheating ad a premeditated	2	5

	strategy indicated by online (not retrospective) report		
Victim total:	Criteria: 1. final score reflects either absolute or relative losing 2.a) a victim of cheating in the first negotiation (their team partner did not keep the agreement) and no second negotiation took place or 2.b) a victim of cheating in the second negotiation or 2.c) a victim of cheating in both negotiation rounds	**41**	**88**
Victim Type 1: Relative loser	- relative loser (final score is in the negative range for both teams) - becomes a victim in the first negotiation round - lack of second negotiation	20	43
Victim Type 2: Absolute loser	- absolute loser (final score is in the negative range while the opponent team's score is in the positive) - becomes a victim of cheating in the second negotiation round Additional information: – 15 teams had a successful first negotiation and 4 did not have a first negotiation	19	40
Victim Type 3: Double victim	- absolute loser (team's final score is in the negative range while the opponent team's score is in the positive) - becomes a victim of cheating in both negotiation rounds	2	5
Duals total:	Criteria: - both teams are in the negative range (negative draw, negative winner or loser) - both teams made an agreement for being cooperative that none of them kept in same negotiation round (either first or second)	**16** **(8 team pairs)**	**34**
Dual Type 1	- both teams' scores are in the negative range (negative draw, negative winner or loser) - both teams cheated on one another in the first negotiation round (agreed on a cooperative strategy that none of them kept) - no second negotiation takes place	6 (3 team pairs)	13
Dual Type 2	- both teams' scores are in the negative range (negative draw, negative winner or loser) - both teams cheated on one another in the second negotiation round (agreed on a cooperative strategy that none of them kept)	10 (5 team pairs)	21

	- all 5 team pairs had a successful (meaning cooperative) first negotiation round		
Cooperatives total:	Criteria: 1. Both teams' final scores were in the positive range 2. There was no history of cheating 3. There was at least of one round of successful negotiation (meaning that both teams reached an agreement of cooperation and both kept their word)	**26** **(13 team pairs)**	**61**
Cooperative Type 1: Positive draw	positive draw results for the team pairs with: - both negotiations being successful	14 (7 team pairs)	32
Cooperative Type 2: Relative winner	relative winner (scores are in positive range) with: - both negotiations being successful (5 cases) - lack of first negotiation and the second one being successful (1 case)	6	15
Cooperative Type 3: Relative looser	relative loser (scores are in positive range) with: - both negotiations being successful (5 cases) - lack of first negotiation and the second one being successful (1 case)	6	14
Other total:	Teams not fitting in either of the categories above (please see subcategories explained below):	**58**	**128**
Other: No negotiation	- no negotiation took place between the teams	14 (7 team pairs)	28
Other: Ambiguous roles 1.	- after both teams symmetrically cheated on one other in the first negotiation they cooperated in the second, resulting in a win-win outcome (positive turn after dual betrayal)	6 (3 team pairs)	16
Other: Ambiguous roles 2.	- the team was a cheater in the first negotiation round and became a victim in the second negotiation resulting in an absolute loser score (non-synchron duals type 1)	3	6
Other: Ambiguous roles 3.	- the team was a victim in the first negotiation round and became cheater in the second negotiation resulting in an absolute winner score (non-synchron duals type 2)	3	7
Other: Ambiguous roles 4.	- the team was a cheater in the first negotiation, dual (both teams cheated on each other) in the second negotiation (cheater and dual roles)	6	14

Other: Ambiguous roles 5.	- the team was a victim in the first negotiation and dual (both teams cheated on each other) in the second negotiation (victim and dual roles)	6	15
Other: Ambiguous roles 6.	- the first negotiation cheater team made a reconciliatory action still within the course of the simulation by making a self-sacrifice and let the other team win. The teams reported discomfort for cheating and were motivated to make it up for the other team even at the cost of losing.	4 (2 team pairs)	8
Other: Case cannot be categorized	- team sheet has not been filled in sufficiently (6 cases) - team reported that they had misunderstood the task (1 case) - complex agreement was offered taking the future rounds into considerations (1 case)	16 (8 team pairs)	34
Total:		**182**	**402**

7.4 Appendix 3. Descriptive statistics of continuous dependent variables of Research 1

Conflict-related perception of the other team

	Mean	SD	Median	Min	Max
Perceived Warmth	.57	1.91	1	-3	3
Perceived Morality	.14	2.39	0	-3	3
Perceived Cooperation	-.01	2.4	1	-3	3
Perceived Competence	.25	2.02	0	-3	3
Perceived Strength	.50	1.71	1	-3	3
Perceived Control	.09	1.56	0	-3	3

Self-perception in conflict

	Mean	SD	Median	Min	Max
Warmth	.91	1.66	1	-3	3
Morality	.29	2.36	1	-3	3
Cooperation	.23	2.29	0	-3	3
Competence	.46	2.00	1	-3	3
Strength	1.19	1.45	2	-3	3
Control	.98	1.44	1	-3	3

Each unipolar scale (below) was transformed from 1 to 7 to 0 to 6.

Outcome-related attitudes: satisfaction and perceived fairness

	Mean	SD	Median	Min	Max
Satisfaction	3.91	1.93	4	0	6
Perceived fairness	3.47	2.10	4	0	6

Conflict- related competence-based and interpersonal emotions

	Mean	SD	Median	Min	Max
Pride	2.63	1.91	2	0	6
Self-confidence	3.46	1.76	4	0	6
Shame	.53	1.26	0	0	6
Schadenfreude	.71	1.38	0	0	6
Trust	1.87	2.06	1	0	6
Appreciation	2.43	2.01	2	0	6
Respect	2.74	2.12	3	0	6
Guilt	.72	1.42	0	0	6
Bad conscience	.71	1.45	0	0	6
Pity	1.04	1.69	0	0	6
Compassion	1.56	1.94	1	0	6
Anger	1.40	1.97	0	0	6
Vengefulness	1.46	2.00	0	0	6
Resentment	1.30	1.84	0	0	6
Contempt	.95	1.72	0	0	6
Intimidation	.49	1.05	0	0	6

Conflict attributions

Attribution	Mean	SD	Median	Min	Max
to Self	3.28	1.84	3	0	6
to Other	3.39	1.74	3	0	6
to Task	3.29	1.89	3	0	6

Willingness to reconcile

	Mean	SD	Median	Min	Max
Willingness to reconcile	3.55	1.98	4	0	6

Perceived team cohesion

	Mean	SD	Median	Min	Max
Perceived team cohesion	4.37	1.77	5	0	6

Conflict-related interpersonal needs

	Mean	SD	Median	Min	Max
Need for control	3.02	1,96	3	0	6
Need for worthiness	3.13	1,97	3	0	6
Need for competence	2.95	1,97	3	0	6
Need for strength	2.78	2,09	3	0	6
Need for acceptance (warmth)	3.62	2,03	4	0	6
Need for morality	4.09	1,89	4	0	6
Need for understanding	2.71	2,00	3	0	6
Need to be seen harmless	3.57	2,01	4	0	6
Need to be seen well-meaning	4.05	2,18	5	0	6

Need items	nr of items	Cronbach α
Agentic needs • need for control, worthiness, competence, strength	4	.751
Moral-social need items • need for acceptance, morality, understanding, harmlessness, well-meaning	5	.840

Team Feedback Message items (per team)

	Mean	SD	Median	Min	Max
Message of acknowledging dishonesty	2.94	2.79	3	0	6
Message of apology	1.72	2.40	0	0	6
Message of recognition of worthiness	4.59	1.88	6	0	6
Message of good intention	5.56	1.22	6	0	6
Message of acceptance	4.77	1.81	6	0	6
Message restoring moral image	4.56	1.91	6	0	6
Message of understanding motives	4.56	2.02	5	0	6

Message items	nr of items	Cronbach α
Empowerment message items • messages of acknowledging dishonest, apology, worthiness, good intent	4	.592
Acceptance message items • messages of acceptance, restoring moral image, understanding motives	3	.806

Trait interpersonal needs (FIRO-B)

FIRO-B subscale	Nr. of items	Mean (min:0; max:9)	SD	Cronbach α
Expressed Inclusion	9	4,72	2,215	.745
Wanted Inclusion	9	5,96	2,970	.900
Expressed Affection	9	5,59	2,734	.850
Wanted Affection	9	7,61	2,135	.861
Expressed Control	9	3,60	2,653	.853
Wanted Control	9	2,02	2,245	.839
Total	54	4,91	3,789	.889

Repeated measures

Willingness to reconcile T2

	Mean	SD	Median	Min	Max
Willingness to reconcile (T2)	3.95	1.99	5	0	6

7.5 Appendix 4. Pairwise post-hoc analyses of the GEE group comparisons and descriptive group statistics of Research 1

Other perception dimensions

		Perceived Warmth (cold-warm)					
		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	,8722	,44633	1	,304	-,3053	2,0497
	Victims	2,1888***	,33086	1	,000	1,3159	3,0617
	Cheaters	,0600	,27800	1	1,000	-,6735	,7934
Duals	Cooperatives	-,8722	,44633	1	,304	-2,0497	,3053
	Victims	1,3166*	,46171	1	,026	,0985	2,5347
	Cheaters	-,8122	,42544	1	,337	-1,9347	,3102
Victims	Cooperatives	-2,1888***	,33086	1	,000	-3,0617	-1,3159
	Duals	-1,3166*	,46171	1	,026	-2,5347	-,0985
	Cheaters	-2,1288***	,30209	1	,000	-2,9258	-1,3318
Cheaters	Cooperatives	-,0600	,27800	1	1,000	-,7934	,6735
	Duals	,8122	,42544	1	,337	-,3102	1,9347
	Victims	2,1288***	,30209	1	,000	1,3318	2,9258

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.
Group means are presented in Figure 6.

Perceived Morality
(deceptive – honest)

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	3,8980***	,34737	1	,000	2,9815	4,8145
	Victims	4,1704***	,27989	1	,000	3,4320	4,9088
	Cheaters	,1407	,24004	1	1,000	-,4926	,7740
Duals	Cooperatives	-3,8980***	,34737	1	,000	-4,8145	-2,9815
	Victims	,2724	,36421	1	1,000	-,6885	1,2333
	Cheaters	-3,7573***	,33456	1	,000	-4,6400	-2,8747
Victims	Cooperatives	-4,1704***	,27989	1	,000	-4,9088	-3,4320
	Duals	-,2724	,36421	1	1,000	-1,2333	,6885
	Cheaters	-4,0297***	,26382	1	,000	-4,7257	-3,3337
Cheaters	Cooperatives	-,1407	,24004	1	1,000	-,7740	,4926
	Duals	3,7573***	,33456	1	,000	2,8747	4,6400
	Victims	4,0297***	,26382	1	,000	3,3337	4,7257

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.
Group means are presented in Figure 6.

Perceived Cooperation
(competitive – cooperative)

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	2,8053***	,57372	1	,000	1,2916	4,3189
	Victims	3,3579***	,40326	1	,000	2,2940	4,4218
	Cheaters	,1473	,41286	1	1,000	-,9419	1,2366
Duals	Cooperatives	-2,8053***	,57372	1	,000	-4,3189	-1,2916
	Victims	,5526	,54131	1	1,000	-,8755	1,9807
	Cheaters	-2,6579***	,54850	1	,000	-4,1050	-1,2108
Victims	Cooperatives	-3,3579***	,40326	1	,000	-4,4218	-2,2940
	Duals	-,5526	,54131	1	1,000	-1,9807	,8755
	Cheaters	-3,2105***	,36649	1	,000	-4,1774	-2,2436
Cheaters	Cooperatives	-,1473	,41286	1	1,000	-1,2366	,9419
	Duals	2,6579***	,54850	1	,000	1,2108	4,1050
	Victims	3,2105***	,36649	1	,000	2,2436	4,1774

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.
Group means are presented in Figure 6.

Perceived Competence
(naive-smart)

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	-1,0309	,46724	1	,164	-2,2636	,2018
	Victims	-1,2204***	,21417	1	,000	-1,7854	-,6554
	Cheaters	1,9890***	,27262	1	,000	1,2698	2,7083
Duals	Cooperatives	1,0309	,46724	1	,164	-,2018	2,2636
	Victims	-,1895	,47343	1	1,000	-1,4385	1,0596
	Cheaters	3,0199***	,50259	1	,000	1,6940	4,3459
Victims	Cooperatives	1,2204***	,21417	1	,000	,6554	1,7854
	Duals	,1895	,47343	1	1,000	-1,0596	1,4385
	Cheaters	3,2094***	,28311	1	,000	2,4625	3,9563
Cheaters	Cooperatives	-1,9890***	,27262	1	,000	-2,7083	-1,2698
	Duals	-3,0199***	,50259	1	,000	-4,3459	-1,6940
	Victims	-3,2094***	,28311	1	,000	-3,9563	-2,4625

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.
Group means are presented in Figure 6.

Perceived Strength
(weak-strong)

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	-,0545	,43630	1	1,000	-1,2056	1,0965
	Victims	-,3523	,25372	1	,990	-1,0217	,3170
	Cheaters	,9753***	,31101	1	,010	,1548	1,7958
Duals	Cooperatives	,0545	,43630	1	1,000	-1,0965	1,2056
	Victims	-,2978	,44121	1	1,000	-1,4618	,8662
	Cheaters	1,0298	,47646	1	,184	-,2272	2,2868
Victims	Cooperatives	,3523	,25372	1	,990	-,3170	1,0217
	Duals	,2978	,44121	1	1,000	-,8662	1,4618
	Cheaters	1,3276***	,31787	1	,000	,4890	2,1662
Cheaters	Cooperatives	-,9753***	,31101	1	,010	-1,7958	-,1548
	Duals	-1,0298	,47646	1	,184	-2,2868	,2272
	Victims	-1,3276***	,31787	1	,000	-2,1662	-,4890

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.
Group means are presented in Figure 6.

Perceived Control (low-high)

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	-,1178	,27465	1	1,000	-,8424	,6068
	Victims	-,3743	,20919	1	,441	-,9262	,1776
	Cheaters	1,1629***	,25424	1	,000	,4921	1,8336
Duals	Cooperatives	,1178	,27465	1	1,000	-,6068	,8424
	Victims	-,2565	,27698	1	1,000	-,9872	,4743
	Cheaters	1,2807***	,31241	1	,000	,4565	2,1049
Victims	Cooperatives	,3743	,20919	1	,441	-,1776	,9262
	Duals	,2565	,27698	1	1,000	-,4743	,9872
	Cheaters	1,5372***	,25676	1	,000	,8597	2,2146
Cheaters	Cooperatives	-1,1629***	,25424	1	,000	-1,8336	-,4921
	Duals	-1,2807***	,31241	1	,000	-2,1049	-,4565
	Victims	-1,5372***	,25676	1	,000	-2,2146	-,8597

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01. Group means are presented in Figure 6.

Self- perception dimensions Self-perception: Warmth

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	,5689	,36094	1	,690	-,3834	1,5211
	Victims	,3339	,29859	1	1,000	-,4539	1,1217
	Cheaters	1,5900***	,32578	1	,000	,7305	2,4495
Duals	Cooperatives	-,5689	,36094	1	,690	-1,5211	,3834
	Victims	-,2349	,35240	1	1,000	-1,1647	,6948
	Cheaters	1,0212**	,37571	1	,039	,0299	2,0124
Victims	Cooperatives	-,3339	,29859	1	1,000	-1,1217	,4539
	Duals	,2349	,35240	1	1,000	-,6948	1,1647
	Cheaters	1,2561***	,31629	1	,000	,4217	2,0905
Cheaters	Cooperatives	-1,5900***	,32578	1	,000	-2,4495	-,7305
	Duals	-1,0212**	,37571	1	,039	-2,0124	-,0299
	Victims	-1,2561***	,31629	1	,000	-2,0905	-,4217

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.
Group means are presented in Figure 8.

Self-perception: Morality

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	3,6090***	,36551	1	,000	2,6447	4,5733
	Victims	,2965	,26461	1	1,000	-,4016	,9946
	Cheaters	4,2350***	,25246	1	,000	3,5689	4,9010
Duals	Cooperatives	-3,6090***	,36551	1	,000	-4,5733	-2,6447
	Victims	-3,3126***	,38576	1	,000	-4,3303	-2,2948
	Cheaters	,6259	,37753	1	,584	-,3701	1,6219
Victims	Cooperatives	-,2965	,26461	1	1,000	-,9946	,4016
	Duals	3,3126***	,38576	1	,000	2,2948	4,3303
	Cheaters	3,9385***	,28098	1	,000	3,1972	4,6798
Cheaters	Cooperatives	-4,2350***	,25246	1	,000	-4,9010	-3,5689
	Duals	-,6259	,37753	1	,584	-1,6219	,3701
	Victims	-3,9385***	,28098	1	,000	-4,6798	-3,1972

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.
Group means are presented in Figure 8.

Self-perception: Cooperation

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	2,3817***	,51311	1	,000	1,0280	3,7354
	Victims	,6379	,36833	1	,500	-,3339	1,6096
	Cheaters	2,6789***	,36434	1	,000	1,7176	3,6401
Duals	Cooperatives	-2,3817***	,51311	1	,000	-3,7354	-1,0280
	Victims	-1,7438**	,53022	1	,006	-3,1427	-,3450
	Cheaters	,2972	,52746	1	1,000	-1,0944	1,6888
Victims	Cooperatives	-,6379	,36833	1	,500	-1,6096	,3339
	Duals	1,7438**	,53022	1	,006	,3450	3,1427
	Cheaters	2,0410***	,38807	1	,000	1,0172	3,0648
Cheaters	Cooperatives	-2,6789***	,36434	1	,000	-3,6401	-1,7176
	Duals	-,2972	,52746	1	1,000	-1,6888	1,0944
	Victims	-2,0410***	,38807	1	,000	-3,0648	-1,0172

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.
Group means are presented in Figure 8.

Self-perception: Competence

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	-,8399	,48066	1	,483	-2,1080	,4282
	Victims	1,6118***	,26822	1	,000	,9042	2,3195
	Cheaters	-1,3822***	,22291	1	,000	-1,9703	-,7941
Duals	Cooperatives	,8399	,48066	1	,483	-,4282	2,1080
	Victims	2,4518***	,49478	1	,000	1,1464	3,7571
	Cheaters	-,5423	,47176	1	1,000	-1,7869	,7024
Victims	Cooperatives	-1,6118***	,26822	1	,000	-2,3195	-,9042
	Duals	-2,4518***	,49478	1	,000	-3,7571	-1,1464
	Cheaters	-2,9940***	,25192	1	,000	-3,6587	-2,3294
Cheaters	Cooperatives	1,3822***	,22291	1	,000	,7941	1,9703
	Duals	,5423	,47176	1	1,000	-,7024	1,7869
	Victims	2,9940***	,25192	1	,000	2,3294	3,6587

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.
Group means are presented in Figure 8.

Self-perception: Strength

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	-,3341	,35951	1	1,000	-1,2826	,6144
	Victims	,4134	,22556	1	,401	-,1817	1,0085
	Cheaters	-,4940	,21943	1	,146	-1,0729	,0849
Duals	Cooperatives	,3341	,35951	1	1,000	-,6144	1,2826
	Victims	,7475	,36241	1	,235	-,2086	1,7037
	Cheaters	-,1599	,35863	1	1,000	-1,1060	,7863
Victims	Cooperatives	-,4134	,22556	1	,401	-1,0085	,1817
	Duals	-,7475	,36241	1	,235	-1,7037	,2086
	Cheaters	-,9074***	,22415	1	,000	-1,4987	-,3160
Cheaters	Cooperatives	,4940	,21943	1	,146	-,0849	1,0729
	Duals	,1599	,35863	1	1,000	-,7863	1,1060
	Victims	,9074***	,22415	1	,000	,3160	1,4987

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.
Group means are presented in Figure 8.

Self-perception: Control

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	,0968	,32535	1	1,000	-,7616	,9551
	Victims	,1569	,23449	1	1,000	-,4618	,7755
	Cheaters	-,6897**	,23044	1	,017	-1,2977	-,0818
Duals	Cooperatives	-,0968	,32535	1	1,000	-,9551	,7616
	Victims	,0601	,31777	1	1,000	-,7782	,8985
	Cheaters	-,7865	,31479	1	,075	-1,6170	,0440
Victims	Cooperatives	-,1569	,23449	1	1,000	-,7755	,4618
	Duals	-,0601	,31777	1	1,000	-,8985	,7782
	Cheaters	-,8466***	,21961	1	,001	-1,4260	-,2672
Cheaters	Cooperatives	,6897**	,23044	1	,017	,0818	1,2977
	Duals	,7865	,31479	1	,075	-,0440	1,6170
	Victims	,8466***	,21961	1	,001	,2672	1,4260

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.
Group means are presented in Figure 8.

Emotions

Pride

Competence-based intrapersonal emotion

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	1,2406***	,38716	1	,008	,2192	2,2621
	Victims	1,3908***	,35635	1	,001	,4507	2,3310
	Cheaters	,4026	,35747	1	1,000	-,5404	1,3457
Duals	Cooperatives	-1,240***	,38716	1	,008	-2,2621	-,2192
	Victims	,1502	,36263	1	1,000	-,8065	1,1069
	Cheaters	-,8380	,36373	1	,127	-1,7976	,1216
Victims	Cooperatives	-1,3908***	,35635	1	,001	-2,3310	-,4507
	Duals	-,1502	,36263	1	1,000	-1,1069	,8065
	Cheaters	-,9882**	,33074	1	,017	-1,8608	-,1156
Cheaters	Cooperatives	-,4026	,35747	1	1,000	-1,3457	,5404
	Duals	,8380	,36373	1	,127	-,1216	1,7976
	Victims	,9882**	,33074	1	,017	,1156	1,8608

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Pride

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Cooperatives	3,4988	,26961	3,0084	4,0692
Duals	2,2582	,27786	1,7743	2,8741
Victims	2,1080	,23301	1,6974	2,6179
Cheaters	3,0962	,23472	2,6687	3,5921

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Self-confidence
Competence-based intrapersonal emotions

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	,4367	,38045	1	1,000	-,5671	1,4404
	Victims	,9691**	,31763	1	,014	,1311	1,8070
	Cheaters	,2662	,28633	1	1,000	-,4892	1,0217
Duals	Cooperatives	-,4367	,38045	1	1,000	-1,4404	,5671
	Victims	,5324	,38658	1	1,000	-,4875	1,5523
	Cheaters	-,1704	,36131	1	1,000	-1,1237	,7828
Victims	Cooperatives	-,9691**	,31763	1	,014	-1,8070	-,1311
	Duals	-,5324	,38658	1	1,000	-1,5523	,4875
	Cheaters	-,7028	,29443	1	,102	-1,4796	,0740
Cheaters	Cooperatives	-,2662	,28633	1	1,000	-1,0217	,4892
	Duals	,1704	,36131	1	1,000	-,7828	1,1237
	Victims	,7028	,29443	1	,102	-,0740	1,4796

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Self-confidence

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Cooperatives	3,9879	,21930	3,5581	4,4177
Duals	3,5512	,31089	2,9419	4,1605
Victims	3,0188	,22977	2,5685	3,4692
Cheaters	3,7216	,18411	3,3608	4,0825

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Shame

Competence-based intrapersonal emotions

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	-,1754	,22745	1	1,000	-,7754	,4247
	Victims	-,4429	,18399	1	,096	-,9283	,0425
	Cheaters	-,4019	,22195	1	,421	-,9874	,1837
Duals	Cooperatives	,1754	,22745	1	1,000	-,4247	,7754
	Victims	-,2675	,25644	1	1,000	-,9441	,4090
	Cheaters	-,2265	,28490	1	1,000	-,9781	,5251
Victims	Cooperatives	,4429	,18399	1	,096	-,0425	,9283
	Duals	,2675	,25644	1	1,000	-,4090	,9441
	Cheaters	,0410	,25157	1	1,000	-,6227	,7047
Cheaters	Cooperatives	,4019	,22195	1	,421	-,1837	,9874
	Duals	,2265	,28490	1	1,000	-,5251	,9781
	Victims	-,0410	,25157	1	1,000	-,7047	,6227

Shame

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Cooperatives	,2476	,09956	,1126	,5446
Duals	,4230	,20450	,1640	1,0911
Victims	,6905	,15472	,4451	1,0713
Cheaters	,6495	,19836	,3570	1,1818

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Schadenfreude

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	-,5499*	,20685	1	,047	-1,0956	-,0042
	Victims	-,2756	,13764	1	,272	-,6387	,0876
	Cheaters	-,9792***	,20142	1	,000	-1,5106	-,4478
Duals	Cooperatives	,5499*	,20685	1	,047	,0042	1,0956
	Victims	,2744	,22823	1	1,000	-,3278	,8765
	Cheaters	-,4292	,27150	1	,683	-1,1455	,2870
Victims	Cooperatives	,2756	,13764	1	,272	-,0876	,6387
	Duals	-,2744	,22823	1	1,000	-,8765	,3278
	Cheaters	-,7036**	,22332	1	,010	-1,2928	-,1144
Cheaters	Cooperatives	,9792***	,20142	1	,000	,4478	1,5106
	Duals	,4292	,27150	1	,683	-,2870	1,1455
	Victims	,7036**	,22332	1	,010	,1144	1,2928

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Schadenfreude

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Cooperatives	,1782	,06944	,0831	,3825
Duals	,7282	,19484	,4310	1,2302
Victims	,4538	,11884	,2716	,7582
Cheaters	1,1574	,18907	,8403	1,5942

Trust

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	2,9382***	,34890	1	,000	2,0177	3,8587
	Victims	3,0799***	,35175	1	,000	2,1519	4,0079
	Cheaters	1,4822***	,39624	1	,001	,4368	2,5276
Duals	Cooperatives	-2,9382***	,34890	1	,000	-3,8587	-2,0177
	Victims	,1417	,27104	1	1,000	-,5734	,8567
	Cheaters	-1,4560***	,32670	1	,000	-2,3179	-,5941
Victims	Cooperatives	-3,0799***	,35175	1	,000	-4,0079	-2,1519
	Duals	-,1417	,27104	1	1,000	-,8567	,5734
	Cheaters	-1,5977***	,32974	1	,000	-2,4676	-,7277
Cheaters	Cooperatives	-1,4822***	,39624	1	,001	-2,5276	-,4368
	Duals	1,4560***	,32670	1	,000	,5941	2,3179
	Victims	1,5977***	,32974	1	,000	,7277	2,4676

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Trust

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Cooperatives	3,9785	,29326	3,4038	4,5533
Duals	1,0404	,18903	,6699	1,4109
Victims	,8987	,19423	,5180	1,2794
Cheaters	2,4963	,26646	1,9741	3,0186

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Appreciation

		Mean Difference		Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	1,7662***		,38731	1	,000	,7444	2,7880
	Victims	2,4420***		,32195	1	,000	1,5926	3,2914
	Cheaters	,6729		,32715	1	,238	-,1902	1,5361
Duals	Cooperatives	-1,7662***		,38731	1	,000	-2,7880	-,7444
	Victims	,6757		,36418	1	,381	-,2851	1,6366
	Cheaters	-1,0933**		,36879	1	,018	-2,0662	-,1203
Victims	Cooperatives	-2,4420***		,32195	1	,000	-3,2914	-1,5926
	Duals	-,6757		,36418	1	,381	-1,6366	,2851
	Cheaters	-1,7690***		,29942	1	,000	-2,5590	-,9791
Cheaters	Cooperatives	-,6729		,32715	1	,238	-1,5361	,1902
	Duals	1,0933**		,36879	1	,018	,1203	2,0662
	Victims	1,7690***		,29942	1	,000	,9791	2,5590

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Appreciation

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Cooperatives	3,8377	,24600	3,3556	4,3199
Duals	2,0715	,29915	1,4852	2,6578
Victims	1,3957	,20770	,9887	1,8028
Cheaters	3,1648	,21567	2,7421	3,5875

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Respect

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	1,4732***	,44191	1	,005	,3073	2,6391
	Victims	2,6125***	,32583	1	,000	1,7529	3,4721
	Cheaters	,3450	,33021	1	1,000	-,5262	1,2161
Duals	Cooperatives	-1,4732***	,44191	1	,005	-2,6391	-,3073
	Victims	1,1393	,43351	1	,052	-,0044	2,2830
	Cheaters	-1,1282	,43681	1	,059	-2,2807	,0242
Victims	Cooperatives	-2,6125***	,32583	1	,000	-3,4721	-1,7529
	Duals	-1,1393	,43351	1	,052	-2,2830	,0044
	Cheaters	-2,2675***	,31888	1	,000	-3,1088	-1,4263
Cheaters	Cooperatives	-,3450	,33021	1	1,000	-1,2161	,5262
	Duals	1,1282	,43681	1	,059	-,0242	2,2807
	Victims	2,2675***	,31888	1	,000	1,4263	3,1088

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Respect

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Cooperatives	4,0268	,23824	3,5598	4,4937
Duals	2,5536	,37219	1,8241	3,2831
Victims	1,4143	,22227	,9786	1,8499
Cheaters	3,6818	,22864	3,2337	4,1299

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Guilt

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	-,1515	,26570	1	1,000	-,8525	,5495
	Victims	-,0196	,16287	1	1,000	-,4493	,4101
	Cheaters	-1,3903***	,26382	1	,000	-2,0864	-,6943
Duals	Cooperatives	,1515	,26570	1	1,000	-,5495	,8525
	Victims	,1319	,24747	1	1,000	-,5210	,7848
	Cheaters	-1,2388***	,32299	1	,001	-2,0909	-,3867
Victims	Cooperatives	,0196	,16287	1	1,000	-,4101	,4493
	Duals	-,1319	,24747	1	1,000	-,7848	,5210
	Cheaters	-1,3707***	,24545	1	,000	-2,0183	-,7232
Cheaters	Cooperatives	1,3903***	,26382	1	,000	,6943	2,0864
	Duals	1,2388***	,32299	1	,001	,3867	2,0909
	Victims	1,3707***	,24545	1	,000	,7232	2,0183

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Guilt

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Cooperatives	,2763	,13394	,1069	,7145
Duals	,4279	,22947	,1495	1,2241
Victims	,2959	,09266	,1602	,5466
Cheaters	1,6667	,22729	1,2757	2,1774

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Bad conscience

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	-,2572	,25693	1	1,000	-,9351	,4206
	Victims	-,0982	,15603	1	1,000	-,5098	,3135
	Cheaters	-1,3937***	,27798	1	,000	-2,1271	-,6603
Duals	Cooperatives	,2572	,25693	1	1,000	-,4206	,9351
	Victims	,1591	,25231	1	1,000	-,5066	,8247
	Cheaters	-1,1364***	,34145	1	,005	-2,0373	-,2356
Victims	Cooperatives	,0982	,15603	1	1,000	-,3135	,5098
	Duals	-,1591	,25231	1	1,000	-,8247	,5066
	Cheaters	-1,2955***	,27371	1	,000	-2,0176	-,5734
Cheaters	Cooperatives	1,3937***	,27798	1	,000	,6603	2,1271
	Duals	1,1364***	,34145	1	,005	,2356	2,0373
	Victims	1,2955***	,27371	1	,000	,5734	2,0176

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Bad conscience

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Cooperatives	,2287	,11554	,0850	,6156
Duals	,4860	,22949	,1926	1,2262
Victims	,3269	,10486	,1744	,6130
Cheaters	1,6224	,25283	1,1954	2,2020

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Compassion

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	,1694	,42421	1	1,000	-,9498	1,2886
	Victims	1,362***	,26673	1	,000	,6586	2,0660
	Cheaters	-1,0007**	,35008	1	,026	-1,9243	-,0771
Duals	Cooperatives	-,1694	,42421	1	1,000	-1,2886	,9498
	Victims	1,1929***	,36555	1	,007	,2285	2,1574
	Cheaters	-1,1701**	,43016	1	,039	-2,3049	-,0352
Victims	Cooperatives	-1,3623***	,26673	1	,000	-2,0660	-,6586
	Duals	-1,1929***	,36555	1	,007	-2,1574	-,2285
	Cheaters	-2,3630***	,27610	1	,000	-3,0914	-1,6346
Cheaters	Cooperatives	1,0007**	,35008	1	,026	,0771	1,9243
	Duals	1,1701**	,43016	1	,039	,0352	2,3049
	Victims	2,3630***	,27610	1	,000	1,6346	3,0914

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Compassion

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Cooperatives	1,7948	,24236	1,3775	2,3387
Duals	1,6255	,34817	1,0682	2,4734
Victims	,4325	,11139	,2611	,7165
Cheaters	2,7955	,25263	2,3417	3,3372

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Pity

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	,1865	,20196	1	1,000	-,3463	,7194
	Victims	-,1993	,22081	1	1,000	-,7819	,3832
	Cheaters	-1,8403***	,30965	1	,000	-2,6572	-1,0234
Duals	Cooperatives	-,1865	,20196	1	1,000	-,7194	,3463
	Victims	-,3859	,18487	1	,221	-,8736	,1019
	Cheaters	-2,0268***	,28514	1	,000	-2,7791	-1,2746
Victims	Cooperatives	,1993	,22081	1	1,000	-,3832	,7819
	Duals	,3859	,18487	1	,221	-,1019	,8736
	Cheaters	-1,6410***	,29878	1	,000	-2,4292	-,8527
Cheaters	Cooperatives	1,8403***	,30965	1	,000	1,0234	2,6572
	Duals	2,0268***	,28514	1	,000	1,2746	2,7791
	Victims	1,6410***	,29878	1	,000	,8527	2,4292

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Pity

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Cooperatives	,4911	,16638	,2528	,9540
Duals	,3046	,11448	,1458	,6363
Victims	,6905	,14516	,4573	1,0425
Cheaters	2,3314	,26115	1,8719	2,9038

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Anger

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	-,5192	,33699	1	,740	-1,4083	,3698
	Victims	-2,4998***	,30841	1	,000	-3,3135	-1,6861
	Cheaters	-,2718	,22996	1	1,000	-,8785	,3349
Duals	Cooperatives	,5192	,33699	1	,740	-,3698	1,4083
	Victims	-1,9806***	,41400	1	,000	-3,0728	-,8883
	Cheaters	,2474	,35939	1	1,000	-,7008	1,1956
Victims	Cooperatives	2,4998***	,30841	1	,000	1,6861	3,3135
	Duals	1,9806***	,41400	1	,000	,8883	3,0728
	Cheaters	2,2280***	,33274	1	,000	1,3501	3,1058
Cheaters	Cooperatives	,2718	,22996	1	1,000	-,3349	,8785
	Duals	-,2474	,35939	1	1,000	-1,1956	,7008
	Victims	-2,2280***	,33274	1	,000	-3,1058	-1,3501

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Anger

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Cooperatives	,3898	,13654	,1962	,7744
Duals	,9090	,30810	,4678	1,7663
Victims	2,8896	,27654	2,3954	3,4858
Cheaters	,6616	,18504	,3824	1,1447

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Vengefulness

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	-,7596	,33189	1	,133	-1,6353	,1160
	Victims	-2,1085***	,34475	1	,000	-3,0180	-1,1989
	Cheaters	-,1524	,22633	1	1,000	-,7495	,4447
Duals	Cooperatives	,7596	,33189	1	,133	-,1160	1,6353
	Victims	-1,3488**	,42525	1	,009	-2,4707	-,2269
	Cheaters	,6073	,33647	1	,427	-,2804	1,4950
Victims	Cooperatives	2,1085***	,34475	1	,000	1,1989	3,0180
	Duals	1,3488**	,42525	1	,009	,2269	2,4707
	Cheaters	1,9561***	,34916	1	,000	1,0349	2,8773
Cheaters	Cooperatives	,1524	,22633	1	1,000	-,4447	,7495
	Duals	-,6073	,33647	1	,427	-1,4950	,2804
	Victims	-1,9561***	,34916	1	,000	-2,8773	-1,0349

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Vengefulness

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Cooperatives	,4568	,15518	,2348	,8890
Duals	1,2165	,29338	,7583	1,9516
Victims	2,5653	,30785	2,0276	3,2455
Cheaters	,6092	,16475	,3585	1,0350

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Resentment

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	-,6300	,31125	1	,258	-1,4512	,1911
	Victims	-2,1946***	,29898	1	,000	-2,9833	-1,4058
	Cheaters	-,3497	,22922	1	,763	-,9544	,2550
Duals	Cooperatives	,6300	,31125	1	,258	-,1911	1,4512
	Victims	-1,5645***	,37989	1	,000	-2,5668	-,5623
	Cheaters	,2803	,32782	1	1,000	-,5845	1,1452
Victims	Cooperatives	2,1946***	,29898	1	,000	1,4058	2,9833
	Duals	1,5645***	,37989	1	,000	,5623	2,5668
	Cheaters	1,8449***	,31620	1	,000	1,0106	2,6791
Cheaters	Cooperatives	,3497	,22922	1	,763	-,2550	,9544
	Duals	-,2803	,32782	1	1,000	-1,1452	,5845
	Victims	-1,8449***	,31620	1	,000	-2,6791	-1,0106

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Resentment

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Cooperatives	,3177	,14482	,1300	,7763
Duals	,9478	,27550	,5361	1,6755
Victims	2,5123	,26156	2,0486	3,0810
Cheaters	,6674	,17767	,3961	1,1246

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Contempt

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	,0182	,10909	1	1,000	-,2696	,3060
	Victims	-1,7520***	,27894	1	,000	-2,4879	-1,0161
	Cheaters	-,2303	,15427	1	,813	-,6373	,1767
Duals	Cooperatives	-,0182	,10909	1	1,000	-,3060	,2696
	Victims	-1,7702***	,27512	1	,000	-2,4961	-1,0444
	Cheaters	-,2486	,14726	1	,549	-,6371	,1400
Victims	Cooperatives	1,7520***	,27894	1	,000	1,0161	2,4879
	Duals	1,7702***	,27512	1	,000	1,0444	2,4961
	Cheaters	1,5217***	,29596	1	,000	,7409	2,3025
Cheaters	Cooperatives	,2303	,15427	1	,813	-,1767	,6373
	Duals	,2486	,14726	1	,549	-,1400	,6371
	Victims	-1,5217***	,29596	1	,000	-2,3025	-,7409

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001.

Contempt

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Cooperatives	,1666	,08371	,0623	,4460
Duals	,1484	,06996	,0589	,3738
Victims	1,9186	,26608	1,4620	2,5179
Cheaters	,3970	,12958	,2093	,7527

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Intimidation

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference	
						Lower	Upper
Cooperatives	Duals	-,0284	,16075	1	1,000	-,4525	,3957
	Victims	-,3223	,16137	1	,275	-,7480	,1034
	Cheaters	-,2802	,16839	1	,576	-,7245	,1640
Duals	Cooperatives	,0284	,16075	1	1,000	-,3957	,4525
	Victims	-,2939	,15914	1	,389	-,7138	,1259
	Cheaters	-,2518	,16625	1	,779	-,6904	,1868
Victims	Cooperatives	,3223	,16137	1	,275	-,1034	,7480
	Duals	,2939	,15914	1	,389	-,1259	,7138
	Cheaters	,0421	,16685	1	1,000	-,3981	,4823
Cheaters	Cooperatives	,2802	,16839	1	,576	-,1640	,7245
	Duals	,2518	,16625	1	,779	-,1868	,6904
	Victims	-,0421	,16685	1	1,000	-,4823	,3981

Intimidation

	Mean	Std. Error	95% Wald Confidence Interval	
			Lower	Upper
Cooperatives	,2746	,11523	,1206	,6250
Duals	,3029	,11208	,1467	,6256
Victims	,5969	,11297	,4119	,8649
Cheaters	,5548	,12278	,3595	,8561

Attributions in conflict

Attribution to Self

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Cooperatives	3,2730	,19093	2,8988	3,6472
Duals	2,6943	,27353	2,1582	3,2304
Victims	2,3508	,20217	1,9545	2,7470
Cheaters	4,4433	,18188	4,0868	4,7998

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Attribution to Self

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	,5787	,33358	1	,497	-,3014	1,4588
	Victims	,9222**	,27808	1	,005	,1885	1,6559
	Cheaters	-1,1703***	,26370	1	,000	-1,8660	-,4746
Duals	Cooperatives	-,5787	,33358	1	,497	-1,4588	,3014
	Victims	,3435	,34014	1	1,000	-,5539	1,2409
	Cheaters	-1,7490***	,32848	1	,000	-2,6156	-,8824
Victims	Cooperatives	-,9222**	,27808	1	,005	-1,6559	-,1885
	Duals	-,3435	,34014	1	1,000	-1,2409	,5539
	Cheaters	-2,0925***	,27195	1	,000	-2,8100	-1,3751
Cheaters	Cooperatives	1,1703***	,26370	1	,000	,4746	1,8660
	Duals	1,7490***	,32848	1	,000	,8824	2,6156
	Victims	2,0925***	,27195	1	,000	1,3751	2,8100

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Attribution to Other

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Cooperatives	2,9775	,17651	2,6315	3,3234
Duals	3,1230	,34658	2,4437	3,8023
Victims	4,2343	,16158	3,9177	4,5510
Cheaters	3,4350	,24255	2,9596	3,9104

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Attribution to Other

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	-,1455	,38894	1	1,000	-1,1717	,8806
	Victims	-1,2569***	,23930	1	,000	-1,8882	-,6256
	Cheaters	-,4575	,29998	1	,763	-1,2489	,3339
Duals	Cooperatives	,1455	,38894	1	1,000	-,8806	1,1717
	Victims	-1,1113*	,38239	1	,022	-2,1202	-,1025
	Cheaters	-,3120	,42302	1	1,000	-1,4280	,8041
Victims	Cooperatives	1,2569***	,23930	1	,000	,6256	1,8882
	Duals	1,1113*	,38239	1	,022	,1025	2,1202
	Cheaters	,7994*	,29144	1	,037	,0305	1,5683
Cheaters	Cooperatives	,4575	,29998	1	,763	-,3339	1,2489
	Duals	,3120	,42302	1	1,000	-,8041	1,4280
	Victims	-,7994*	,29144	1	,037	-1,5683	-,0305

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Attribution to Task

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Cooperatives	3,0735	,26594	2,5523	3,5947
Duals	4,3259	,36909	3,6025	5,0493
Victims	3,0197	,21393	2,6004	3,4390
Cheaters	3,0304	,21582	2,6074	3,4534

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Attribution to Task

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	-1,2524*	,45492	1	,035	-2,4526	-,0522
	Victims	,0538	,34131	1	1,000	-,8466	,9543
	Cheaters	,0431	,34249	1	1,000	-,8605	,9467
Duals	Cooperatives	1,2524*	,45492	1	,035	,0522	2,4526
	Victims	1,3062*	,42661	1	,013	,1807	2,4317
	Cheaters	1,2955*	,42756	1	,015	,1675	2,4235
Victims	Cooperatives	-,0538	,34131	1	1,000	-,9543	,8466
	Duals	-1,3062*	,42661	1	,013	-2,4317	-,1807
	Cheaters	-,0108	,30388	1	1,000	-,8125	,7910
Cheaters	Cooperatives	-,0431	,34249	1	1,000	-,9467	,8605
	Duals	-1,2955*	,42756	1	,015	-2,4235	-,1675
	Victims	,0108	,30388	1	1,000	-,7910	,8125

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Behavioural intent

Willingness to reconcile

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Cooperatives	4,5993	,23457	4,1396	5,0591
Duals	3,8589	,29975	3,2713	4,4464
Victims	2,4602	,25957	1,9515	2,9690
Cheaters	3,8763	,23342	3,4188	4,3338

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Willingness to reconcile

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	,7405	,38063	1	,310	-,2637	1,7447
	Victims	2,1391***	,34986	1	,000	1,2161	3,0621
	Cheaters	,7230	,33092	1	,173	-,1500	1,5961
Duals	Cooperatives	-,7405	,38063	1	,310	-1,7447	,2637
	Victims	1,3986**	,39652	1	,003	,3525	2,4447
	Cheaters	-,0174	,37992	1	1,000	-1,0197	,9849
Victims	Cooperatives	-2,1391***	,34986	1	,000	-3,0621	-1,2161
	Duals	-1,3986**	,39652	1	,003	-2,4447	-,3525
	Cheaters	-1,4161***	,34908	1	,000	-2,3370	-,4951
Cheaters	Cooperatives	-,7230	,33092	1	,173	-1,5961	,1500
	Duals	,0174	,37992	1	1,000	-,9849	1,0197
	Victims	1,4161***	,34908	1	,000	,4951	2,3370

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Outcome-related variables

Outcome Satisfaction

	Mean	Std. Error	95% Wald Confidence Interval Lower	95% Wald Confidence Interval Upper
Cooperatives	5,0349	,17111	4,7105	5,3817
Duals	3,6528	,36589	3,0017	4,4452
Victims	2,5030	,22885	2,0924	2,9943
Cheaters	4,9121	,16798	4,5937	5,2526

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Outcome Satisfaction

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	95% Wald Confidence Interval for Difference Upper
Cooperatives	Duals	1,3821**	,40392	1	,004	,3164	2,4477
	Victims	2,5319***	,28575	1	,000	1,7780	3,2858
	Cheaters	,1228	,23978	1	1,000	-,5098	,7554
Duals	Cooperatives	-1,3821**	,40392	1	,004	-2,4477	-,3164
	Victims	1,1498*	,43157	1	,046	,0112	2,2884
	Cheaters	-1,2593*	,40261	1	,011	-2,3215	-,1971
Victims	Cooperatives	-2,5319***	,28575	1	,000	-3,2858	-1,7780
	Duals	-1,1498*	,43157	1	,046	-2,2884	-,0112
	Cheaters	-2,4091***	,28388	1	,000	-3,1580	-1,6601
Cheaters	Cooperatives	-,1228	,23978	1	1,000	-,7554	,5098
	Duals	1,2593*	,40261	1	,011	,1971	2,3215
	Victims	2,4091***	,28388	1	,000	1,6601	3,1580

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Perceived Fairness

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Cooperatives	4,9025	,23016	4,4716	5,3750
Duals	4,0219	,37281	3,3537	4,8232
Victims	1,7823	,20470	1,4231	2,2323
Cheaters	3,6794	,22747	3,2595	4,1533

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Perceived Fairness

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	,8806	,43813	1	,267	-,2753	2,0365
	Victims	3,1202***	,30802	1	,000	2,3076	3,9328
	Cheaters	1,2231***	,32359	1	,001	,3694	2,0769
Duals	Cooperatives	-,8806	,43813	1	,267	-2,0365	,2753
	Victims	2,2396***	,42531	1	,000	1,1175	3,3616
	Cheaters	,3425	,43672	1	1,000	-,8097	1,4947
Victims	Cooperatives	-3,1202***	,30802	1	,000	-3,9328	-2,3076
	Duals	-2,2396***	,42531	1	,000	-3,3616	-1,1175
	Cheaters	-1,8971***	,30601	1	,000	-2,7044	-1,0897
Cheaters	Cooperatives	-1,2231***	,32359	1	,001	-2,0769	-,3694
	Duals	-,3425	,43672	1	1,000	-1,4947	,8097
	Victims	1,8971***	,30601	1	,000	1,0897	2,7044

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Interpersonal needs in conflict

Need for Control

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Duals	3,4470	,33713	2,7862	4,1077
Victims	3,7174	,19794	3,3294	4,1053
Cheaters	2,7783	,21575	2,3555	3,2012

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Need for Control

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Duals	Victims	-,2704	,39094	1	1,000	-1,2063	,6655
	Cheaters	,6687	,40025	1	,284	-,2895	1,6269
Victims	Duals	,2704	,39094	1	1,000	-,6655	1,2063
	Cheaters	,9390**	,29279	1	,004	,2381	1,6400
Cheaters	Duals	-,6687	,40025	1	,284	-1,6269	,2895
	Victims	-,9390**	,29279	1	,004	-1,6400	-,2381

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Need for Worthiness

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Duals	3,7091	,43290	2,8607	4,5576
Victims	3,1039	,21987	2,6730	3,5348
Cheaters	2,7846	,23540	2,3233	3,2460

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Need for Worthiness

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Duals	Victims	,6052	,48554	1	,638	-,5572	1,7676
	Cheaters	,9245	,49277	1	,182	-,2552	2,1041
Victims	Duals	-,6052	,48554	1	,638	-1,7676	,5572
	Cheaters	,3193	,32211	1	,965	-,4518	1,0904
Cheaters	Duals	-,9245	,49277	1	,182	-2,1041	,2552
	Victims	-,3193	,32211	1	,965	-1,0904	,4518

Need for Strength

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Duals	3,6145	,31093	3,0537	4,2783
Victims	2,6627	,22485	2,2566	3,1420
Cheaters	2,3369	,28101	1,8462	2,9580

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Need for Strength

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Duals	Victims	,9518*	,38372	1	,039	,0332	1,8704
	Cheaters	1,2776**	,41910	1	,007	,2743	2,2810
Victims	Duals	-,9518*	,38372	1	,039	-1,8704	-,0332
	Cheaters	,3258	,35990	1	1,000	-,5357	1,1874
Cheaters	Duals	-1,2776**	,41910	1	,007	-2,2810	-,2743
	Victims	-,3258	,35990	1	1,000	-1,1874	,5357

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Need for Competence

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Duals	3,5436	,33747	2,8822	4,2051
Victims	2,6265	,21366	2,2077	3,0452
Cheaters	2,7776	,25520	2,2775	3,2778

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Need for Competence

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Duals	Victims	,9172	,39942	1	,065	-,0390	1,8734
	Cheaters	,7660	,42310	1	,211	-,2469	1,7789
Victims	Duals	-,9172	,39942	1	,065	-1,8734	,0390
	Cheaters	-,1512	,33283	1	1,000	-,9480	,6456
Cheaters	Duals	-,7660	,42310	1	,211	-1,7789	,2469
	Victims	,1512	,33283	1	1,000	-,6456	,9480

Need for Acceptance (Warmth)

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Duals	3,8164	,33619	3,1575	4,4753
Victims	2,9506	,24005	2,4801	3,4211
Cheaters	4,1489	,24140	3,6757	4,6220

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Need for Acceptance (Warmth)

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Duals	Victims	,8658	,41309	1	,108	-,1232	1,8547
	Cheaters	-,3324	,41388	1	1,000	-1,3233	,6584
Victims	Duals	-,8658	,41309	1	,108	-1,8547	,1232
	Cheaters	-1,1982***	,34044	1	,001	-2,0132	-,3832
Cheaters	Duals	,3324	,41388	1	1,000	-,6584	1,3233
	Victims	1,1982***	,34044	1	,001	,3832	2,0132

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Need for Morality

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Duals	3,8574	,26722	3,3676	4,4183
Victims	3,6750	,23387	3,2441	4,1632
Cheaters	4,3542	,22685	3,9315	4,8223

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Need for Morality

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Duals	Victims	,1824	,35511	1	1,000	-,6677	1,0325
	Cheaters	-,4968	,35053	1	,469	-1,3360	,3423
Victims	Duals	-,1824	,35511	1	1,000	-1,0325	,6677
	Cheaters	-,6792	,32581	1	,111	-1,4592	,1008
Cheaters	Duals	,4968	,35053	1	,469	-,3423	1,3360
	Victims	,6792	,32581	1	,111	-,1008	1,4592

Need for Understanding

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Duals	2,4290	,33192	1,7785	3,0796
Victims	2,0724	,24514	1,5919	2,5528
Cheaters	3,4707	,23260	3,0148	3,9266

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Need for Understanding

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Duals	Victims	,3566	,41263	1	1,000	-,6312	1,3445
	Cheaters	-1,0417*	,40531	1	,031	-2,0120	-,0714
Victims	Duals	-,3566	,41263	1	1,000	-1,3445	,6312
	Cheaters	-1,3983***	,33793	1	,000	-2,2073	-,5893
Cheaters	Duals	1,0417*	,40531	1	,031	,0714	2,0120
	Victims	1,3983***	,33793	1	,000	,5893	2,2073

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Need to be seen Harmless

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Duals	3,8981	,34734	3,2734	4,6419
Victims	2,9742	,21496	2,5814	3,4269
Cheaters	4,4592	,24246	4,0084	4,9606

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Need to be seen Harmless

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Duals	Victims	,9238	,40847	1	,071	-,0541	1,9017
	Cheaters	-,5611	,42359	1	,556	-1,5752	,4530
Victims	Duals	-,9238	,40847	1	,071	-1,9017	,0541
	Cheaters	-1,4849***	,32403	1	,000	-2,2607	-,7092
Cheaters	Duals	,5611	,42359	1	,556	-,4530	1,5752
	Victims	1,4849***	,32403	1	,000	,7092	2,2607

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Need to be seen Well-meaning

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Duals	4,6368	,34181	4,0131	5,3576
Victims	2,9362	,26221	2,4648	3,4979
Cheaters	4,9962	,24855	4,5320	5,5079

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Need to be seen Well-meaning

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Duals	Victims	1,7006***	,43080	1	,000	,6693	2,7319
	Cheaters	-,3593	,42262	1	1,000	-1,3711	,6524
Victims	Duals	-1,7006***	,43080	1	,000	-2,7319	-,6693
	Cheaters	-2,0599***	,36129	1	,000	-2,9249	-1,1950
Cheaters	Duals	,3593	,42262	1	1,000	-,6524	1,3711
	Victims	2,0599***	,36129	1	,000	1,1950	2,9249

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Composit measures on conflict-related needs

Victims' Needs Composit (Factor)

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Duals	,3566377	,16728789	,0287595	,6845160
Victims	,1550772	,10769019	-,0559917	,3661461
Cheaters	-,3309936	,12117465	-,5684915	-,0934956

Agentic Needs Composit (Factor)

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Duals	Victims	,2015605	,19895330	1	,933	-,2747297	,6778507
	Cheaters	,6876313**	,20656363	1	,003	,1931222	1,1821405
Victims	Duals	-,2015605	,19895330	1	,933	-,6778507	,2747297
	Cheaters	,4860708**	,16211254	1	,008	,0979767	,8741649
Cheaters	Duals	-,6876313**	,20656363	1	,003	-1,1821405	-,1931222
	Victims	-,4860708**	,16211254	1	,008	-,8741649	-,0979767

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Moral-Social Needs Composit (Factor)

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Duals	,0181992	,17384922	-,3225390	,3589374
Victims	-,5006705	,11181294	-,7198198	-,2815211
Cheaters	,4873713	,13084513	,2309196	,7438231

Cheaters' Needs Composit (Factor)

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Duals	Victims	,5188696*	,20670192	1	,036	,0240294	1,0137099
	Cheaters	-,4691721	,21758676	1	,093	-,9900705	,0517262
Victims	Duals	-,5188696*	,20670192	1	,036	-1,0137099	-,0240294
	Cheaters	-,9880418***	,17211211	1	,000	-1,4000747	-,5760089
Cheaters	Duals	,4691721	,21758676	1	,093	-,0517262	,9900705
	Victims	,9880418***	,17211211	1	,000	,5760089	1,4000747

Significant levels are indicated by asterisks: ***p<0,001; **0,01 <p < 0,001; *0,05 <p < 0,01.

Moderator variable

Perceived Team Cohesion

	Mean	Std. Error	95% Wald Confidence Interval Lower	Upper
Cooperatives	4,3038	,29532	3,7622	4,9233
Duals	4,7587	,43040	3,9857	5,6817
Victims	4,2865	,28467	3,7634	4,8824
Cheaters	4,3144	,25179	3,8481	4,8373

Scale has been recoded from 1 to 7 to 0 to 6 (min:0; max:6)

Perceived Team Cohesion

		Mean Difference	Std. Error	df	Bonferroni Sig.	95% Wald Confidence Interval for Difference Lower	Upper
Cooperatives	Duals	-,4549	,52198	1	1,000	-1,8320	,9222
	Victims	,0173	,41018	1	1,000	-1,0649	1,0994
	Cheaters	-,0106	,38808	1	1,000	-1,0345	1,0132
Duals	Cooperatives	,4549	,52198	1	1,000	-,9222	1,8320
	Victims	,4722	,51603	1	1,000	-,8892	1,8336
	Cheaters	,4443	,49864	1	1,000	-,8713	1,7598
Victims	Cooperatives	-,0173	,41018	1	1,000	-1,0994	1,0649
	Duals	-,4722	,51603	1	1,000	-1,8336	,8892
	Cheaters	-,0279	,38004	1	1,000	-1,0306	,9747
Cheaters	Cooperatives	,0106	,38808	1	1,000	-1,0132	1,0345
	Duals	-,4443	,49864	1	1,000	-1,7598	,8713
	Victims	,0279	,38004	1	1,000	-,9747	1,0306