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# Diplomarbeit

## An Experimental Approach towards the Role of Obedient Behavior within Organizational Corruption

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## Index

<b>Abstract</b> .....	p. 4
<b>1. Introduction</b> .....	p. 6
<i>Towards a dynamic approach to organizational corruption</i> .....	p. 9
<i>The escalation on an individual level</i> .....	p. 10
<i>The escalation on an organizational level</i> .....	p. 13
<i>The socialization into corruption through an authority's order</i> .....	p. 13
<i>The internalization of corrupt acts</i> .....	p. 15
<i>Cognitive Dissonance</i> .....	p. 17
<i>The role of the self and societal norms in the arousal of dissonance</i> .....	p. 18
<i>Reduction of dissonance</i> .....	p. 20
<i>Dissonance and the societal norm of obedience to authorities</i> .....	p. 21
<i>Dissonance reduction through rationalization and the escalation of behavior</i> .....	p. 21
<i>Overview of the present study</i> .....	p. 23
<i>The conflict</i> .....	p. 23
<i>Phases of the experiment</i> .....	p. 24
<i>Dependent Variables</i> .....	p. 24
<i>Amount of protest</i> .....	p. 24
<i>Termination</i> .....	p. 25
<i>Internalization</i> .....	p. 26
<i>Affectivity</i> .....	p. 26
<i>Independent Variables</i> .....	p. 26
<i>Mode of disbursement</i> .....	p. 26

<i>Personality Factors</i> .....	p. 27
<i>Hypothesis</i> .....	p. 28
<b>2. Method and Results</b> .....	p. 34
<i>Participants</i> .....	p. 34
<i>Procedure and Design</i> .....	p. 34
<i>Results</i> .....	p. 38
<i>Descriptive Results</i> .....	p. 38
<i>Results of Hypothesis Testing</i> .....	p. 38
<b>3. General Discussion</b> .....	p. 55
Limitations.....	p. 58
Conclusion.....	p. 59
<b>4. References</b> .....	p. 62
<b>5. Appendix</b> .....	p. 66
<b>6. Curriculum Vitae</b> .....	p. 69

## Abstract

Since the well publicized scandals of Enron and WorldCom, research on the phenomenon of organizational corruption has focused on understanding and explaining the dynamic processes inherent in this complex problem. In this regard, socialization processes have been identified through which an individual is induced to first engage in corrupt behavior. One such way of socialization is when a first corrupt act is explicitly ordered by an authority figure. Once an initial corrupt act has been performed, a dynamic, incremental process between corrupt acts and rationalization has been postulated by several researchers, such as Lowell (2011) in his model of self-justification. In this process of escalation, the initial act subsequently increases in severity and ease. On an individual level, the present study attempts to experimentally find and examine this escalating process between rationalization and negative acts, which are ordered by an authority figure. Therefore, 88 participants were tested in a role play where they were asked to function as an “accountant” and administer a defined amount of money to another person that had to solve several mental arithmetic tasks. However, contrary to the originally established instructions, which clearly stated that the money had to be paid out for correct answers only, the experimenter suddenly ordered the participant to pay out the money, even though a wrong answer was given. Together with dissonance theorists (Aronson, 1968; Thibodeau and Aronson, 1992), it is argued that this creates a conflict, which arouses dissonance by leading the individual to perform an act that contradicts his sense of being a competent and consistently acting individual, and that therefore is inconsistent with the self-concept. In order to reduce this dissonance, rationalization of the act can render it acceptable. However, this increased acceptance leads to lower amounts of protest against a second, more severe demand of the act, and subsequently to its internalization- the performance of the act, even when the authority is absent. In general, results revealed that 14 % disobeyed the order, 43 % obeyed the order, but expressed a constant amount of protest and refused to internalize it, and 43 % of participants internalized the act. For participants who internalized, an escalation of behavior was found: while severity incrementally increased, their resistance against the act simultaneously decreased throughout the experiment. Moreover, in two different conditions, the amount of money increased either linearly or exponentially in order to examine the effect of severity of the act. Results indicated that, for these participants, rationalization was indeed the psychological ‘engine’ of this escalation, as higher severity of the act paradoxically led to lower amounts of protest, which can be explained by stronger rationalization, adapting to the act’s severity. Accordingly, participants who internalized the demand also revealed a more positive affectivity than other participants, by stating a higher

satisfaction after the experiment, which indicates a more successful reduction of dissonance. Finally, while the average amount of protest was moderately associated with the personal tendency to behave submissively towards authority figures, there was no association with any personality trait of the Big-Five. Hence, the present study confirms the theoretical assumptions regarding the escalating effect of dissonance reduction through rationalization, and it shows that this escalation can be triggered by obedient behavior towards an authority figure.

## 1. Introduction

The phenomenon of organizational corruption is both, ancient and ongoing, and has a tremendous importance in modern society. For example, “*the World Bank has singled out corruption as the largest obstacle in economic and social development*” (Aguilera and Vadera, 2007, p. 432). Accordingly, the U.S department of justice emphasized the negative impact of organizational corruption by stating that the economic costs, stemming from organizational crimes, are up to 25 times higher than those stemming from street crime (Aguilera and Vadera, 2007). In addition, besides the economic consequences, corporate misdeeds also severely damage society’s trust in its institutions and organizations (Ashfort and Anand, 2003).

For instance, according to the newspaper “Der Standard”, corrupt practices in Austria, such as bribery and the gain of illegitimate advantages, increased throughout recent years, and are estimated to cost the state 27 billion Euros in 2012. Besides these direct economic costs, the increase in corruption also leads to lower investments, as honest companies are discouraged, and to a loss of specialized workers, who flee the unappealing working conditions (“Der Standard,” 2012). In 2009, a new Austrian anticorruption law became effective, as the previous law was criticized for being too vague and not accurate enough. The new law differs between crimes in the private and the public sector, whereas, in general, embezzlement, bribery, and the acceptance of gifts from private potentates or attendants are seen as offences in the private sector, and, on the other hand, violations of duties, such as bribability or the arrangements of bribery, interventions and acts against prohibitions, and the demand for illegitimate advantages are seen as delinquencies in the public sector, committed by officials. However, the new law still evokes criticism, as, for example, the definition of the term “officials” is somewhat problematic. For example, a member of parliament is only seen as “official”- and thus affected by the law’s regulations and policies- when he or she gives his or her vote in parliamentary polls. In the private sector, but also in the public sector, sentences for corruption vary from three month up to ten years of imprisonment, depending on the financial damage caused by it and the specific type of criminal practice. For example, while the maximum sentence for bribery is ten years, it is only five years for illegitimate gains of advantages (Schuschnigg, 2010).

Accordingly, in 2010, Austria was criticized by the OECD due to the lack of rigorous anticorruption rules for government and semi-government organizations. The country was blamed for applying less rigorous policies from the private sector to such government

organizations, instead of the rules the OECD has demanded. Thus, corrupt practices were facilitated by lax anticorruption policies (“Der Standard”, 2010). A prominent example is the BUWOG case, a real estate firm with government links, which was reported in “Die Zeit”, a weekly German journal. During the privatization of 62.000 apartments in 2004, lobbyist Peter Hochegger and Walter Meischberger, who was a member of the federal council and a member of parliament, received commissions close to ten million Euros without providing any obvious effort whatsoever (Kraske, 2011).

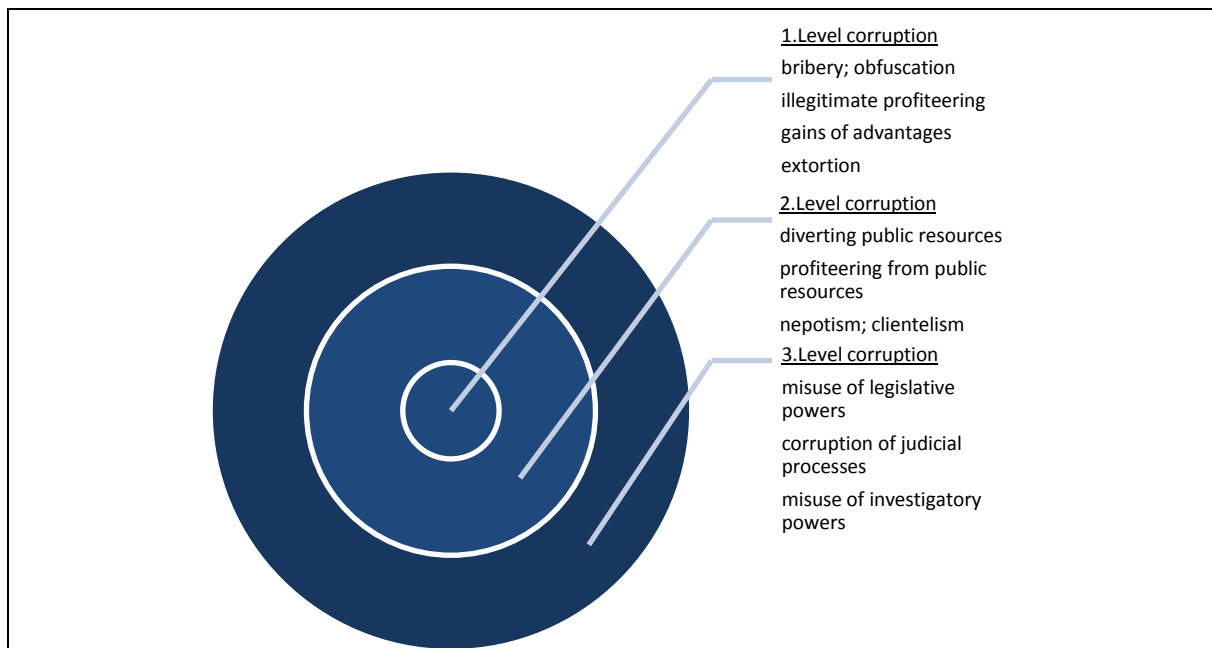
However, the problem of organizational corruption is not restricted to certain countries, instead, unethical practices within international organizations and corporations nowadays seem commonplace (Tenbrunsel and Messick, 2004). Two of the most prominent international cases of organizational corruption in recent time were the scandals of Enron and WorldCom. In 2001, Enron, a multinational energy corporation- and the seventh largest corporation in the US- collapsed due to massive forms of fraudulent activity. Enron developed a highly complex business model that incorporated numerous products and exceeded national borders, but that also “*stretched the limits of accounting*” (Healy and Krishna, 2003, p. 9). While being hyped as America’s most innovative company, its actual financial performances were problematic (Healy and Krishna, 2003). For example “*Enron invested \$ 1.2 billion in fiber-optic capacities and trading facilities, but the telecommunication broadband market collapsed. Furthermore, it could never generate adequate profits from energy trading in markets, such as metals, to cover the billion dollar mistakes*” (Petrick and Scherer, 2003, p.38). By systematically withholding information about losses and providing false information about the company’s profits, the company managed to conceal its true financial performance and its problematic financial situation and thereby deceived its stakeholders and the public. Enron was still able to attract large sums of capital by concealing their actual performance and artificially inflating their assets, however, eventually the Securities and Exchange Commission (SEC) started to audit Enron as the company failed to provide sufficient evidence for the claimed earnings, which subsequently uncovered the accounting scandal. In general, both former CEO’s, Ken Lay and Jeff Skilling, were mainly responsible for the scandal (Brickey, 2003). However, while Jeffrey Skilling currently serves a 24-year sentence in a Federal Corrections Facility, Ken Lay died before he was sentenced (Bajaj and Eichenwald, 2006).

However, the case of Enron was not an isolated incident. The scandal of Worldcom, the second largest telecommunication company in the US, was too a case of accounting fraud and

inflated income reports that led to losses of billions of dollars in shareholder values. As “*a major provider of internet services, which include Internet backbone, hosting, virtual private networks, and wholesale Internet service provider services*” (Sidak, 2003, p. 227), WorldCom falsely reported that internet traffic was doubling every one hundred days, in order to “*exaggerate the value of its stocks*” (p. 230). This reported growth rate naturally attracted investors and encouraged overinvestment (Sidak, 2003). At the same time, the company inflated its income by taking \$400 million out of the accounting departments account and reported it as company’s earnings. Eventually, Cynthia Cooper, Vice President for Internal Auditing, “*sought to expose and correct a massive accounting fraud*” (Brickey, 2003, p. 369). WorldCom’s CFO, Scott Sullivan and Buford Yates, the Director of General Accounting, both were charged with several accusations, including fraud and conspiracy. But also several subordinates were indicted, who later all stated that they were acting on order from superiors and senior management (Brickey, 2003).

Hence, regarding organizational corruption, together with Voliotis (2011), it can be stated “*that the phenomenon is systemic, large scale, enduring and important*” (p. 537). Generally, there are countless manners of corrupt behavior, as organizational corruption can be referred to as any “*deviant behavior that manifests itself in an abuse of a function [...] on one’s own or the other’s initiative in order to achieve an advantage for oneself or a third party*” (Rabl, 2011, p. 85). Other definitions of organizational corruption are similarly loose. For example, Anand, Ashfort and Joshi (2004) defined corruption as a “*misuse of an organizational position or authority for personal or organizational (or subunit) gains, where misuse in turn refers to departures from accepted societal norms*” (p. 40). However, Karklins (2003) proposed a more specific typology of corruption based on its impact on the societal system. Based on this typology, Figure 1 illustrates the different types of corruption and their impact on the societal system.





*Figure 1.* Typology of different kinds of corruption, based on the impact on the societal system. (Karklins, 2003).

On a first, less far-reaching level, typical corruption includes such acts as bribery, obfuscation and lying, illegitimate profiteering or gains of advantages, and extortion. On a second level, there are corrupt acts such as diverting public resources, mismanagement and profiteering from public resources, nepotism, clientelism, and profiteering from privatization. At the third and highest level, corruption severely impacts state and public. Such corrupt acts include misuse of legislative powers, takeover of public institutions for private business or criminal activity, corruption of the judicial process, and misuse of investigatory powers (Karklins, 2003).

Moreover, as these examples show, deception seems to be a crucial factor for corrupt activities, because it is either used to cover up other acts of corruption, such as environmental pollution and bribery, or, on the other hand, deception itself is the main corrupt act, for example by withholding true information- like performance troubles- or by providing false information- like blown up financial performances- to shareholders, as was the case in the Enron and the WorldCom scandals (Fleming and Zyglidopoulos, 2008).

*Towards a dynamic approach to organizational corruption*

Despite the magnitude and severity of this phenomenon, until recently, theory and research that attempted to understand and explain the problem of organizational corruption primarily had been static, focusing mostly on single factors- for example, on individual or on organizational factors- but felt short of acknowledging and integrating the dynamics that

evolve between the different factors. Both, the Enron and the WorldCom case initiated research on organizational corruption within the field of business ethics, which sought to include different factors and, most importantly, the dynamic processes evolving between them (Nieuwenboer & Kaptein, 2007).

Anand, Ashfort and Joshi (2004) postulated such a dynamic model based on their analysis of several cases of organizational corruption. Their analysis, which included the cases of Enron and WorldCom, revealed “*disturbing features [...] these and many other corruption cases*” (p. 39) had in common. First, corrupt practices were not the actions of single, independently acting individuals, but instead were embedded in a broader organizational context, and therefore involved numerous employees and co-workers who were cooperating. Second, they found that it typically were upright citizens engaged in cases of corruption in organizations: „*Most such acts were committed by individuals, who were upstanding members of the community, caring parents, and givers to charities- clearly different from the image of a typical criminal*” (p. 38). Third, a notable aspect was that these individuals did not view themselves as corrupt or unethical and denied the notion of being criminals. Fourth, corrupt practices were not single occurrences, but continued and prevailed over long periods of time. Finally, a fifth feature was found, which showed that new employees, who usually hadn't have been engaged in corruption before, adopted such practices when confronted with them in the new environment (Anand, Ashfort & Joshi, 2004). Most importantly, however, several researchers found an incremental process within cases of corruption, which led to an escalation of behavior, through which an initial corrupt act subsequently increased in its severity, ease and pervasiveness (e.g. Fleming and Zyglidopoulos, 2008; Anand, Ashfort and Joshi, 2004; Lowell, 2011).

#### *The escalation on an individual level*

In order to contribute to the explanation of these phenomena, Anand, Ashfort and Joshi (2004) postulated a dynamic model, as mentioned above. This model consists of two interacting and reinforcing general factors: rationalization and socialization. Individuals who engage in a corrupt act have a variety of tactics to rationalize their behavior, which means that they are “*describing their actions in such a way that they do not appear to be unethical at all*”, and thereby “*neutralize their negative feelings or regrets about their behavior*” (p. 40). This definition is widely shared, as for Tsang (2002), rationalization is a cognitive process, which aims at the reconciliation of behavior and the own crucial standards. Thus,

rationalization always serves the purpose to “*render the behavior psychologically acceptable or give it a psychological value it did not have [...]*” (Beauvois, 2001, p.217).

Rationalization can be achieved prospectively, for future actions, as well as retrospectively, for past actions. Either way, as we have seen, rationalization provides a way to perceive the behavior as justified, or at least as more justified. An example for such a rationalization is the general denial of responsibility for the action, or the denial that the act is injuring someone, as well as blaming the victim itself (Anand, Ashfort & Joshi, 2004).

While rationalization aims at justifying an act, the second factor-*socialization*- refers to a more general process, in which rationalization is embedded, and that “*involves imparting to newcomers the values, beliefs, norms, skills, [...] they will need to fulfill their roles and function effectively within the group context*” (Ashfort and Anand, 2003, p. 25). Thus, socialization describes the external forces through which an ethical individual can be initially induced to adopt corrupt behaviors. As Baucus (1994) suggested in this regard, “*corporate culture may encourage illegality by creating conditions that predispose employees to commit wrongdoing. Shared values, norms and beliefs can influence an otherwise moral individual to engage in questionable or illegal activities*” (p. 712). Accordingly, within a corrupt environment, a newcomer eventually will be confronted with corrupt beliefs, values and behaviors. If this person has not been socialized into corruption before, for example in his or her prior job, this will create a relatively intense pressure, which subsequently will lead the individual to either leave the organization, or change his or her attitudes in order to accept the corrupt practices. The socialization of new employees therefore is essential for the fact that corruption prevails and continues during the course of time, as it induces newcomers to go along with it (Anand, Ashfort & Joshi, 2004).

Based on Ashfort and Anand (2003), the model identifies three ways- or “*avenues to corruption*” (p. 27)- in which processes of socialization lead the individual to first adopt corrupt practices. The first way of socialization into corruption is cooptation, a process through which individuals are led to accept corrupt actions by external rewards. For example, a finance broker might falsely advertise a certain offer as the best investment because it is associated with a high commission. Accordingly, a contract researcher might subtly manipulate his results in a way that is favorable to the sponsor (Ashfort and Anand, 2003). Accordingly, Stieglitz (2010), who analyzed factors contributing to the financial crises in 2007/8, consequently found problems regarding certain compensation systems, such as stock options and bonus schemes, where executives profit from gains but are not tangent to losses

and that therefore enhance and motivate excessive risk taking. Moreover, such ubiquitous elements of financial markets also “*encouraged the provision of misleading information*” for example “*by increasing reported income*” (Stieglitz, 2010, p. 19).

The second manner of socialization into corruption is compromise, through which individuals seek to solve conflict situations or dilemmas within the organizational context that seem to be unsolvable in an ethically, non-corrupt way. For example, a case is reported in which “*a plant manager faced the dilemma of either venting fumes and smoke into the environment [...] or retain them in the plant and jeopardize the health of employees*” (Ashfort and Anand, 2003, p. 30). Because superiors were unwilling to solve this problem, the manager was led to violate the law, by polluting the environment, in order to solve this conflict (Ashfort and Anand, 2003).

Finally, there is a third mode through which individuals can be socialized into corrupt behavior, which is referred to as incrementalism, and that will be central for the present study, as we will see. Incrementalism refers to a process that is closely intertwined with rationalization. According to this notion, the performance of a first, slightly deviant and innocuous act subsequently causes an aversive state of psychological discomfort, which is referred to as cognitive dissonance- a construct, we will specify further below. In order to reduce this discomfort, the act is now rationalized, as this leads to justification and, thus, to acceptance of the act, as mentioned above. However, “*as the individual comes to accept this act as normal, he or she is introduced to another, more corrupt act, with its attendant rationalization. In this way, the individual climbs a ladder of corruption and is eventually engaging in acts, he or she would have previously rejected outright*” (Anand, Ashfort & Joshi, 2004, p. 45).

More recently, Zyglidopoulos Fleming and Rothenberg (2009) attempted to further clarify the factor of rationalization, in order to specify its dynamic interaction with the process of incrementalism. Accordingly, a rationalization does not precisely match or fit a certain act and its severity. Instead, they postulated an asymmetrical relationship between a corrupt act and its rationalization. This means that rationalization is usually not “*fine grained*” but instead “*goes far beyond what is actually required*” (p. 69) in order to justify behavior. For example, within the case of WorldCom, they found that relatively mild acts had been rationalized by stating that “*we do this to save a great firm*” (p. 69). Therefore, this over-rationalization does not only justify the initial act, but exceeds it, and thus, has an impact on future actions. As assumed, this is the case because now “*more severe and serious forms of corruption*” are

facilitated “*by the very fact that a justification is already available*” (p. 70). Subsequently, when indeed another, more severe act is performed due to this facilitation, this will, in turn, trigger “*a more grandiose justification and so on*” (p.70). For example, in the WorldCom case, it was found that the primary rationalization soon became stronger by stating that “*we do this to save our great economy*” (Zyglidopoulos, Fleming & Rothenberg, 2009, p.69).

#### *The escalation on an organizational level*

In addition, according to Fleming and Zyglidopoulos (2008), this process of incrementalism- which they referred to as an escalation of behavior, because through such a process the initial act can subsequently increase in its severity, ease and pervasiveness- does not only have an effect on an individual level, but also evolves from the individual and group level to an organization-wide phenomenon. According to their assumptions, when severity of deception increases, it also begins to spread within the organization. This is because the initial deceit eventually exceeds the control of the individuals involved and thus, requires other people to get involved. By spreading in a way that requires more and more people to engage in deception, the initial act eventually becomes an organizational level deception. However, several organizational factors were proposed, which interact with this process and can amplify as well as hinder it. Most importantly, the factor of organizational complexity, which refers to “*a significant level of differentiation and specialization within the organization*” (p. 842), has an amplifying effect on the escalation. For example, most “*participants in the WorldCom case knew that the company was in serious trouble, but the labyrinthine complexity of the deceit divided the everyday process of lying into less alarming acts*” (p. 842). On the other hand, this process could be halted from spreading throughout the organization by effective control systems that detect such acts, for example by internal audits. Moreover, integrated and incorporated ethic codes within the organization could impede the involvement of other employees, and thus, deceit could be hindered from prevailing because such ethic codes could entail a lack of incentives or difficulties to rationalize the act. Thus, the incremental process of escalation can, in interaction with external, organizational factors, become an institutionalized phenomenon (Fleming and Zyglidopoulos, 2008).

#### *The socialization into corruption through an authority's order*

Generally, the described interaction between incremental socialization processes and rationalization, which can subsequently lead to an escalation of corrupt practices on an individual, but also on an organizational level, contribute to the understanding of the features

Anand, Ashfort and Joshi (2004), as well as other researchers (e.g Zyglidopoulos, Fleming & Rothenberg, 2009) had found to be commonly associated with several cases of organizational corruption. First, the notion of an incremental escalation of corruption, which spreads throughout the organization, can explain why these acts were not isolated incidents, but embedded in a broader organizational context, and continued and prevailed over long periods of time. Second, the specific interaction between socialization processes, such as incrementalism, and rationalization tactics can contribute to the explanation of why it often were upright citizens engaged in cases of corruption. The rationalization and its subsequent justification of behavior can also explain why these individuals did not view themselves as corrupt. Finally, socialization processes can explain how new employees, who hadn't have been engaged in corruption before, adopted such practices when confronted with them in the new environment (Anand, Ashfort & Joshi, 2004).

The three general ways of socialization- cooptation, compromise, incrementalism-, in which an individual can be induced to first engage in corrupt behavior, are closely intertwined and interacting. For example, a newcomer might decide to perform a slightly deviant and innocuous act because he or she is forced into a compromise situation, in which an external demand, for example from veteran co-workers or a supervisor, contradicts the own views regarding right behavior. In order to avoid negative consequences stemming from contradiction and disobedience, such as omitted rewards, for example by being denied a promotion, the newcomer decides to comply. The following performance of such an act, however, subsequently triggers rationalization, and, as a result, can initiate the described process of incremental escalation (Ashfort and Anand, 2003).

As this example illustrates, regarding the reasons an individual decides to first engage in a corrupt act, there is another critical factor. Brief, Buttram and Dukerich (2001) stated that corruption can be initiated by sanctioned corruption, which means that a corrupt act is officially endorsed or condoned. This sanctioned corruption can be achieved explicitly, in a direct manner, or implicitly, in an indirect manner. *“A direct order to engage in a corrupt practice represents explicit sanctioning; and, the creation of a corporate climate emphasizing results without regard to means is an example of implicit sanctioning”* (p. 472). Accordingly, a first act of wrongdoing can be *“officially ordered or condoned”* (p. 472) by an authority figure (Brief, Buttram & Dukerich, 2001). Thus, a situation as described in the previous example could, for instance, occur if *“a manager casually suggests that a subordinate lie to a client”* (Ashfort and Anand, 2003, p. 32).

However, the question regarding newcomers is, “*why might they comply*” (p. 476) to such an order? (Brief, Buttram & Dukerich, 2001). An answer could be provided by the findings of Stanley Milgram, who literally managed to “*shock the world*” (Blass, 2004, p. x) in his 1974 experiment regarding obedience to authority. He found that presumably normal individuals could be led to inflict painful and dangerously high electric shocks to another person, when ordered to do so by an authority figure (Blass, 2004). Participants, who were told to play a “teacher”, were ordered to administer such an electric shock after each incorrect answer given by a “student”, who was really a confederate of the experimenter, with gradually increasing severity- from 15 volts to 450 volts. The participants were told that the purpose of this was to examine the impact of punishments on learning. In reality, however, “*the aim of this investigation was to find when and how people would defy authority [...]*” (Milgram, 1974, p. 4). However, 65 % of Milgram’s participants, which were all ordinary and upright individuals, didn’t defy the authority at all, but instead behaved obediently throughout the entire experiment (Milgram, 1974). Accordingly, Zimbardo (1974) noted that Milgram’s studies made the world realize that „*evil deeds are rarely the product of evil people acting from evil motives, but are the product of good bureaucrats simply doing their job*“ (p. 566).

In accordance with Milgram’s finding, Brief, Buttram and Dukerich (2001) noted that “*a capacity for obedience to hierarchical authority is bred into the organism [...]*” (p. 478). Thus, regarding organizational corruption, they suggested that the nature of the hierarchical relationship between superior and subordinate within organizations is crucial in order to answer the question why an individual decides to comply with the order to behave corruptly. As they postulated, the individual behaves obediently, because the authority figure is perceived as legitimate, since it holds the power to punish disobedience but also to reward obedience, due to this hierarchical structure. Hence, an individual could decide to comply with the order, and perform the first corrupt act of the incremental process, simply out of obedience to an authority figure (Brief, Buttram & Dukerich, 2001).

#### *The internalization of corrupt acts*

In accordance with the notion of escalation of corrupt practices throughout the organization, described above, Brief, Buttram and Dukerich (2001) postulated another important feature that contributes to the explanation of how corruption can become institutionalized, which means the “*the collective wrongdoing becomes part and parcel of everyday organizational life*” (Brief, Buttram & Dukerich, 2001, p. 473). An essential requirement for the incremental escalation of corruption, both, on an individual and on an institutional level, is the process of

internalization, because once an act is internalized, it will be “*reframed as moral and positive*” (Lowell, 2011, p. 22), and perceived as acceptable. Internalization is the result of rationalization and justification of the own wrongdoings, through which the attitudes are brought into line with the demanded act, in order to match the own behavior. However, this means that once the deviant practices are internalized, and there is a consistency between attitudes and behavior, there is no need for further orders by an authority figure, because compliance will continue automatically. Hence, through the process of “*internalization, new inhabitants of corrupt organizations themselves become corrupt, thus perpetuating a culture for ethical deviance and the wrongdoings this culture has produced*” (Brief, Buttram & Dukerich, 2001, p. 488).

So far, we have seen that within a more complex and dynamic approach to the understanding and explanation of corruption, an individual can be socialized into corruption in various, closely interacting ways. For example, a first, slightly deviant act can be explicitly ordered by an authority figure. Moreover, we have also seen that a dynamic process between rationalization and corrupt acts is postulated. This process is theorized to contribute to the fact that, within numerous cases of organizational corruption, corrupt deeds incrementally escalated- both, on an individual and an organizational level- by becoming increasingly severe and increasingly easy to perform. Figure 2 illustrates a simplified schematic integration of the models described above.

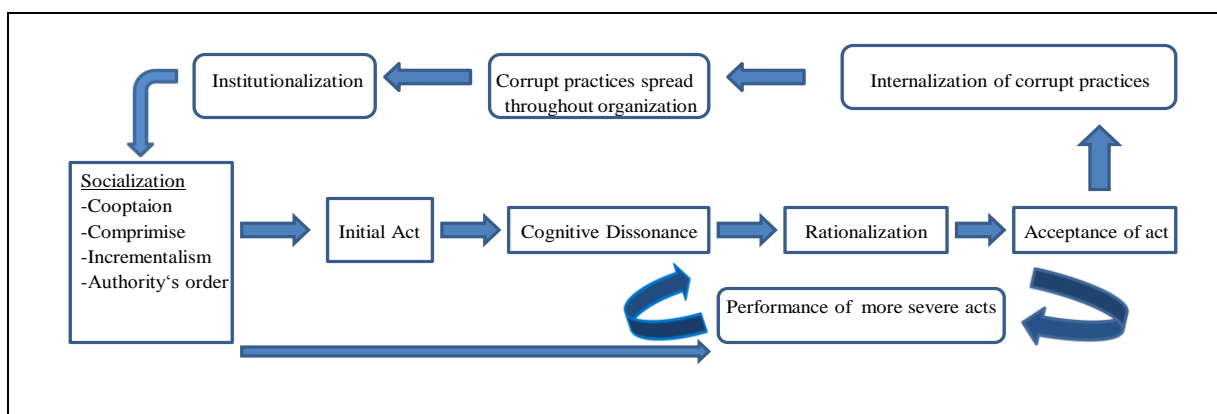


Figure 2. The process of incremental escalation of a corrupt act from the individual to the organizational level. (Ashfort and Anand, 2003; Brief, Buttram & Dukerich, 2001; Anand, Ashfort & Joshi, 2004; Zyglidopoulos, Fleming & Rothenberg, 2009; Fleming and Zyglidopoulos, 2008).

The escalating dynamic, illustrated in Figure 2, is explained by the underlying rationalization of a relatively innocuous but dissonance arousing act, which is initially performed due to socialization forces, for example an authority figure’s demand. The rationalization



subsequently justifies the act and renders it more and more acceptable. On the one hand, this leads to the act's internalization, which means that the original attitude towards it has been altered, and the act is now performed without direct external pressure. On the other hand, once the initial act has been rationalized and psychologically accepted, this facilitates the performance of further such acts, even if severity increases. Once the corrupt practices have reached a certain severity, other participants are required to engage in these activities, as they exceed the control of a single employee. Hence, corruption spreads throughout the organization, so that, eventually, it will be institutionalized. This will, in turn, enhance socialization processes that induce newcomers to again perform such an initial act (e.g. Ashfort and Anand, 2003; Brief, Buttram & Dukerich, 2001; Anand, Ashfort & Joshi, 2004; Zyglidopoulos, Fleming & Rothenberg, 2009; Fleming and Zyglidopoulos, 2008).

The present study attempts to observe such an escalation as a result of obedient behavior, since, in the experiment, several unjustified gratifications are demanded by an authority figure. In regard to the typology of corrupt practices mentioned above, the negative act that is performed in this study can be compared to acts on the first level of corruption, such as illegitimate profiteering or gains of advantages. The present study also aims at further investigating and understanding the psychological groundwork of this escalation process by clarifying the role of rationalization.

However, in order to achieve these goals, it is imperative to illuminate the concept of cognitive dissonance first, which was already mentioned further above. This is because, as Figure 2 shows, the arousal and reduction of cognitive dissonance is assumed to be the crucial psychological mechanism, underlying the process of incremental escalation, as it explains the urge to rationalize and justify the negative behavior, which subsequently leads to its acceptance and internalization, and that triggers the described process of escalation (Lowell, 2011).

In order to contribute to the understanding of corruption, it is such a dynamic process of incremental escalation, defined as an increase in severity of an act with a simultaneous decrease of resistance against it, the present study aims at experimentally finding on the individual level.

### *Cognitive Dissonance*

In 1957, Leon Festinger first defined dissonance as an aversive, intrapersonal state of psychological discomfort, which is created „*when an individual holds two or more elements*

*of knowledge that are relevant to each other but inconsistent with one another*” (Harmon-Jones and Harmon-Jones, 2007, p 7). For example, if a person participated in an extremely dull experiment and is induced to report to another person that it was actually a really interesting study, dissonance will arise, because the two elements of knowledge- or cognitions- “I know the task is very dull” and “I reported it was interesting” are inconsistent with one another. Therefore, within the person a discrepancy arises between behavior (saying it was interesting) and its opinion or attitude (thinking it was dull). This discrepancy subsequently causes dissonance (Kenworthy, Miller, Collins, Read & Earleywine, 2011).

Furthermore, Festinger described dissonance as a motivational state, which drives people to implement strategies and tactics to reduce the perceived discrepancy that caused the dissonance (Elliot and Devine, 1994). “[...] *being psychologically uncomfortable, will motivate the person to try to reduce dissonance and achieve consonance*” (Festinger, 1957, p. 3). In the given example, the person could now reevaluate the task in order to achieve consonance between the cognitions and hence reduce dissonance: “*On reflection, the task is actually more interesting than I first thought.*” (Kenworthy, Miller, Collins, Read & Earleywine, 2011, p. 37). Festinger posited that the reduction of dissonance can generally be achieved in three main ways: a) by modifying one or more of the inconsistent elements, for example an attitude or a behavior, b) by adding new elements that are consonant and therefore reduce the perceived discrepancy, and c) by minimizing or trivializing the importance of one or more dissonant elements (Gosling, Denizeau & Oberlé, 2006).

#### *The role of the self and societal norms in the arousal of dissonance*

During the course of time, three main revisions have been proposed by Aronson (1968), Steele (1988) and Cooper and Fazio (1984) (Harmon-Jones and Harmon-Jones, 2007). Two of the revisions, Aronson’s self-consistency theory as well as Steele’s self-affirmation theory, posit that dissonance is aroused by a behavior, which is inconsistent with the persons self-view and therefore poses a threat to the self-concept (Stone and Cooper, 2001). The self-concept can be defined as a cognitive schema that holds concrete as well as abstract knowledge about the self and therefore controls the processing of self-relevant information (Campbell, 1990). Moreover, as Heine et al. (1999) stated, it is a generally accepted fact in social psychological research that a person strives to have a positive self-view and with that a positive sense of him- or herself. Therefore, “*since most people have a positive self-concept, dissonance is most often experienced when people behave negatively, behaving in an incompetent, irrational or immoral manner*” (Harmon-Jones and Harmon-Jones, 2007, p. 9).

Or, as Aronson (1992) summarized: “*What leads me to perform dissonance-reducing behavior is my having done something that a) astonishes me, b) makes me feel stupid, or c) makes me feel guilty.*” (p. 305).

Generally, self-consistency theory (Aronson, 1968), as well as self-affirmation theory (Steele, 1988) both state that the own behavior is evaluated by comparing it to the self standards and self beliefs, represented in the self-concept. However, for Aronson, a feeling of threatened self-consistency is the central aspect of dissonance arousal. This threat is caused by an inconsistency between behavior and one’s self-views or self-expectancies. On the other hand, Steele proposes a more general threat of self-integrity or self-worth to be the main aspect and the source of dissonance (Kenworthy, Miller, Collins, Read & Earleywine 2011).

Contrary to that, the New Look theory by Fazio and Cooper- the third major revision- posits that the act is evaluated by comparison to socially accepted norms or normative standards of behavior, and therefore the self is irrelevant for the dissonance process. Accordingly, dissonance is aroused when the own behavior violates societal norms that are perceived as relevant, and thus, the own behavior is rendered socially unwanted or unacceptable (Stone and Cooper, 2001). “*The assumption is that people learn as children to monitor the fit between their actions and what their parents and peers believe is appropriate behavior- the perceived norms of behavior.*” (p. 3).

However, all theories agree that if a discrepancy between the shown behavior and a crucial standard is detected, dissonance is aroused (Harmon-Jones and Harmon-Jones, 2007). Since there is a great amount of research that confirms each revision (e.g. Harmon-Jones and Harmon-Jones, 2007, Kenworthy, Miller, Collins, Read & Earleywine, 2011), Stone and Cooper (2001) attempted to unify the three major revisions into their *Self-Standards Model of Cognitive Dissonance*, by stating that the crucial aspect of the arousal and reduction of dissonance is the standard used to evaluate and interpret the behavior. According to this model, the applied standard can be both, personal or normative, and hence determines the role of the self in the dissonance process.

If we look at the sort of behavior, which can be observed in cases of corruption, from a dissonance-theoretical perspective, it now becomes clear that the actors are highly likely to experience dissonance after they first are led to engage in corrupt and deviant behavior. As we already saw, these actors are ordinary, upright and lawful people. Consequently, their act is likely to contradict the expectations they hold about themselves and their behavior, and

therefore, dissonance is aroused (Thibodeau & Aronson, 1992). As Lowell (2011) adds in respect to cases of corruption, one can assume high levels of dissonance due to “*the absence of sociopathic traits.*” (p. 20).

### *Reduction of dissonance*

As we have seen, dissonance is a state of psychological discomfort, but it is also highly motivational, because it drives people to seek and apply tactics and strategies to reduce this aversive state (Elliot and Devine, 1994).

However, dissonance is not always experienced on an equal level. Instead, the level of experienced dissonance is dependent on the magnitude of the perceived discrepancy. Furthermore, this discrepancy is a function of the relation between inconsistent and consistent cognitions, together with the importance of each cognition. Thus, dependent on the cognitions an individual holds- both inconsistent and consistent- dissonance will vary in its magnitude. As a consequence, the need and striving to reduce the perceived dissonance will vary in its strength along with the magnitudes of dissonance (Cooper, 2007). “*The strength of the pressure to reduce the dissonance is a function of the magnitude of the dissonance.*” (Festinger, 1957, p. 18). Consequently, “*the higher the levels of dissonance, the stronger the drive will be to reduce or eliminate it.*” (Lowell, 2011, p. 18).

The reduction of dissonance can be achieved by a large number of actions and strategies that can be separated into two overall categories. First, there are direct strategies, which reduce dissonance by directly reducing the experienced discrepancy between behavior and cognitions (Stone, Wiegand, Cooper & Aronson, 1997). This can be achieved by changing an attitude, a value, or an opinion, as well as adding one or more cognitions that reduce the perceived inconsistency directly. Also, the inconsistency can be reduced directly by trivializing its importance (Simon, Greenberg & Brehm, 1995).

Second, there are indirect strategies, which reduce dissonance but leave the discrepancy intact. “*These include misattributing the discomfort to something other than the discrepancy or reflecting on other valued aspects of the self.*” (Stone, Wiegand, Cooper & Aronson, 1997, p. 54). Likewise, individuals can engage in any sort of distraction or, for example, consume alcohol. These modes of dissonance reduction are unrelated to the discrepancy itself that caused dissonance (Stone, Wiegand, Cooper & Aronson, 1997).

The choice of a specific mode of dissonance reduction seems to be depended on multiple factors, such as the importance of the threatened self-cognitions or the circumstances of the behavior. Hence, *“people have a tremendous flexibility when it comes to selecting a strategy for dissonance reduction.”* (p. 54). However, if both routes of dissonance reduction – direct and indirect- are available to the individual, there is a tendency to confront the dissonance arousing discrepancy directly (Stone, Wiegand, Cooper & Aronson, 1997).

#### *Dissonance and the societal norm of obedience to authorities*

As we have seen above, regarding the circumstances in cases of organizational corruption, the power of authority plays an important role. For example, Anand, Ashfort and Joshi (2004) quote a manager who was involved in corruption and noted that *“[...] I just gotta do what the boss says.”* (p.42). As Milgram’s results demonstrate, it generally seems to be difficult for people to disobey an authority figure’s demand in the first place: *“Perhaps our culture does not provide adequate models for disobedience.”* (Milgram, 1965, p. 67). Similarly, Festinger argued that a change in behavior in order to reduce dissonance directly may not be possible *“simply because the new behavior may not be in the behavior repertoire of the person”* (Festinger, 1957, p. 26). Accordingly, Zimbardo (1974) criticized *„our mindless obedience to rules, to expectations, and to people playing at being authorities”* (p. 566), which make it so difficult for people to disobey and refuse an authority’s demand. In accordance with Cooper and Fazio’s New Look Model, these notions suggests that, within our society, disobedience against an authority figure seems to be a behavior that violates societal norms and standards, and thus is unwanted, rather unacceptable and, as a result, dissonance arousing.

Therefore, regarding the direct modes of dissonance reduction, it can be concluded that if altering the own behavior implies disobeying and contradicting an authority figure, there might be a general tendency to prefer to reduce dissonance by adjusting attitudes or opinions, which in turn provide a way to justify the demanded behavior, instead of changing the behavior itself. Moreover, the more an individual tends to accept and follow authorities and thus, the higher an individual’s tendency to be submissive to an authority figure’s demand, the stronger this preference should be in order to avoid contradiction and disobedience (Nicol, 2007).

#### *Dissonance reduction through rationalization and the escalation of behavior*

As we have seen, in a situation where one decides to exhibit an act which poses a threat to the self, for example because the only alternative would be to disobey an authority figure,

dissonance should be aroused. One mode to reduce this dissonance directly without changing the inconsistent behavior itself is to justify the performed act. As mentioned above, this justification can be achieved through processes of rationalization (Beauvois, 2001). Accordingly, as Aronson's theory posits, by rationalizing and justifying the discrepant behavior, a person is attempting to maintain or restore a sense of morality, competence and consistence in order to alleviate the perceived threat to the self (Kenworthy, Miller, Collins, Read & Earleywine, 2011).

This means that by rationalizing an inconsistent act, the perceived discrepancy between the act and the self-concept can be reduced with the self-concept remaining intact (Thibodeau & Aronson, 1992). However, this also means that the value attributed to an act will change as soon as the act has been rationalized, and that the justified act will further be experienced as more acceptable or less negative. As a consequence, if the act is demanded a second time, now resistance should be smaller than the first time because, after rationalizing it, the act should be perceived as more acceptable (Beauvois, 2001).

Moreover, if the act is demanded several more times with gradually increasing severity, the resistance should further and gradually decrease, because rationalization should occur after each act to the degree the actor feels dissonance due to the remaining perception of discrepancy between act and self-concept. As Staw (1976) stated, such a *"cyclical process [...] is due to a need to justify prior behavior"* through which *"a decision maker may increase his commitment in the face of negative consequences, and this higher level of commitment may, in turn, lead to further negative consequences."* (p. 29). Hence, rationalization of a dissonance arousing act *„[...] starts a process of entrapment- action, justification, further action- that increases our intensity and our commitment, and may end up taking us far from our original intentions or principles"* (Tavris, & Aronson, 2007, p. 34).

In accordance with these notions, Zyglidopoulos, Fleming and Rothenberg (2009) theorized that the dynamic process underlying organizational corruption is fueled by *"excessive rationalization"* (p.69) that *"allows the individual to justify past or future actions."* (p. 68). The escalation of behavior within the phenomenon of organizational corruption thus might be theoretically explained by the assumption that *"individuals facing cognitive dissonance 'rationalize away' deeds that [...] contradict [...] or are in conflict with their self-concept."*(p. 67).

### *Overview of the present study*

Before the study is described in detail further below, it is helpful to illustrate certain important features for better understanding.

#### *The conflict*

Generally, in order to find the escalation process empirically, we created a role play, in which participants were asked to play an “accountant” and agreed to comply with the written instructions, which were given to them together with a role description, and that clearly stated that gratifications, which increased for each task, were only to be paid out when the second participant- a confederate of the experimenter- successfully solved a calculation task.

During the experiment however, the experimenter suddenly and unexpectedly orders the “accountant” to disregard the instructions he or she had originally agreed upon, and hand out the money despite the wrong answer, which was given by the confederate. This demand creates a conflict because the participant is now left with two alternatives.

First, the participant could decide to obey the authority and exhibit the demanded act in order to avoid contradiction and disobedience, which, as we have seen, is something rather untypically and unwanted in our culture. This however, leads the participant to act in a manner which contradicts his or her behavior from prior in the experiment, as well as the instructions the participant had explicitly and openly agreed upon. Thus, performing the authority’s demand should generate a feeling of inconsistency and foolishness within the participant due to the discrepancy between the shown behavior and the own general sense of being a competent, principled and consistent acting individual. As a consequence of this discrepancy between behavior and self-concept, dissonance should be aroused.

Alternatively, the participant could decide to avoid such an act that should generate feelings of inconsistency and heteronomy- and therefore a negative, inconsistent sense of self. However, this implies refusal of the demanded act and, hence, disobedience against the authority figure. Since disobedience seems to be rendered rather inappropriate in regard to societal norms and standards of behavior, it should consequently arouse dissonance.

The general conflict can therefore be separated into an external one- contradicting and disobeying an authority figure- and an internal one- performing an inconsistent act that poses a threat to the self.

As we have stated further above in regard to the impact of authorities on modes of dissonance reduction, we assume that the majority of participants will preferably decide to engage in the internal conflict, instead of the external one. This, however, should lead a number of participants to justify the act through rationalization, which in turn is assumed to entrap them in a process of escalation that has been theorized to play an important role in organizational corruption.

### *Phases of the experiment*

Before the experiment is reported in detail, it is also important to note that the experiment can be separated into four different phases. As mentioned above, the amount of money, which was defined for each task, constantly increased from one task to the other, and therefore also from one phase to the other. Thus, the severity of the act constantly increased, with its low at the very beginning, and its peak at the very last task.

In the *beginning-phase*, there were a total of five conflicts arising. As we assume, during this phase, the inconsistent act should be reframed as acceptable by participants who rationalized it.

As a consequence, in the *second-phase*, the act should be internalized by participants who rationalized it. During this phase, the authority figure was physically absent and, hence, could not repeat the order. Therefore, in two occurring conflict situation (wrong answer given by the confederate) it was assessed whether the participant performed the act in the absences of the authority figure (internalization), or if the participants decided to act in accordance with the originally agreed upon rules, and gives no money for the wrong answer (non-internalization).

The *return-phase* was characterized by the reappearance of the authority figure. This phase consisted of one conflict, similar to those from the beginning-phase. Finally, in the *end-phase*, the confederate of the experimenter refused any effort whatsoever, to solve the calculation tasks. However, if necessary, the authority nonetheless repeated the order to pay the money. Thus, the two occurring conflicts in this phase were somewhat more extreme, because there was not only a wrong answer given, but no answer at all. The phases are illustrated in Figure 3, further below.

### *Dependent Variables*

*Amount of protest.* In order to find the theorized escalation of behavior, it was necessary to determine the strength of participants' disobedience throughout the experiment, because this



shows whether resistance against the demanded act decreased in the face of increasing severity. Therefore, we measured the amount of protest against the authority's demand for every occurring conflict (with exception of the conflicts in the second-phase, where the authority is absent and thus, no protest could be expressed).

Generally, there were four steps of increasingly urgent demands, in which the act was ordered by the authority figure. Once a wrong answer was given by the confederate, the experimenter formulated the first demand. Moreover, if the participant refused to obey the first order, a second, stronger demand was formulated. If again the participant refused to obey, a third, even stronger demand followed, and, if the third demand too was rejected by the participant, a fourth and final demand was formulated.

However, the very first demand was only formulated if the participant wanted to act according to the originally established instructions, and proceed to the next task without handing out any money, after a wrong answer was given. If, however, the participant already complied with the authority's demand, and paid out the money as soon as a wrong answer was given, naturally, the demand was not repeated. Following, the different steps from 0 to 4 are listed with their specific demands, which are formulated by the experimenter.

0: The participant performs the act without the authority having to demanding it again.

1. "Please hand out the money anyway!"
2. "It is important that you pay out the money anyway!"
3. "It is indispensable that you hand out the money!"
4. "You don't have a choice, you have to hand out the money!"

During the experiment, the experimenter assessed- on a paper in front of him- how many times he had to repeat the demand, till the participant decided to obey the order. In this way, the amount of protest was measured for each conflict. For example, if a participant obeyed the order after the second demand, the amount of protest was labeled "2" for that conflict. If he or she obeyed the order after the third demand, the amount of protest was labeled "3", and so on.

*Termination.* Moreover, we also assessed whether the experiment was terminated by the participant or not. If the participant disobeyed all of the four demands described above, he reached a fifth stage, at which the experiment was terminated. The experimenter accordingly

categorized each participant into “(0): participants who didn’t terminate” or “(1): participants who terminated” on a paper in front of him.

*Internalization.* As mentioned, the amount of protest against the order and termination of the experiment could only be assessed when the authority was present. In the second-phase, however, the authority was physically absent. In this second-phase, we therefore assessed whether participants internalized the demand or not. Hence, as mentioned, once a wrong answer was given by the confederate, it was assessed whether the participant performed the act and paid out the money, even when the experimenter was absent (*internalization*), or if he or she decided to act according to the originally established instructions (*non internalization*). This was assessed for each participant by the confederate on a paper in front of him. Thus, the confederate categorized each participant into “(0): participants who internalized” or “(1): participants who didn’t internalize”.

*Affectivity.* After the experiment, affectivity of participants was assessed. Participants described their affectivity on a bi-polar 7-point scale, we created. The affectivity was described by the location on a continuum between the two poles for each of the following five scales: *tens vs. relaxed, unsatisfied vs. satisfied, agitated vs. calm, nervous vs. placid, bored vs. interested.*

### *Independent Variables*

*Mode of disbursement.* In order to assess the effect of severity of the act on the amount of protest, we created two conditions, in which the modes of disbursement differed. In one condition, there was a linear mode of disbursement. The amount of money that had to be disbursed by the participant constantly increased with two Euros from one item to the next, so that there was an overall increase from four Euros to 40 Euros throughout the experiment. In the second condition, there was an exponential mode, in which the amount of money increased by an exponent of 1.25 from one item to the next. In this mode, there was an overall increase from one Euro to 90 Euros. The general amount of money, which had to be disbursed in the experiment, was similar in both conditions, with 418 Euros for the linear and 400 Euros for the exponential condition. However, in every conflict of the beginning-phase of the experiment, the amount of disbursed money is higher in the linear condition, while, for every conflict in the return- and end phase the amount is higher in the exponential condition. Thus, the severity of the act differs throughout the experiment between the two conditions. The different conditions are further illustrated in Figure 3 below.

*Personality Factors.* We also include variables regarding personality that may contribute to the willingness to behave obediently towards the authority figure and to the process of escalation.

*RWA.* The short-version of the RWA scale by Rattazzi, Bobbio and Canova (2007) was used in this experiment. It is based on the concept of Right-Wing Authoritarianism and consists of the two subscales of “authoritarian aggression and submission” and “conservatism”. While conservatism refers to the tendency to strictly adhere to conventional norms and values, authoritarian submission refers to the tendency of being uncritically submissive to authority figures. Authoritarian aggression, which is closely related to authoritarian submission, refers to the tendency to generate feelings of aggression towards norm violators. In total, the test consists of 30 items, with ten items for each of the three factors (Rattazzi, Bobbio and Canova, 2007).

*SDO.* The SDO-6 by Pratto et al. (1994), which consists of 16 items was also used. It measures the construct of Social Dominance Orientation that is based on Social Dominance Theory, and which refers to the tendency to accept hierarchies of dominance, in which society is structured and organized. According to the position within this hierarchy, a group of people is entitled to advantages (Nicol, 2007).

*BIG-5.* We included the Big Five questionnaire version by Satow (2011). It consists of five subscales. *Neuroticism* refers to a person’s tendency to be emotional labile and anxious, as compared to emotionally stable. *Extraversion* refers to a person’s tendency to be sociable, expressive and outgoing, as compared to being withdrawn into oneself. *Conscientiousness* refers to a person’s tendency to be thorough and conscientious. *Agreeableness* refers to a person’s tendency to be popular and prosaically, as compared to socially less adapted. *Openness* refers to a person’s tendency to be open-minded and eager to experiment, as compared to traditional and uncurious. In general, there are 50 items, with ten items for each personality trait (Satow, 2011).

Roccas et al. (2002) have examined each factor of the Big Five and its associations with different kinds of values. Accordingly, we are able to formulate assumptions regarding protest in our experiment and the five different personality traits further below.

## *Hypothesis*

In order to examine the data, participants were clustered into different groups, based on the assessment of termination and internalization, as described above. Therefore, three groups of participants emerged: Participants who internalized the demand, participants who didn't internalize the demand, and participants who terminated the experiment.

Based on the theoretical background and the description of the present study, the following hypotheses are derived:

### **H1.1: The average amount of protest will directly decrease during the experiment for participants who internalize the demand.**

According to our assumptions, internalization of the act is the result of rationalization processes. By rationalizing it, the participant should render the demanded act psychologically acceptable to an extent, which then leads him or her to perform the act even when there is no experimenter present who explicitly demands it. Consequently, there should be a decrease of protest during the beginning-phase of the experiment due to an increase of acceptance of the act. After the second-phase, when participants decided to perform the act without any direct demand, protest should further decrease. This is the case because severity of the act further increases and, therefore, rationalization should be used to further increase psychological acceptance of the act, which subsequently leads to lower protest. Thus, due to the effect of dissonance reduction through rationalization, which renders the demanded act psychologically acceptable, an escalation in behavior is assumed, that is, a decrease of protest in the face of increasing severity (e.g. Zyglidopoulos, Fleming & Rothenberg, 2009; Beauvois, 2001; Lowell, 2011).

### **H1.2 The average amount of protest will not directly decrease during the experiment for participants who do not internalize.**

We assume that the effect of directly decreasing protest in the face of increasing severity cannot be observed in this group. Since they decide not to internalize the demand in the second-phase, we argue that they do not render the act psychologically acceptable in the beginning-phase. Accordingly, we assume that within this group, no rationalization processes are used in order to reduce dissonance, as this would lead to an increase of the act's acceptance (e.g. Zyglidopoulos, Fleming & Rothenberg, 2009; Beauvois, 2001; Lowell, 2011).

As a consequence, we conclude that a decrease in the amount of protest cannot be found in the beginning-phase, prior to the second-phase. Moreover, this enduring resistance against the act, which is openly demonstrated, should reduce the perceived inconsistency between behavior and self-concept. While the demanded act should be perceived as inconsistent, resistance itself should be consistent with the own sense of self and thereby add a consistent cognition, which reduces the perceived discrepancy between behavior and self. Hence, the demanded act might be inconsistent and incompatible with self-concept, but by openly disapproving it, the participant behaves in a manner that should enable him or her to maintain a relatively positive self-concept of being a competent and consistent acting individual (e.g. Cooper, 2007; Simon, Greenberg & Brehm, 1995; Thibodeau and Aronson, 1992).

Consequently, after the second-phase, where participants refused to perform the act, protest should also not decrease in the return- and end-phase. This should be the case, because, contrary to the group of internalization, no rationalization is used that leads to higher acceptance of the act and to lower resistance in the face of increasing severity. Thus, in the overall experiment, the absolute amount of protest should not directly decrease (e.g. Zyglidopoulos, Fleming & Rothenberg, 2009; Beauvois, 2001; Lowell, 2011).

**H1.3: The average amount of protest during the beginning-phase, as well as the return- and end-phase will be higher for participants who don't internalize than for participants who internalize the demand.**

As we argue, participants who decided to perform the act in the second-phase, should show less protest in the beginning- phase due to the rationalization that led to the psychological acceptance needed for the decision to internalize the act.

Moreover, after performing the act even when the experimenter is absent, protest of participants who internalize should again be lower in the return- and end-phase, as compared to participants who don't internalize, because increasing severity of the act should subsequently trigger stronger rationalization that further reduces protest. Contrary to that, participants who don't internalize the demand should not render the act psychologically acceptable throughout the experiment, as we assume, and, accordingly, express this refusal of acceptance by protesting against it. Thus, protest within this group should be higher than in the other group of participants (e.g. Zyglidopoulos, Fleming & Rothenberg, 2009; Beauvois, 2001; Lowell, 2011).

### **H2.1 The average amount of protest for participants who internalize will be lower in the beginning-phase of the experiment when there is a linear mode of disbursement.**

The higher the severity of an inconsistent act- in our case the disbursed amount of money- the stronger the need to justify it should be. As we have seen, this is the case, because the perceived discrepancy between act and self-concept should increase together with the act's severity. This is because the act is perceived as an inconsistent cognition, which becomes more relevant as it becomes more severe. Accordingly, the increasing discrepancy should result in higher magnitudes of dissonance. The magnitude of perceived dissonance should in turn lead to a corresponding strength of rationalization, since stronger rationalization is needed to reduce greater discrepancies between behavior and self. Subsequently, the stronger the rationalization of the act, the greater its acceptance should be and thus, the weaker the protest. In the beginning-phase of the experiment, the disbursement is higher in every conflict for the linear mode compared to the exponential mode. Hence, the need of justification should also be higher in the linear mode, leading to stronger rationalization and lower amounts of protest (e.g. Cooper, 2007; Festinger, 1957; Simon, Greenberg & Brehm, 1995, Lowell, 2011).

### **H2.2 The average amount of protest for participants who do not internalize will not differ significantly in the beginning-phase between the exponential mode and linear mode of disbursement.**

Since we assume that within this group, dissonance is not reduced by rationalization processes that render the act psychologically more acceptable, higher severity in the linear mode during conflicts of the beginning-phase should not lead to lower protest (e.g. Beauvois, 2001; Cooper, 2007).

### **H2.3 The average amount of protest for participants who internalize will be lower in the end-phase of the experiment when there is an exponential mode of disbursement.**

During the end-phase, protest should be lower in the exponential mode due to higher amounts of money that are demanded to be disbursed. As we have already argued above, this increase in severity of the act should lead to higher magnitudes of dissonance and therefore to stronger rationalization processes in order to reduce it. Hence, for participants who internalize, less protest should occur when severity of the act is higher (e.g. Cooper, 2007; Lowell, 2011).

**H2.4 The average amount of protest for participants who do not internalize will not differ significantly in the return- and end-phase between the exponential mode and linear mode of disbursement.**

We postulate this hypothesis according to H 2.2

**H3 Participants who internalize are calmer, more placid, satisfied, relaxed and less interested than participants who don't internalize.**

We argue that participants who internalize the demand should experience less dissonance than participants who don't internalize, because, as mentioned, they are rendering the act psychologically acceptable. Therefore, they should reduce dissonance more successfully, which should lead to lower amounts of protest and, accordingly, to an affectivity of minor psychological discomfort.

On the other hand, we assume that participants who don't internalize the demand do not increase its acceptance, because they are not rationalizing the act, as mentioned. However, as they are still behaving obediently and performing the unaccepted act, dissonance should be higher and thus, the reported affectivity should be more negative (e.g. Festinger, 1957; Aronson, 1968; Cooper, 2007).

**H4.1 Terminations of the experiment occur more often in the beginning-phase than in the later phases.**

For these participants, the demanded act is unacceptable to an extent, which evokes enough protest for the termination of the experiment. As a consequence, we assume that terminations must be taken place in the beginning-phase of the experiment, because they refuse to rationalize or justify the act in order to render it psychologically acceptable. This should subsequently evoke the degree of disobedience needed to terminate the experiment, as soon as the first conflicts arise ( Simon, Greenberg & Brehm, 1995; Beauvois, 2001).

**H4.2 There is no difference in termination rate between modes of disbursement.**

Since the demanded act itself is perceived as negative to an extent, which evokes enough protest for the experiment to be terminated, and no rationalization is used to reduce dissonance, we assume that its differing severity between the modes of disbursement should not have an impact (Beauvois, 2001).

#### **H4.3 Participants who terminate the experiment on average express more protest per conflict than participants who do not terminate.**

As we argue, participants who terminate the experiment should on average express more protest per conflict than participants who don't terminate, because they don't increase the acts acceptance through rationalization and therefore render the act more negatively (e.g. Beauvois, 2001; Lowell, 2011).

#### **H4.4 Participants who internalize are calmer, more placid, satisfied, relaxed and less interested than participants who terminate the experiment.**

As noted, we assume that participants who internalize reduce dissonance most successfully. Moreover, for participants who terminate the experiment, engaging strongly in the external conflict with the authority should arouse some dissonance, as it is assumed to violate societal norms. Thus, Participants who terminate should perceive more dissonance than participants who internalize. Accordingly, the differing amounts of dissonance should lead to reported affectivity states as hypothesized (e.g. Cooper and Fazio, 1984; Harmon-Jones and Harmon-Jones, 2007; Kenworthy, Collins, Read and Earleywine, 2011).

#### **H5.1: There is a negative association between protest and RWA-score**

As mentioned, the RWA can be separated into two subscales. The construct of authoritarian submission refers to the tendency of an uncritical submission to authority figures. In our opinion, this trait of authoritarian submission is a relevant factor for disobedience. This is because we assume that the degree to which disobedience against an authority figure is perceived as violation of societal standards and norms should be influenced by this trait. Therefore, we assume that protest is negatively correlated with the construct of authoritarian submission, because the higher the tendency to behave submissively, the lower the amount or degree of protest a participant is willing or capable to express should be. Moreover, we also assume that protest is negatively correlated with conservatism as it refers to the tendency to adhere conventional values and norms. Consequently, a negative relationship between RWA-score and amount of protest is expected (Nicol, 2007; Cooper and Fazio, 1984).

#### **H5.2: There is a negative association between protest and SDO-score**

Social Dominance Orientation (SDO) refers to a person's tendency to accept and believe in social hierarchies, which state the position within society for different groups of people. We therefore assume a negative correlation between protest and SDO because higher scoring



participants should perceive the authority as more powerful and legitimate, which consequently should lead to less protest against the experimenters demand (Pratto, Sidanius; Stallworth and Malle, 1994; Nicol, 2007).

### **H5.3 There is a negative association between protest and conscientiousness**

We expect a negative relationship between the amount of protest and conscientiousness due to its association with the tendency to avoid disruption of social order. Moreover, it is associated positively with conformity (Roccas, Sagiv, Schwartz & Knafo, 2002).

### **H5.4 There is a positive relationship between protest and neuroticism**

We expect a positive relationship between the amount of protest and neuroticism because it has been found to correlate with the impulsive tendency to outward negative emotions and thereby disregard values of tradition and conformity (Roccas, Sagiv, Schwartz & Knafo, 2002).

### **H5.5. There is a positive relationship between protest and openness.**

We expect a positive relationship between the amount of protest and openness to experience. The trait has been found to be most compatible with autonomy in an intellectual and emotional sense, and to relate negatively to conformity (Roccas, Sagiv, Schwartz & Knafo, 2002).

### **H5.6 There is a positive relationship between protest and extraversion.**

We expect a positive relationship between the amount of protest and extraversion because it has been found to be “antithetical to valuing self-denial or self-abnegation, expressed in traditional values” (Roccas, Sagiv, Schwartz & Knafo, 2002, p.795).

### **H5.7 There is a negative relationship between protest and agreeableness**

We expect a negative relationship between the amount of protest and agreeableness. This is because it has been found to associate with the tendency to fulfill social obligations and comply with social norms (Roccas, Sagiv, Schwartz & Knafo, 2002).

## 2. Method and Results

### *Participants*

In total, we tested 90 participants, 70 of which were female and 20 of which were male. The age ranges between 18 and 42 years with a mean age of 22,5 years. 4 participants had a university degree and 86 participants had the 'Matura' high school degree. 2 participants were excluded due to incomplete data.

### *Procedure and Design*

As already noted, the experiment was conducted as a role-play, which we have developed loosely following the studies of Milgram. Therefore, three persons were present during the experiment itself: the authority figure and two participants. Similar to Milgram, one participant was really a confederate of the experimenter, playing the role of the person, who, in our study, had to solve mental arithmetic tasks. The confederate and the participant were sitting at a table with a view-block in its middle, so that they were able to hear but not see each other. The experimenter (authority figure) was sitting on a table next to them, from where he was able to maintain eye contact to both of the others. Moreover, on the table in front of them they each had different papers. The accountant first had the instruction papers, which, as noted, stated that a defined amount of money was to be paid to the other participant for each correctly given answer. If, however, the answer for a task was wrong, there would be no payment. Moreover, on this instruction paper there were all of the 19 tasks and two additional 'warming-up' tasks. The correct answer for each task was also stated, so that the 'accountant' was able to verify the answers given by the confederate. Secondly, the 'accountant' was given another paper where the amount of money, which had to be paid out for a correct answer, was defined for each of the 19 tasks, and finally, there was a pile of money in front of the 'accountant', from which-according to the instructions- he had to pay the defined gratifications for each correct answer.

The confederate, on the other hand, seemingly was also given an instruction paper. In reality, however, there was each correct answer for each task stated on this paper. Moreover, there was also stated for each task if the confederate had to give a correct or an incorrect answer. As illustrated in Figure 3 below, the occurrence of the conflicts was standardized and, thus, wrong answers were given at the same tasks for each participant. Finally, on this paper, the confederate also noted if the participant internalized the act in the second phase, by stating either "0" (internalized) or "1" (not internalized) in the according box, as described.

As mentioned, the experimenter also had a paper in front of him, on which the amount of protest was noted for each conflict for each participant. Moreover, the experimenter also noted the condition (linear or exponential) for each participant on this paper, and whether they terminated the experiment or not, by stating either “0” (not terminated) or “1” (terminated) in the according box.

The procedure of the experiment was as follows: After the participant and the confederate appeared in the waiting room- the confederate always appeared last, in order to render his role as real participant more credible- they were welcomed by an assistant and given a questionnaire, containing all personality variables (RWA, SDO, BIG-5).

After having completed the questionnaire, they were led into the testing room, where the experimenter was already sitting at his table. After the experimenter welcomed the participant and the confederate, the assistant seemingly allotted the roles to the two participants by letting them choose between two pellets of paper that each had a letter written on them. However, whichever letter the real participant drew -“A” or “B”- he or she was always assigned to the role of the ‘accountant’, while the confederate was always assigned to solve the mental arithmetic tasks.

Once the roles were assigned, the assistant explained that the purpose of the experiment was to examine the effect of gratification on performance. Hence, the confederate was asked to perform mental arithmetic tasks-19 in total- and the participant was asked to administer the money for each correct answer. The participant and the confederate were then seated according to their roles.

After asking the participants to carefully read the instructions, the assistant left the room. The experimenter then asked the participant and the confederate whether they had understood their instructions, and finally, if both affirmed, whether they both could state again and with their own words what their role and obligations in the experiment were. Thus, the participant explicitly repeated that gratifications will be paid by him for correct answers only.

*Beginning-phase.* After that, the experiment itself started with two “warming- up” tasks. The confederate solved the “warming-up” as well as the first three questions correctly. Then, at the fourth task, a wrong answer was given. The ‘accountant’- without paying any money- proceeded to the next question, when suddenly the experimenter advised him to pay out the money and thereby created the first conflict, as described above. The following fifth, as well

as the seventh, eight and tenth question were too answered incorrectly, resulting in a conflict as well, since the experimenter was repeating his order after each incorrect answer.

*Second-phase: experimenter absent.* After the tenth question, which at the same time was the fifth conflict situation, the experimenter's cell-phone started to vibrate- the confederate secretly called him- and he left the room, telling the two participants to proceed with the experiment. In this phase, with the experimenter being physically absent, two more situations occurred, in which the confederate gave an incorrect answer- at question thirteen and fifteen. In these situations, the confederate then noted on the paper in front of him whether the participant was now acting according to the originally agreed upon instructions or if he or she followed the experimenter's order, as described above. In this way, internalization of the authority's order was assessed.

*Return-phase.* After question sixteen, the experimenter returned. Then, at question seventeen there was one more incorrect answer given, and, consequently, one more conflict arising, as the experimenter repeated his demand (if still necessary).

*End-phase.* Finally, at question eighteen and nineteen, the confederate refused to show any kind of effort whatsoever to solve the tasks- noting that he was tired of doing math-, and with that denied any answer. The experimenter, however, still ordered the 'accountant' to pay the defined amount of money, despite the lack of the slightest effort. At this point, the amount of money, which had to be paid out for each task and that increased from one task to another, had reached its peak.

The following Figure 3 illustrates the experiment further.

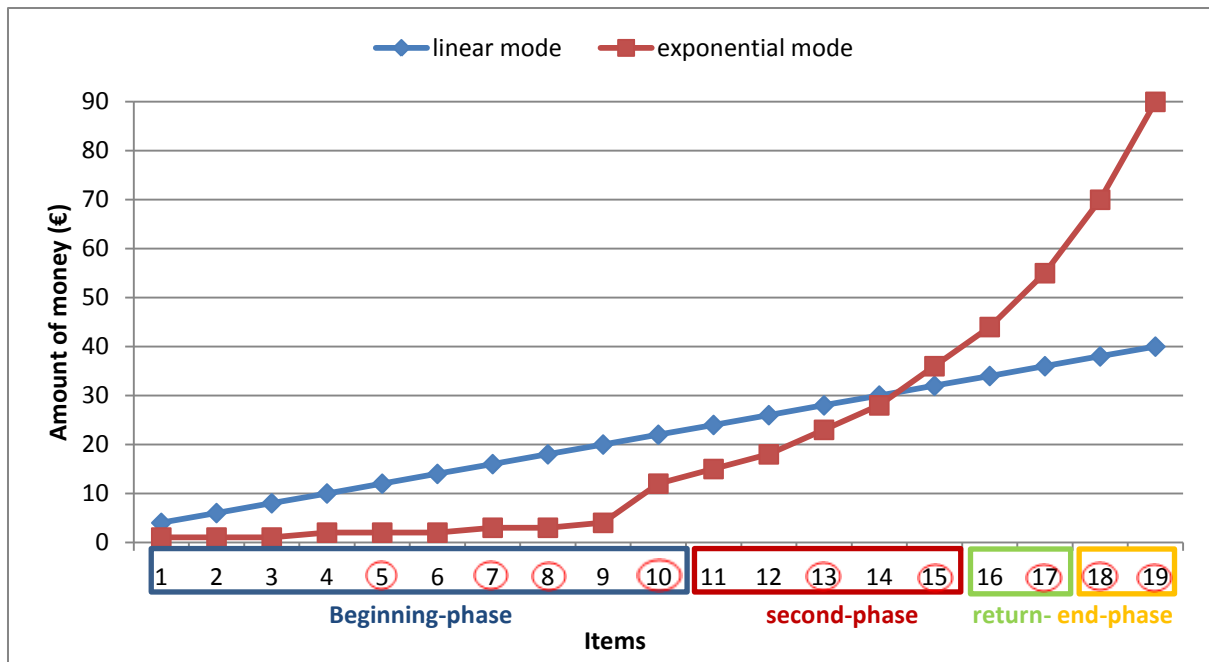


Figure 3. Phases of experiment with different modes of disbursement. Conflicts arise at the circled items.

As described, within the total amount of 19 items- representing the 19 different task the confederate was suppose to solve-, the four different phases can be identified. As illustrated, the beginning- phase is the longest. This is because we designed the phase in a way that could allow the participant to ‘learn’ the deviant behavior. Thus, five conflicts arose in this phase, because this would give the participant enough opportunities to rationalize the act, and reframe it as acceptable, which, subsequently, should lead to its internalization. Again, it is important to note that during the second-phase, the experimenter was physically absent, because here internalization was assessed, as described above. The return-phase, where the experimenter reappears after the second-phase, as well as the end-phase, where the confederate denies any effort and answer is also illustrated. Generally, the items, where conflict situations emerged for every participant, are circled. Finally, as mentioned, throughout the experiment, the amount of money which had to be paid out for correct answers increased constantly, whereby the different modes of disbursements- linear and exponential- are plotted. Again, it is illustrated that in the beginning-phase, the amounts of money are higher in the linear condition, while, in the return- and end-phase, they are higher for the exponential condition. However, the sum of the disbursed amounts is relatively equal, with 400 Euros for the exponential, and 418 for the linear mode.

## *Results*

### *Descriptive*

*Termination.* In general, 13 participants (14.8 %) terminated the experiment, while 75 (85.2 %) participants obeyed the authority's demand throughout the experiment. From the total of 68 female participants, 10 participants terminated the experiment (14.7%). From the total of 20 male participants, 3 participants terminated the experiment (15%).

*Internalization.* Moreover, within the group of participants who didn't terminate the experiment, 38 participants (50.6 %) internalized the demand in the second-phase, by performing the act even when the experimenter was physically absent. 26 of the participants who internalized were female (68.4%), while twelve were male (31.6%). This means that from the total of 68 female participants that participated in the experiment, 38.2% internalized the demand, while from the total of 20 male participants, 60% internalized. 73.7 % of participants who internalized were 23 years old or younger, while the other 26.3 % were between 24 and 31 years old.

Accordingly, within the group of participants who didn't terminate the experiment, 37 participants (49.4 %) did not internalize the demand, but instead rejected it as soon as the experimenter was absent, and acted according to the originally established instructions. 32 of participants who didn't internalize were female (86.5%), while five participants were male (13.5%). This means that from the total of 68 female participants, 47% did not internalize the demand, while from the total of 20 male participants, 25 % did not internalize. 83.8 % of these participants were 23 years old or younger, while the other 16.2 % were between 24 and 42 years old.

### *Results of Hypothesis Testing*

#### **H1.1 The average amount of protest will directly decrease during the experiment for participants who internalize the demand.**

In order to test the hypothesis regarding the average amount of verbal protest in the different conflicts, a repeated-measurement ANOVA was computed. The dependent variable was the average amount of protest in a conflict and the independent variables were the different conflicts. The average amount of protest was calculated for each conflict by summarizing the amount of protest from each participant and dividing it by the number of these participants. Only the eight conflicts from the beginning-, return- and end-phase were considered, because,

as mentioned above, in the second phase, used to assess internalization, there is no verbal protest due to the absence of the experimenter.

As expected, the results show a significant difference in the average amount of protest between the conflicts,  $F(2.88, 106.87) = 27.80, p < .01$ . Mauchly's test of sphericity indicates that assumptions have been violated  $\chi^2(27) = 149.332, p < .01$ , therefore multivariate tests are reported ( $\epsilon = .41$ ). The results show that the strength of protest was significantly affected by the type of conflict,  $V = 0.79, F(7.31) = 16.97, p < .01$ , which confirms that the amount of protest varies significantly between at least two or more conflicts.

Contrasts were computed in order to specify the differences between the amounts of protest in the different conflicts for participants who internalized. As expected, contrasts reveal that verbal protest was lower in the second conflict, than in the first conflict,  $F(1) = 28.10, p < .01$ . There was no significant difference in the amount of verbal protest for participants who internalize between third and second conflict,  $F(1) = 0.39, p > .05$ , between fourth and third conflict,  $F(1) = 2.69, p > .05$ , as well as between conflict five and conflict four,  $F(1) = 0.00, p > .05$ . The average strength of protest then was significantly lower in conflict six than in conflict five,  $F(1) = 7.49, p < .01$ . No significant difference was found between conflict seven and six,  $F(1) = 4.07, p > .05$ , and finally, there was no significant difference in the amount of verbal protest between conflict eight and conflict seven,  $F(1) = 3.78, p < .05$ . Results therefore indicate that the average amount of protest directly decreased throughout the experiment.

### **H1.2 The average amount of protest will not directly decrease during the experiment for participants who do not internalize.**

Analogical to H1.1 we computed another repeated-measurement ANOVA for participants who did not internalize the demand and therefore did not perform the demanded act when the experimenter was physically absent but acted in accordance with the originally established rules of the instruction. The unexpected result shows a significant difference in the average amount of protest between the phases,  $F(4.27, 153.56) = 6.36, p < .01$ . Mauchly's test of sphericity indicates that assumptions have been violated  $\chi^2(27) = 183.97, p < .01$ , therefore multivariate tests are reported ( $\epsilon = .61$ ). The results show that the strength of verbal protest was significantly affected by the type of phase,  $V = 0.54, F(7.30) = 5.01, p < .01$ , which confirms that the amount of protest varies significantly between at least two or more conflicts.

Even though the overall ANOVA—contrary to our assumption—suggests that there was a difference between the amounts of verbal protest in the different conflicts, the contrasts that

were computed in order to specify the differences between the conflicts for participants who did not internalize, relativize this finding. Contrasts reveal that verbal protest was significantly lower in the second conflict than in the first conflict,  $F(1) = 4.69, p < .05$ . However, there was no significant difference in the amount of verbal protest between third and second conflict,  $F(1) = 0.05, p > .05$ , between fourth and third conflict,  $F(1) = 2.69, p > .05$ , between conflict five and conflict four,  $F(1) = 3.17, p > .05$ , conflict six and conflict five  $F(1) = 3.17, p > .05$ , conflict seven and conflict six,  $F(1) = 1.00, p > .05$ , and finally between conflict eight and conflict seven,  $F(1) = 1.84, p > .05$ . This means, that the amount of protest did not decrease throughout the entire experiment, as it was the case within the group of participants who internalized, but that it only decreased at the very beginning.

### **H1.3 The average amount of protest during the beginning-phase, as well as the return-and end-phase will be lower for participants who internalize than for participants who don't internalize the demand.**

To test this assumption, independent t-tests were computed, with the average amount of protest for every specific phase as dependent variable and the two groups of participants as independent variable. The average amount of protest for each phase was calculated by summarizing the amount of protest for each conflict in a specific phase and dividing it by the number of occurring conflicts in that phase.

As expected, results show that on average, participants who internalized the authority's demand expressed less verbal protest in the conflicts of the beginning-phase, prior to the second-phase ( $M = 0.73, SE = 0.39$ ). Accordingly, participants who didn't internalize expressed more protest in this phase ( $M = .09, SE = 0.32$ ). This difference between the two groups of participants was significant,  $t(71.01) = -4.37, p < 0.1$ .

Moreover, another independent t-test was computed for the return-phase. As expected, results show that on average, participants who internalized the authority's demand expressed less verbal protest in the conflict of the return-phase, after the second-phase ( $M = 0.18, SE = 0.39$ ). Participants who didn't internalize therefore expressed more protest in the return-phase. ( $M = 1.03; SE = 0, 44$ ). The difference between the two groups of participants again was significant,  $t(73) = -8.78, p < 0.1$ .

Finally, an independent t-test was computed for the end-phase. As expected, results show that on average, participants who internalized the authority's demand expressed less verbal protest in the end-phase. ( $M = 0.25, SE = 0.45$ ). Participants who didn't internalize therefore expressed



more protest in the return-phase. ( $M= 0.96$ ;  $SE= 0,30$ ). The difference between the two groups of participants was significant,  $t(64.64) = -8.12$ ,  $p < 0.1$ . Results from H1.1, H2.1 and H1.3 are illustrated in Table 1 and Figure 4.

*Table 1.* Means and Std. Deviation of amounts of protest for participants who did not terminate (without conflicts of the second-phase).<sup>a</sup> Significant Difference between participants who internalized and didn't internalize. <sup>b</sup> Significant Difference between male and female participants. Protest ranges between 0 and 4. (Significance level was  $\alpha < .5$ ).

Conflict Nr.	Mean (Std. Deviation)					
	Internalized			Not Internalized		
	Total (N38)	Male (n12)	Female (n26)	Total (N37)	Male (n5)	Female (n32)
Item 4	1.63 (0.85)	1.92 (0.90)	1.50 (0.81)	1.38 (0.55)	1.60 (0.55)	1.34 (0.55)
Item 5	0.63 <sup>a</sup> (0.59)	0.58 (0.51)	0.65 (0.63)	1.14 <sup>a</sup> (0.59)	1.20 (0.45)	1.13 (0.61)
Item 7	0.58 <sup>a</sup> (0.68)	0.42 (0.51)	0.65 (0.75)	1.11 <sup>a</sup> (0.61)	1.20 (0.45)	1.09 (0.64)
Item 8	0.39 <sup>a</sup> (0.64)	0.17 (0.39)	0.50 (0.71)	0.95 <sup>a</sup> (0.41)	0.80 (0.45)	0.97 (0.40)
Item 10	0.39 <sup>a</sup> (0.60)	0.33 (0.65)	0.42 (0.58)	0.86 <sup>a</sup> (0.35)	0.80 (0.45)	0.87 (0.34)
<b>Beginning-Phase</b>	<b>0.72<sup>a</sup> (0.62)</b>	<b>0.69 (0.59)</b>	<b>0.74 (0.70)</b>	<b>1.9<sup>a</sup> (0.50)</b>	<b>1.12 (0.47)</b>	<b>1.07 (0.51)</b>
Item 17	0.18 <sup>a</sup> (0.39)	0.00 <sup>b</sup> (0.00)	0.27 <sup>b</sup> (0.45)	1.03 <sup>a</sup> (0.44)	1.00 (0.00)	1.03 (0.47)
<b>Return-Phase</b>	<b>0.18<sup>a</sup> (0.39)</b>	<b>0.00<sup>b</sup> (0.00)</b>	<b>0.27<sup>b</sup> (0.45)</b>	<b>1.03<sup>a</sup> (0.44)</b>	<b>1.00 (0.00)</b>	<b>1.03 (0.47)</b>
Item 18	0.37 <sup>a</sup> (0.75)	0.25 <sup>b</sup> (0.45)	0.42 <sup>b</sup> (0.86)	1.00 <sup>a</sup> (0.41)	1.00 (0.00)	1.00 (0.44)
Item 19	0.13 <sup>a</sup> (0.34)	0.00 <sup>b</sup> (0.00)	0.19 <sup>b</sup> (0.40)	0.92 <sup>a</sup> (0.28)	1.00 (0.00)	0.91 (0.30)
<b>End-Phase</b>	<b>0.25<sup>a</sup> (0.55)</b>	<b>0.13<sup>b</sup> (0.23)</b>	<b>0.31<sup>b</sup> (0.63)</b>	<b>0.96<sup>a</sup> (0.35)</b>	<b>1.00 (0.00)</b>	<b>0.96 (0.37)</b>

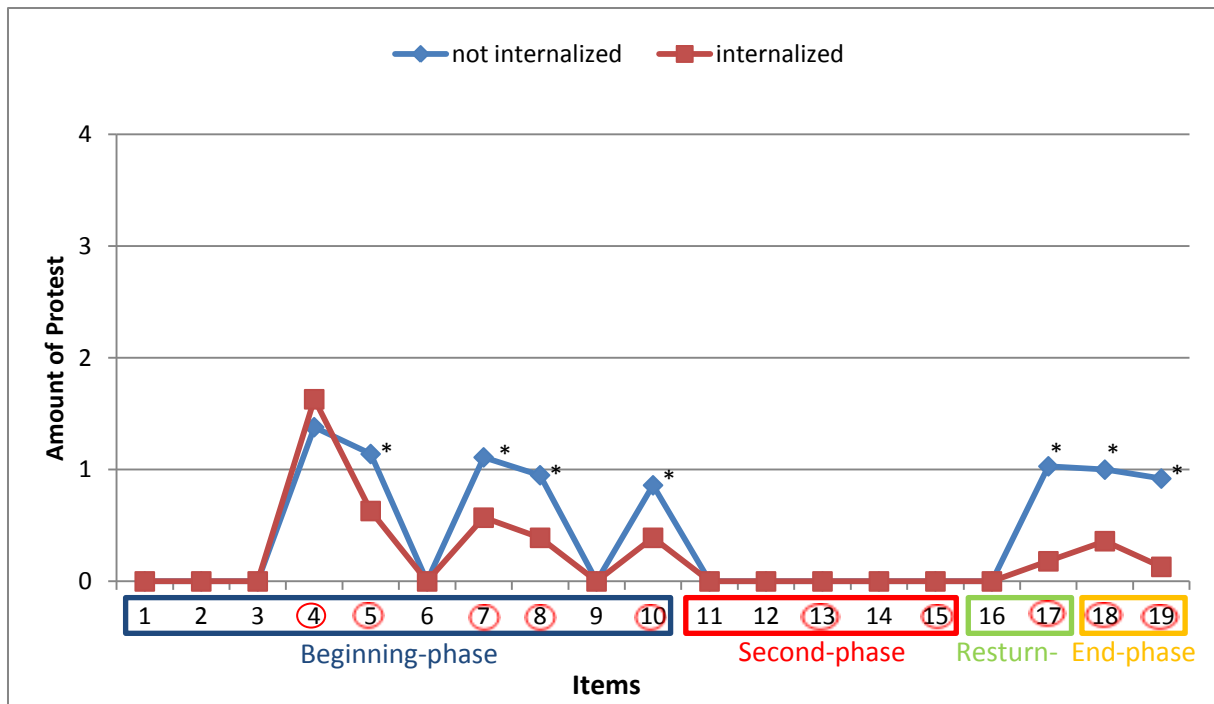


Figure 4. Average amount of protest per conflict for participants who internalized and didn't internalize, from "0" (unsolicited performance of act) to "4" (order has to be repeated four times before it is obeyed). During the second-phase, the experimenter is absent and no protest is assessed. Conflicts occur at the circled items. \* Significant Difference between participants who internalized and didn't internalize.

### Discussion

As result from H1.1 and H1.2 show, if participants are separated into two groups according to the criteria of internalization two different patterns emerge, implying two different modes of dissonance reduction.

If we look at the group of participants who internalized the authority's demand in the second-phase (item 11 to item 15) in Figure 4, there was a gradual decrease over the course of the experiment in three steps. First, the average protest in the first conflict (item four) was higher than during the rest of the experiment. Secondly, the average protest in the remaining conflicts of the beginning-phase (item five, seven, eight and ten) was higher than in the conflicts of the return- and end-phase (item 17, 18 and 19), and finally, this means that the average protest in the return-and end-phase was the lowest in the experiment. Hence, there was a decrease of resistance against the demanded act in the face of increasing severity. Paradoxically, at the point in the experiment where severity of the demanded act had reached its peak, resistance against the act was at its low. The increase in the ease therefore is absolute, meaning that the average amount of protest decreased directly throughout the experiment. In the end, participants were willing to comply to the demand even when there

was no effort whatsoever to solve the task by the confederate, and the amount of money was highest. The escalation of behavior, defined as an increase in ease, severity and pervasiveness, was thus found in this group of participants.

Accordingly, in the beginning-phase, it can be seen in Figure 4 that while average protest in the first conflict (item four) was equally high for both groups of participants, participants who internalized the demand in the second-phase showed a stronger decrease of protest during the conflicts of the beginning phase (item 1 to 10). Therefore, in this group, starting from the second conflict (item 5), the average amount of protest was decreasing towards '0', indicating that an increasing amount of participants were not protesting at all, but instead were performing the demanded act without the demand itself having to be repeated. Consequently, the average protest was lower throughout the entire experiment for this group of participants who internalized, compared to the group of participants who didn't internalize.

The patterns of protest within this group indicate that they were indeed rationalizing and therefore justifying the act in order to reduce dissonance. Due to this rationalization of behavior in the beginning-phase, the act was rendered psychologically more acceptable, as the decreasing amount of average protest indicates. In addition, results indicate that due to this acceptance they decided to perform the act in the second-phase, even when it was not directly ordered. Thus, due to the higher acceptance of the act, stemming from rationalization, they internalized the act. After having performed the act even when the experimenter was absent (second-phase) the act was also performed in the return- and end-phase (item 16 till 19), as severity of the act further increased, and no effort was shown by the confederate to solve the arithmetic tasks. Moreover, after internalizing the act, resistance was now even lower in these phases, as prior to the internalization.

On the other hand, the protest expressed within the group of participants who didn't internalize the demand in the second-phase, did not significantly differ during the experiment-with the exception of higher protest at the first conflict (item 4). It therefore can be concluded from these results that within this group of participants, processes of rationalization did not occur because the constant amount of openly demonstrated protest in the beginning-phase indicates that the psychological acceptance of the demanded act did not increase, as this would have led to lower amounts of protest. This can also explain why participants within this group decided not to internalize the demand, but to act according to the originally established rules, as soon as the experimenter was physically absent. Consequently, because no rationalization was used, and thus, the act was not internalized, the average amount of protest

did not decrease in the face of increasing severity in the return- and end-phase. Therefore, the effect of a gradually –and directly- decreasing resistance in the face of increasing severity throughout the experiment was not found in this group. As a result, these participants behaved obediently and performed the act only when they were explicitly told to do so, but refused to psychologically accept the act, as they refused to internalize it.

As assumed, this means that there still was an increase in the ease of the act, but rather than being absolute, it is a relative increase: While the protest on average remains the same, the severity of the act is constantly increasing.

As we argue, these results indicate that within this group of participants dissonance was not reduced by rationalization, but that instead dissonance was to some extent alleviated by exhibiting a behavior that was consistent with the self-concept and thus reduced the perceived inconsistency between behavior and self-expectancies. As we have seen, throughout the experiment this group of participants expressed a constant amount of resistance against the demanded act- on average, by refusing to perform the act without being explicitly told to do so. Therefore, we assume that they were able to reduce dissonance without engaging in rationalization that would have led to higher acceptance of the act and consequently to decreasing amounts of protest, as we have seen. Instead, results indicate that resistance itself- even as subtle as this- indeed served as a consistent cognition, which was added as a consistent cognition to the discrepancy between behavior and self-concept and thereby reduced the perceived inconsistency.

### **H2.1 The average amount of protest for participants who internalize will be lower in the beginning-phase of the experiment when there is a linear mode of disbursement.**

To test this assumption, an independent t-test was computed with the average amount of protest in the beginning-phase as dependent and the disbursement modes as independent variable. The average amount of protest for the beginning-phase was calculated by summarizing the amount of protest from each conflict in this phase and dividing it by the number of conflicts arising. As expected, results show that on average, participants who internalized the authority's demand expressed less verbal protest in the conflicts of the beginning-phase when there was a linear mode of disbursement ( $M= 0.53$ ,  $SE= 0.37$ ). Accordingly, participants who internalized expressed more protest in this phase when there was an exponential mode of disbursement ( $M=0.90$ ,  $SE=0.33$ ). This difference between the two modes of disbursement was significant,  $t(36) = -3.24$ ,  $p < 0.1$ .

**H2.2 The average amount of protest for participants who do not internalize will not differ significantly in the beginning-phase between the exponential mode and linear mode of disbursement.**

To test this assumption, an independent t-test was computed with the average amount of protest in the beginning-phase as dependent and the mode of disbursement as independent variable. Again, the average amount of protest for the beginning-phase was calculated by summarizing the amount of protest from each conflict in this phase and dividing it by the number of conflicts arising. Results show that on average, participants who did not internalize the authority's demand expressed less verbal protest in the conflicts of the beginning-phase, prior to the second-phase, when there was a linear mode of disbursement ( $M= 1.07$ ,  $SE= 0.34$ ). Participants who internalized, on average, expressed more protest in this phase when there was an exponential mode of disbursement ( $M= 1.11$ ,  $SE= 0.31$ ). However, as expected, this difference between the two modes of disbursement was not significant,  $t(35) = -3.34$ ,  $p > 0.5$ .

**H2.3 The average amount of protest for participants who internalize will be lower in the end-phase of the experiment when there is an exponential mode of disbursement.**

Analogically to H1.1.1, to test this assumption, an independent t-test was computed with the average amount of protest in the end-phase as dependent and the disbursement mode as independent variable. The average amount of protest for the end-phase was calculated by summarizing the amount of protest from each conflict in this phase and dividing it by the number of conflicts arising. The results show that on average, participants who internalized the authority's demand expressed less protest in the conflicts of the end-phase when there was an exponential mode of disbursement ( $M= 0.23$ ,  $SE= 0.38$ ), whereas participants who internalized expressed more protest in this phase when there was a linear mode of disbursement ( $M= 0.28$ ,  $SE= 0.52$ ). However, contrary to the prediction, this difference between the two modes of disbursement was not significant,  $t(36) = 0.360$ ,  $p > 0.5$ .

**H2.4 The average amount of protest for participants who do not internalize will not differ significantly in the end-phase between the exponential mode and linear mode of disbursement.**

Analogically to H2.1.1, an independent t-test was computed with the average amount of protest in the end-phase as dependent and the mode of disbursement as independent variable. Results show that on average, participants who did not internalize the authority's demand

expressed less verbal protest in the conflicts of the end-phase when there was an exponential mode of disbursement (M= 0.94, SE= 0.24). Participants who didn't internalize, on average, expressed more protest in this phase when there was a linear mode of disbursement (M= 0.98, SE= 0.34). However, as expected, this difference between the two modes of disbursement was not significant,  $t(35) = 0.34, p > 0.5$ . Results from H1.1.1, H1.2.1 as well as H1.1.2 and H1.2.2 are illustrated in Table 2 and Figure 4.

*Table 2.* Means and Std. Deviation of amount of protest for participants who internalized and didn't internalize, for conflicts and phases (without second-phase) of the different modes of disbursement. <sup>a</sup>Significant difference between linear and exponential mode of disbursement. <sup>b</sup>Significant Difference between male and female participants within one mode of disbursement. Protest ranges from "0" to "4". (Significance level was  $\alpha < .5$ ).

Conflict	Linear Mode of Disbursement (N 38)						Exponential Mode of Disbursement (N 37)					
	Mean (Std. Deviation)						Mean (Std. Deviation)					
	Internalized			Not Internalized			Internalized			Not Internalized		
	Total (n18)	Male (n7)	Female (n11)	Total (n20)	Male (n3)	Female (n17)	Total (n20)	Male (n5)	Female (n15)	Total (n17)	Male (n2)	Female (n15)
Item 4	1.50 (0.79)	1.57 (0.79)	1.45 (0.82)	1.45 (0.61)	1.67 (0.58)	1.41 (0.62)	1.75 (0.91)	2.40 (0.89)	1.53 (0.83)	1.29 (0.47)	1.50 (0.71)	1.27 (0.46)
Item 5	0.39 <sup>a</sup> (0.61)	0.43 (0.54)	0.36 (0.67)	1.15 (0.59)	1.33 (0.58)	1.12 (0.60)	0.85 <sup>a</sup> (0.49)	0.80 (0.45)	0.87 (0.52)	1.12 (0.60)	1.00 (0.00)	1.13 (0.64)
Item 7	0.33 <sup>a</sup> (0.49)	0.43 (0.54)	0.27 (0.47)	1.10 (0.64)	1.33 (0.58)	1.06 (0.66)	0.80 <sup>a</sup> (0.77)	0.40 (0.55)	0.93 (0.80)	1.12 (0.60)	1.00 (0.00)	1.13 (0.64)
Item 8	0.22 (0.43)	0.29 (0.49)	0.18 (0.41)	0.85 (0.37)	0.67 (0.58)	0.88 (0.33)	0.55 (0.76)	0.00 <sup>b</sup> (0.00)	0.73 <sup>b</sup> (0.80)	1.10 (0.43)	1.09 (0.00)	1.07 (0.46)
Item 10	0.22 <sup>a</sup> (0.43)	0.29 (0.49)	0.18 (0.41)	0.80 (0.41)	0.67 (0.58)	0.82 (0.39)	0.55 <sup>a</sup> (0.69)	0.40 (0.89)	0.60 (0.63)	0.94 (0.24)	1.00 (0.00)	0.93 (0.26)
<b>Beginning-Phase</b>	<b>0.53<sup>a</sup></b> <b>(0.55)</b>	<b>0.60</b> <b>(0.57)</b>	<b>0.49</b> <b>(0.56)</b>	<b>1.1</b> <b>(0.52)</b>	<b>1.13</b> <b>(0.58)</b>	<b>1.06</b> <b>(0.52)</b>	<b>0.90<sup>a</sup></b> <b>(0.72)</b>	<b>0.80</b> <b>(0.56)</b>	<b>0.93</b> <b>(0.72)</b>	<b>1.1</b> <b>(0.52)</b>	<b>1.1</b> <b>(0.14)</b>	<b>1.11</b> <b>(0.49)</b>
Item 17	0.11 (0.32)	0.00 (0.00)	0.18 (0.41)	1.10 (0.55)	1.00 (0.009)	1.12 (0.60)	0.25 (0.44)	0.00 <sup>b</sup> (0.00)	0.33 <sup>b</sup> (0.49)	0.94 (0.24)	1.00 (0.00)	0.93 (0.26)
<b>Return-Phase</b>	<b>0.11</b> <b>(0.32)</b>	<b>0.00</b> <b>(0.00)</b>	<b>0.18</b> <b>(0.41)</b>	<b>1.10</b> <b>(0.55)</b>	<b>1.00</b> <b>(0.00)</b>	<b>1.12</b> <b>(0.60)</b>	<b>0.25</b> <b>(0.44)</b>	<b>0.00<sup>b</sup></b> <b>(0.00)</b>	<b>0.33<sup>b</sup></b> <b>(0.49)</b>	<b>0.94</b> <b>(0.24)</b>	<b>1.00</b> <b>(0.00)</b>	<b>0.93</b> <b>(0.26)</b>
Item 18	0.44 (0.98)	0.43 (0.54)	0.45 (1.21)	1.05 (0.51)	1.00 (0.00)	1.06 (0.56)	0.30 (0.47)	0.00 <sup>b</sup> (0.00)	0.40 <sup>b</sup> (0.51)	0.94 (0.24)	1.00 (0.00)	0.93 (0.26)
Item 19	0.11 (0.32)	0.00 (0.00)	0.18 (0.41)	0.90 (0.31)	1.00 (0.00)	0.88 (0.33)	0.15 (0.37)	0.00 (0.00)	0.20 (0.41)	0.94 (0.24)	1.00 (0.00)	0.93 (0.26)
<b>End-Phase</b>	<b>0.28</b> <b>(0.65)</b>	<b>0.22</b> <b>(0.27)</b>	<b>0.32</b> <b>(0.81)</b>	<b>0.98</b> <b>(0.41)</b>	<b>1.00</b> <b>(0.00)</b>	<b>0.97</b> <b>(0.45)</b>	<b>0.23</b> <b>(0.51)</b>	<b>0.00<sup>b</sup></b> <b>(0.00)</b>	<b>0.30<sup>b</sup></b> <b>(0.46)</b>	<b>1.00</b> <b>(0.24)</b>	<b>1.00</b> <b>(0.00)</b>	<b>0.93</b> <b>(0.26)</b>

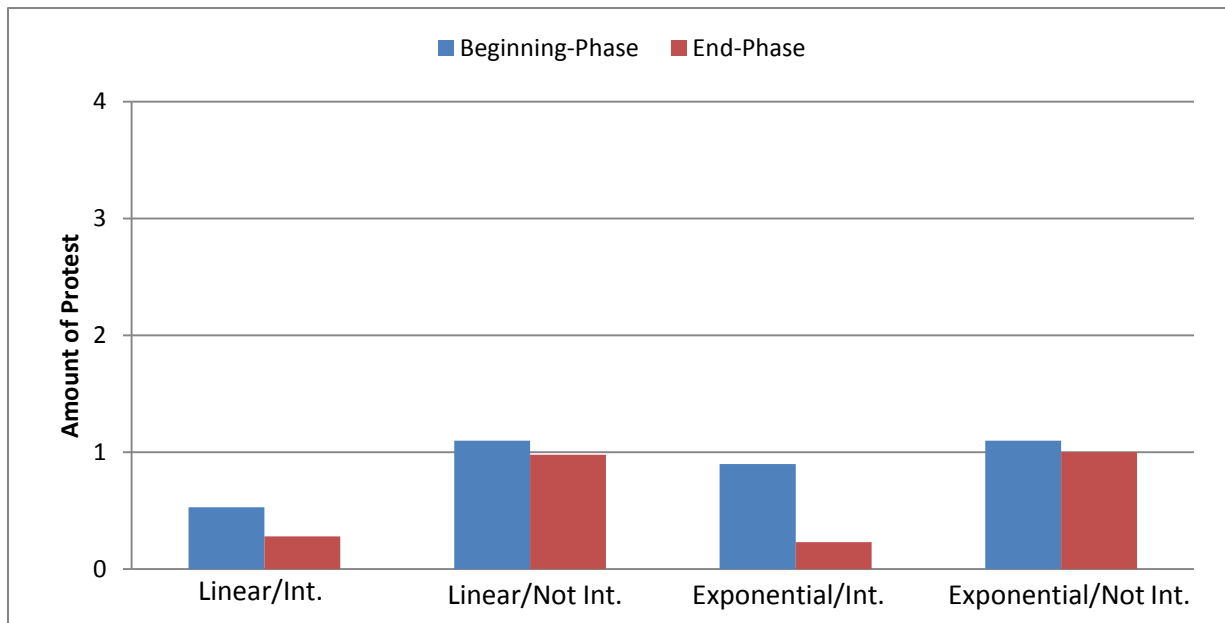


Figure 5. Average amount of protest for beginning- and end-phase for participants who internalized and participants who didn't internalize in the different modes of disbursement.

### Discussion

Regarding the modes of disbursement, results too indicate that rationalization processes were used in order to reduce dissonance within the group of participants who internalized. If we look at the groups of “Linear/Internalized” and “Exponential/Internalized” in Figure 5, as predicted, results show that the higher severity of the act in the linear mode during the beginning-phase consequently led to lower amounts of protest for participants who internalized. This means that participants who internalized expressed less protest during the beginning-phase when they were in the linear condition, instead of the exponential condition. This result indicates that psychological acceptance of the act paradoxically increased with its severity. While the amount of money that had to be disbursed during the beginning-phase was higher in the linear condition, the amount of protest was lower. This confirms our assumptions, as it can be explained by stronger rationalization, which is evoked by higher severity of the act, which causes greater dissonance. Hence, this result indicates that the perceived dissonance increases as the inconsistent act becomes more severe. This is the case because, as the inconsistent act becomes more severe, the discrepancy between behavior and self-concept increases. Furthermore, the fact that there was no significant difference in the end-phase between “Linear/Internalized” and “Exponential/Internalized” might be explained by the generally low amount of protest, which was already so low, that the relatively small distinctions did not reach significance. The average amount of protest for the beginning-phase and especially for the end-phase indicate that an increasing amount of participants who

internalized performed the act without an explicit and direct order to do so by the authority figure. Interestingly, the decrease of resistance against the act is strongest in the “Exponential/Internalized” group. Here, the act is initially less severe than in the linear disbursement mode and, during the return- and end-phase, more severe than in the linear mode. This indicates that the escalation effect is stronger, when the initial act is less severe and severity increases exponentially. Moreover, as Table 2 shows, the escalating effect in the exponential mode is stronger for male than for female participants, because their resistance against the act decreases more strongly and also more rapidly.

Accordingly, within the group of participants who didn't internalize, no significant decrease in the amount of protest was found between modes of disbursement. If we look at the groups of “Linear/Not Internalized” and “Exponential/ Not Internalized” in Figure 5, it can be seen that the average amount of protest for participants who didn't internalize was equally high in the linear and the exponential condition during the beginning phase, as well as during the end-phase. This indicates that in this group of participants, rationalization processes were not used to reduce dissonance, because the amount of protest did not decrease in the face of higher severity in the linear mode, as it did for participants who internalized. Accordingly, there is no significant difference in the average amount of protest between the beginning-phase and the end-phase for the groups of “Linear/Not Internalized” and “Exponential/Not Internalized”, as the amount of protest remains relatively constant at “1”, as Figure 5 shows. Again, this indicates that participants who didn't internalize refused to accept the inconsistent act and the authority figure had to explicitly and directly order it, before it was performed.

### **H3 Participants who internalize are calmer, more placid, satisfied, relaxed and less interested than participants who don't internalize.**

To test this assumption, a t-test was computed for each affectivity state- which participants had reported on a 7-point scale- as dependent variable, and the two groups of participants as independent variables.

On average, participants who internalized felt calmer and less agitated ( $M= 4.34$ ,  $SE= 1.58$ ) than participants who didn't internalize ( $M= 4.27$ ,  $SE= 1.71$ ). Contrary to the assumption, this difference was not significant  $t(73) = 1.09$ .

On average, participants who internalized felt more placid and less nervous ( $M= 4.92$ ,  $SE= 1.44$ ) than participants who didn't internalize ( $M= 4.42$ ,  $SE= 1.48$ ). Contrary to our assumptions, this difference was not significant  $t(72) = 1.49$ .



On average, participants who internalized felt more satisfied and less unsatisfied ( $M= 5.21$ ,  $SE= 1.51$ ) than participants who didn't internalize ( $M= 4.59$ ,  $SE= 1.55$ ). As expected, this difference was significant  $t(73) = 1.74$ .

On average, participants who internalized felt more relaxed and less tens ( $M= 4.74$ ,  $SE= 1.92$ ) than participants who didn't internalize ( $M= 4.27$ ,  $SE= 1.71$ ). Contrary to our assumptions, this difference was not significant  $t(73) = 1.11$ .

On average, participants who internalized felt less interested and more bored ( $M= 5.05$ ,  $SE= 1.45$ ) than participants who didn't internalize ( $M= 5.35$ ,  $SE= 1.21$ ). Contrary to our assumptions, this difference was not significant  $t(73) = -.97$ . Results are illustrated in Table 3.

*Table 3.* Affectivity- scores for male and female participants who didn't terminate.  
<sup>a</sup>Significant difference between participants who internalized and who didn't internalize.  
<sup>b</sup>Significant difference between male and female participants within one condition. The score ranges between "1" and "7". (Significance level was  $\alpha < .5$ ).

Affect (1-7)	Mean (Std. Deviation)					
	Total (N38)	Internalized		Not Internalized		
		Male (n12)	Female (n26)	Total (N36)	Male (n5)	Female (n31)
Agitated vs. Calm	4.34 (1.58)	4.58 (2.11)	4.23 (1.31)	4.27 (1.71)	3.40 (1.34)	4.10 (1.58)
Nervous vs. Placid	4.92 (1.44)	5.42 (1.51)	4.69 (1.38)	4.35 (1.51)	4.40 (1.95)	4.42 (1.43)
Unsatisfied vs. Satisfied	5.21 <sup>a</sup> (1.51)	5.58 (1.24)	5.04 (1.61)	4.59 <sup>a</sup> (1.55)	3.40 (1.52)	4.81 (1.51)
Tens vs. Relaxed	4.74 (1.92)	5.50 (2.00)	4.38 (1.81)	4.27 (1.71)	3.80 (2.49)	4.42 (1.56)
Bored vs. Interested	5.05 (1.29)	5.75 <sup>b</sup> (1.29)	4.73 <sup>b</sup> (1.43)	5.35 (1.21)	4.80 (1.64)	5.42 (1.15)

### Discussion

The affectivity scores for both groups support the assumptions that rationalization processes were underlying the effect of escalation, as it was found in the group of participants who internalized, because, as predicted, these participants expressed a more positive affectivity after the experiment than did participants who didn't internalize, by stating that they felt more satisfied. As we argue, satisfaction is an indicator for the cognitive evaluation of the own behavior. Thus, since participant who internalized the demand, and who behaved most obediently throughout the experiment, stated that they were more satisfied with their

behavior, it can be concluded that they perceived less cognitive dissonance. This indicates that they rationalized their behavior, and reframed it as acceptable, which supports our assumption that rationalization lead to higher psychological acceptance of the demanded act, and, consequently, to a more positive cognitive evaluation after the experiment.

**H4.1: Terminations of the experiment occur more often in the beginning-phase than in the later phases.**

In order to test the assumption a chi-square test was computed. As expected, there was a significant association between the phase of experiment and whether or not participants would terminate.  $\chi^2 (2) = 88.00, p < .001$ . Results show that there were more terminations in the beginning-phase of the experiment. Figure 6 illustrates this finding.

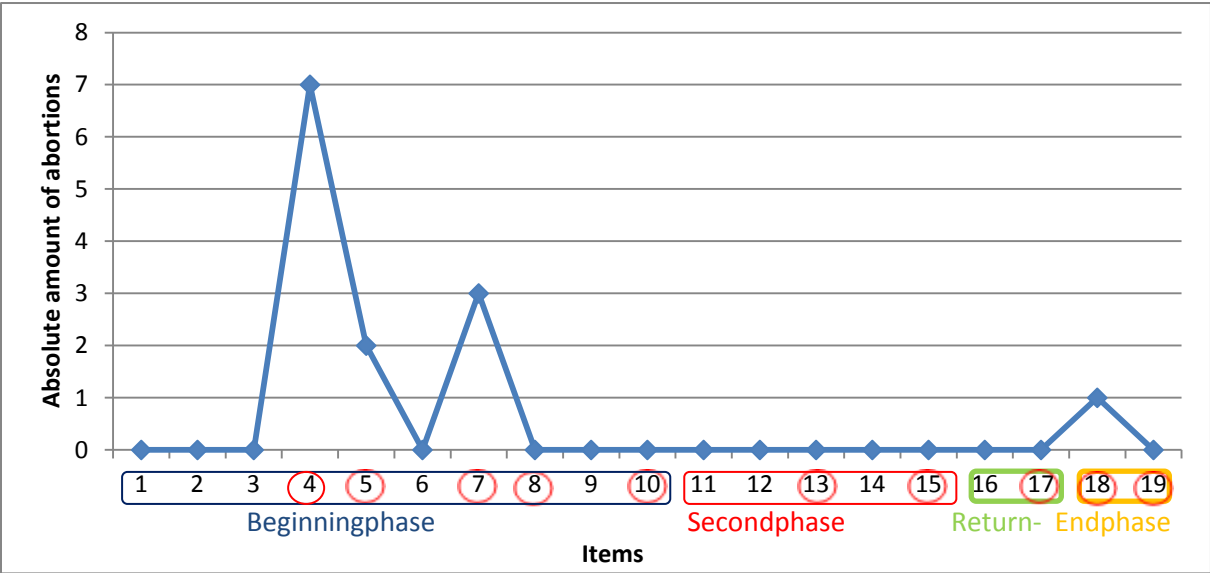


Figure 6. Absolute amount of terminations per item. Circled items mark the conflict situations.

**H4.2: There is no difference in termination rate between modes of disbursement.**

In order to test this assumption, a  $\chi^2$  test was computed. As expected, results show that there is no significant relation between mode of disbursement and number of terminations,  $\chi^2 (1) = .09, p > .05$ . Hence, the mode of disbursement had no effect on terminations.

**H4.3: Participants who terminate the experiment, on average express more protest than participants who internalize and participants who don't internalize.**

To test this assumption, an ANOVA was computed, with the average amount of protest per conflict as dependent variable and the three groups of participants as independent variable. As

expected, there was a significant difference in the average amount of protest between the three groups of participants,  $F(15.45) = 183.15, p < .001$ . Results show that there was a significant quadratic trend,  $F(1, 85) = 196.07, p < .001$ , indicating that from one group to the next (internalized- not internalized- terminated) the average amount of protest increased curvilinear. As expected, planned contrast revealed that participants who terminated the experiment expressed significantly more protest than participants who did not terminate,  $t(11.50) = -26.69, p < .001$ . Figure 2.7 illustrates these findings.

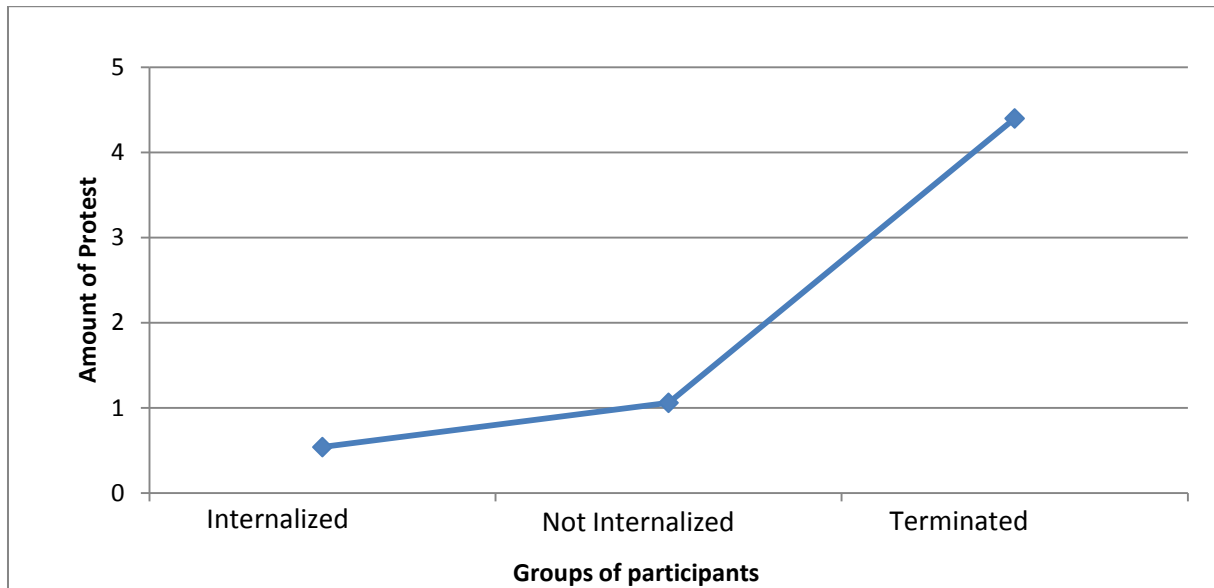


Figure 7. Average amount of protest in a conflict per person for the three different groups of participants.

#### **H4.4 Participants who internalize are calmer, more placid, satisfied, relaxed and less interested than participants who terminate the experiment.**

To test this assumption, a t-test was computed for each reported affectivity state as dependent variable, and the two groups of participants as independent variables.

On average, participants who internalized felt calmer ( $M = 4.34, SE = 1.58$ ) than participants who terminated ( $M = 2.92, SE = .79$ ). As expected, this difference was significant  $t(38.12) = 4.15$ .

On average, participants who internalized felt more placid ( $M = 4.92, SE = 1.44$ ) than participants who terminated ( $M = 3.75, SE = 1.49$ ). As expected, this difference was significant  $t(48) = 2.44$ .

On average, participants who internalized, contrary to our prediction, felt less satisfied ( $M= 5.21$ ,  $SE= 1.51$ ) than participants who terminated ( $M= 5.42$ ,  $SE= 1.56$ ). However, this difference was not significant  $t(48) = -.41$

On average, participants who internalized felt more relaxed ( $M= 4.74$ ,  $SE= 1.92$ ) than participants who terminated ( $M= 3.69$ ,  $SE= 1.37$ ). As expected, this difference was significant  $t(26)= 2.12$ .

On average, participants who internalized felt less interested ( $M= 5.05$ ,  $SE= 1.45$ ) than participants who terminated ( $M= 6.17$ ,  $SE= .58$ ). As expected, this difference was significant  $t(45.19)= -3.86$ .

### *Discussion*

Results match the prediction that participants, who disobeyed the authority in the true sense of the word by terminating the experiment, refused to rationalize or justify the demanded act at all. Accordingly, termination rates were independent from modes of disbursement. Together with the high amounts of average protest, shown in Figure 7, this indicates that the act itself, independently from its severity, was psychologically unacceptable to an extent, which evoked the amount of protest necessary to terminate the experiment. Therefore, participants refused to perform the inconsistent behavior and engaged more strongly in the external instead of the internal conflict. Consequently, as Figure 6 illustrates, twelve of thirteen terminations occurred in the beginning-phase of the experiment. However, it seems that even for participants who decided to strongly engage in the external conflict with the authority figure, disobeying the authority's demand is a rather discomfoting behavior. The reported affectivity states that after the experiment, they felt less placid, less relaxed, less calm, but also more interested than participants who rationalized the act. This result indicates that obedience to an authority figure is indeed a societal norm and that its violation causes dissonance to some extent.

#### **H5.1: There is a negative association between protest and RWA-score**

In order to test this assumption Spearman's correlation coefficient was assessed. No significant relationship between the amount of protest and RWA was found,  $r_s = -.215$ ,  $p < .05$ .

If we look at the two subscales of the RWA, there is no significant relationship between authoritarian submission and the amount of protest,  $r_s = -.235$ ,  $p > .05$ , as well as no significant relationship between conservatism and the amount of protest,  $r_s = -.125$ ,  $p > .05$ .

### **H5.2 There is a negative association between protest and SDO-score**

Spearman's correlation coefficient was assessed and revealed that there was no significant relationship between the amount of protest and SDO-score,  $r_s = .013$ ,  $p > .05$ .

### **H5.3 There is a negative association between protest and conscientiousness**

Spearman's correlation coefficient was assessed and revealed that there was no significant relationship between the amount of protest and conscientiousness,  $r_s = -.140$ ,  $p > .05$ .

### **H5.4 There is a positive relationship between protest and neuroticism**

Spearman's correlation coefficient was assessed and revealed that there was no significant relationship between the amount of protest and neuroticism,  $r_s = .096$ ,  $p > .05$ .

### **H5.5. There is a positive relationship between protest and openness.**

Spearman's correlation coefficient was assessed and revealed that there was no significant relationship between the amount of protest and openness,  $r_s = .057$ ,  $p > .05$ .

### **H5.6 There is a positive relationship between the amount of protest and extraversion.**

Spearman's correlation coefficient was assessed and revealed that there was no significant relationship between the amount of protest and extraversion,  $r_s = -.153$ ,  $p > .05$ .

### **H5.7 There is a negative relationship between the amount of protest and agreeableness.**

Spearman's correlation coefficient was assessed and revealed that there was no significant relationship between the amount of protest and agreeableness,  $r_s = -.045$ ,  $p > .05$ .

Table 4 illustrates the results from H5.

*Table 4.* Correlation between personality traits and the average amount of protest.  
 \*\*Correlation is significant at the 0.01 level. \* Correlation is significant at the 0.05 level.

N= 88	Average Protest	Authoritarian Submission	Conservatism	RWA (total)	SDO	Conscientiousness	Neuroticism	Openness	Extraversion	Agreeableness
Average Protest	1	-.235*	-.125	-.215*	.013	-1.40	.096	.057	-.153	-.045
Authoritarian Submission	-.235*	1	.232*	.842**	.488**	.201	-.091	-.295**	.112	-.019
Conservatism	-.125	.232*	1	.699**	.433*	.170	.145	-.315*	-.126	-.181
RWA (total)	-.215*	.842**	.699**	1	.598**	.194	.012	-.375**	.024	-.131
SDO	0.13	.488**	.433**	.598**	1	.035	-.069	-.112	-.012	-.201
Conscientiousness	-.140	.201	.170	.194	0.35	1	.002	-.094	.019	.288*
Neuroticism	.096	-.091	.145	.012	-.069	.002	1	-.399**	-.072	-.283**
Openness	.057	-.295*	-.315*	-.375**	-.112	-.094	-.399**	1	.197	.185
Extraversion	-.153	.112	-.126	.024	-.012	.019	-.072	.197	1	.300**
Agreeableness	-.045	-.019	-.181	-.131	-.201	.288*	-.283**	.185	.300**	1

### *Discussion*

As results from H5 show, none of the Big-Five personality traits was associated with the average amount of protest. Thus, obedience in the experimental situation was not influenced by these personality traits. However, there was a moderate association between the average amount of protest and RWA- score, as well as a moderate association between the average protest and the tendency to behave submissively to authority figures. No association was found between SDO or conservatism and average protest.

In order to contribute to the understanding of these results, it might be helpful to look at the debate between situationists and personality psychologists, which lasted over four decades and circled around the core question of whether the situation or the personality was the more important factor for explaining behavior. Nowadays, there seems to be no doubt that both, situation and personality, need to be considered when behavior is explained. Most importantly, the interactions between these two factors have widely been acknowledged as relevant for human behavior (Burger, 2010). The different points of views from situationists and personality psychologist can be brought together, if two different levels of behavior analysis are considered. On an aggregated level, where behavior is assessed across a number of situations, personality differences between persons are a solid and powerful factor for the explanation of behavioral differences. Thus, personality traits are useful for explaining behavior on an average level. However, on a level where behavior is assessed in a single situation, personality traits are much less powerful for explaining behavior. This means that the within-person variability from one situation to another is determined more strongly by situational factors (Fleeson and Nofhle, 2009). The debate was also concerned with the issue

of obedience to authority and the potentially negative consequences. While uncritical obedient behavior had been attributed to personality in the 1940s and 1950s, the power of the situation had been widely recognized after the experiments of Milgram, until, in the 70s, a person- by-situation interactions approach was adopted more strongly. In this regard, it has been found that personality traits become less important in so-called strong situations, which refer to “*highly structured, role-governed situations that have clear norms or rules.*” These “*situations can and sometimes do overwhelm personality variables, even in well-intentioned and caring people.*” (Benjamin Jr. and Simpson, 2009, p. 16). Undoubtedly, the situation in the present experiment was such a clearly structured, strong situation as the roles and the hierarchies of the actors were clearly defined for the experimenter and the participant. Thus, this might explain the relative lack of influence by personality traits and indicate once more that under certain circumstances ordinary individuals can be lead to engage in negative behavior, when they are instructed to do so (Burger, 2010). Consequently, regarding the situation within organizational corruption, the hierarchical structure that characterizes the relation between an individual and its supervisor, as well as the relation between a newcomer and his or her veteran co-worker, suggests that the obedient behavior, which leads the individual to perform the initial corrupt act, is likely to be more strongly determined by situational than by personality factors. (Brief, Buttram & Dukerich, 2001; Ashfort and Anand, 2003). Nevertheless, as results indicate, the norm of obedience inherent in such a hierarchical relation between an authority figure and an individual seem to have a stronger influence on those who generally tend to behave submissively to authority figures.

### **3. General Discussion**

In order to analyze the data from the experiment, participants were separated into three different groups: Participants who terminated the experiment, participants who didn't internalize the authority's demand, and participants who internalized the demand. By clustering participants in this way certain patterns in behavior emerged that shed some light on the process of escalation in behavior and its psychological groundwork.

Within the group of participants who terminated the experiment, participants decided to engage strongly in the external conflict with the authority figure in order to reduce or avoid the internal one. The authority's demand evoked an amount of protest, which almost immediately led to the experiment's termination, as twelve of thirteen terminations occurred

during the beginning-phase. Accordingly, the average amount of protest is more than four times higher than in the other groups of participants. As results show, the amount of protest was negatively correlated with the construct of authoritarian submission, which means that participants who expressed higher amounts of protest generally stated a lower tendency to behave submissively to authority figures. As a consequence, the norm of behaving obediently towards an authority figure might have been less salient for these participants, and its violation arousing less dissonance. Thus, they were willing and capable to increase protest against the demanded act, up to the crucial point of termination. In general, the escalation, defined as a decrease of resistance in the face of increasing severity, was naturally not found in this group of participants.

On the other hand, within the group of participants who didn't terminate, differences emerged between participants who internalized and those who didn't internalize. The overall difference between these two groups, besides internalization and non-internalization, was the pattern of average protest throughout the experiment regarding the average amount of protest and its decrease.

Since results show that participants who didn't internalize expressed a constant amount of protest, which did not directly decrease throughout the experiment, it can be concluded that these participants refused to increase the act's psychological acceptance. Subsequently, within this group of participants, dissonance was not reduced by engaging in rationalization, as this would have rendered the act psychologically acceptable and lowered the amount of protest. The lower degree of psychological acceptance also explains why they decided not to internalize the demand in the second-phase, but instead decided to act in accordance with the originally established rules from the instruction.

Instead of rationalizing the act, these participants on average continued to openly demonstrate their resistance throughout the experiment by refusing to perform the act without being explicitly ordered to do so. This, as we argued, functioned as a mode of dissonance reduction, because open resistance against the act- even as subtle as this-, served as a consistent cognition that reduced the perceived discrepancy between behavior and self-concept. Since the inconsistency was to some extent reduced by this consistent behavior, the magnitude of dissonance was too to some extent reduced.

However, as mentioned above, participants who expressed a rather low amount of average protest, as it can be observed in this group, generally also expressed a higher tendency to



behave submissively to authority figures. Therefore, results indicate that this personality trait hindered them to increase their disobedience against the authority over a certain extent. This might have been the case, because the norm to behave obediently towards an authority figure was salient to them, and thus, the violation of this norm might have been more dissonance arousing than performing the demanded inconsistent act. Hence, the unwillingness or incapability of engaging more strongly in the external conflict due to the tendency of behaving submissively might have served as a 'glass-ceiling' of disobedience, because of which the evoked protest could not increase further.

Furthermore, since the performed act was not rendered psychologically acceptable in this group but was still performed, these participants should have experienced more dissonance. Accordingly, they stated a less positive affectivity after the experiment. They felt less satisfied after the experiment than participants who internalized. This means that they cognitively evaluated their behavior less positively than participants who internalized the demand. This indicates that dissonance was reduced less successfully by these participants.

Generally, since these participants refused to accept the demanded act psychologically, which led to rejection of the act as soon as it was not directly and explicitly ordered, the escalation of behavior as it is defined in this study did not take place in this group, because the resistance against the act did not directly decrease. This is an important factor in regard to organizational corruption, because, as we have seen, the internalization of corrupt practices is crucial for the acceptance and spreading of corruption throughout the organization and for the institutionalization of corruption (e.g. Ashfort and Anand, 2003). Individuals, who might behave obediently towards a direct and explicit demand from an authority figure, such as a supervisor, but who refuse to internalize it, and reject it as soon as no direct order is given, might hinder such a spread and maintenance of corruption in an organization.

Finally, participants who internalized the demand expressed on average the least amount of protest, which further decreased directly throughout the experiment. These results indicate an increase of psychological acceptance of the demanded act, which is argued to result from rationalization processes. In order to reduce dissonance, participants who internalized the demand rationalized the act in a manner, which led to its justification and to a constantly rising psychological acceptance- and hence to constantly lower protest. This indication is confirmed by different patterns regarding the different modes of disbursement: In the beginning-phase, higher severity of the act led to lower amounts of protest. This paradoxical

fact can too be explained by rationalization, adapting its strengths to the magnitude of discrepancy between behavior and self as a function of severity of the act.

In general, for participants who internalized the demand, rationalization and the subsequent higher psychological acceptance of the act can not only explain why they showed least, as well as decreasing, resistance against the act throughout the experiment, but also why they decided to internalize it in the second-phase. The decision to perform the act even when the authority is physically absent implies a high psychological acceptance of that act. As a consequence, after the experiment, participants who internalized felt less nervous, more satisfied and stated a more positive general affectivity than participants who didn't internalize, which indicates that they experienced less dissonance. Accordingly, compared to participants who terminated the experiment, they also felt more bored, calmer, more placid and more relaxed. Hence, this group of participants cognitively and affectively evaluated their behavior more positively than the other groups of participants. As results show, within this group of participants, an escalation of behavior was empirically found. Moreover, as Table 1 illustrates, this effect was generally stronger for male than for female participants, because the amount of protest decreased more strongly for male participants throughout the experiment.

### *Limitations*

Generally, the threat to the self, which is created by the inconsistent act in the experiment, differs from the one stemming from behaving immorally, unethically and corruptly. Unlike in cases of corruption, participants in the present study are more likely to feel foolish, inconsistently and incompetently acting, rather than guilty or morally bad. Moreover, the participants in the experiment were not confronted with anticipated negative consequences, resulting from their inconsistent behavior. Nevertheless, even though situation and conflict in the experiment might not be fully comparable to corruption, threats to the self as well as violations of societal norms in general arouse dissonance (Stone and Cooper, 2001). Hence, the reduction of dissonance through rationalization should have comparable effects: justifying the dissonance arousing behavior and subsequently increasing its psychological acceptance.

Furthermore, the first conflict in the experiment (item 4) differs to some extent from the other conflicts. This is because in this situation the authority demands the act for the very first time, and, therefore, it is impossible for participants to already perform the act without being told to do so, as it is the case in the following conflicts. Nevertheless, since this conflict is

comparable for participants who internalized and those who didn't internalize, we included it in our analysis, as it states that the amount of protest at this point is still the same.

### *Conclusion*

In the present study, we achieved to experimentally find a process of escalation of behavior, defined as an increase in severity, ease and pervasiveness of a negative act (Fleming and Zyglidopoulos, 2008). The results confirm the theoretical assumptions regarding an escalation of behavior within cases of corruption: The performance of an act, which was originally rendered negatively, becomes gradually easier, even though the act itself becomes gradually more severe. Moreover, as results indicate, the underlying psychological 'engine' of this mechanism is the arousal of dissonance through an act that is inconsistent with the own sense of self, and the subsequent reduction of dissonance through rationalization, which renders the act psychologically more and more acceptable. Thus, results state that by rationalizing and justifying previous acts that are inconsistent with the self-concept, people are led to engage in increasingly severe acts while at the same time their resistance against the act decreases.

Furthermore, results indicate that the cause that initiated the different patterns of protest in this experiment was the obedient behavior towards an authority figure. The trait of authoritarian submission was the only personality variable, which was related to the amount of protest. The higher a person's tendency to be uncritically submissive to the authority's demand, the less likely it is that he or she will engage in the external conflict with the authority figure by openly protesting. Instead, the higher the authoritarian submission, the more a person tends to behave obediently and engage in the internal conflict in order to avoid contradiction with the authority. However, in highly structured situations, the perceived norms and roles seem to be more influential for behavior, while personality traits are less influential. This means that in the experiment, personality does not determine obedient behavior. Instead, there seems to be an interaction between the situational norm of behaving obediently towards an authority figure and the general personal tendency to behave submissively to such figures.

Thus, as can be seen in the experiment, an external, authoritarian force can have a crucial effect on the initiation of the escalation of behavior, because it pressures the individual into performing an act, it otherwise would not have done, since it is- to some extent- inconsistent with the self- concept and thus the expectancies one holds about oneself and one's behavior. This is an important aspect in regard to organizational corruption, because organizational

environments are often characterized by hierarchical structures between individuals and supervisors or veteran co-workers (Brief, Buttram & Dukerich, 2001; Ashfort and Anand, 2003), and the individual is often confronted with external demands, stemming from these entities that are perceived as authorities (e.g., Nieuwenboer & Kaptein, 2007, Stieglitz, 2010, Baucus, 1994). Therefore, the role of obedient behavior within the escalation of corruption seems to be fundamental, as it can initiate inconsistent behavior and the following escalating consequences through its rationalization. In cases such as ENRON and WORLDCOM, the corrupt practices were not only tolerated, but demanded from higher hierarchical levels to lower ones (Brickey, 2003).

As a consequence, regarding corruption within organizations, our results indicate that a structure of hierarchy that is more horizontal instead of strictly vertical could contribute to impede the escalation, because such a structure would enable individuals to express more protest against an demand that contradicts the own sense of self. Accordingly Ashfort and Anand (2003) noted that within the social cocoon of an organization, individuals may recognize corrupt practices but simply are too powerless to effectively resist and hinder it, and subsequently comply to the acts they condemned. Moreover, in accordance with Zimbardo (1974), these results demonstrate a known fundamental weakness of socialization processes in our society, as the tendency to behave submissively to authority figures, even when one does neither comprehend nor psychologically accept their demands, was a crucial factor for the initiation of the rationalization of the act and the subsequent escalation of behavior. As Cressey (1986) stated regarding corrupt managers, they “should be viewed as conformists, rather than criminals” (p.196).

Finally, regarding ethical training within organizations as an instrument against corruption (e.g., Voliotis, 2011; Rabl, 2011), the process of escalation of behavior, as well as its psychological groundwork, should be integrated into such programs in order to generate a broader consciousness, which could impede the justification of inconsistent acts through rationalization. Moreover, in our opinion, certain factors within organizational and market environment, such as high performance pressure, extreme competition (Baucus, 1994), or incentives for excessive risk taking (Stieglitz, 2010), are likely to negatively interact with the psychological mechanism of dissonance reduction through rationalization, and therefore fuel an escalation of behavior, because justification of deviant behavior is to some extent already inherent in such factors. These notions indicate that organizational corruption cannot be understood as an isolated and independent behavior of single individuals or even single

organizations, such as Enron or WorldCom, but that, instead, it is deeply rooted in market norms and societal socialization processes and closely interacting with these factors. However, as result of the present study illustrate, the incremental escalation of negative behavior, which is also an important factor inherent in organizational corruption, starts at the individual level, and can be triggered by obedience towards an authority figure's demand.

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## Appendix

### Instructions:

Versuchspersonen-Code: \_\_\_\_\_

Instruktion Buchhalter:

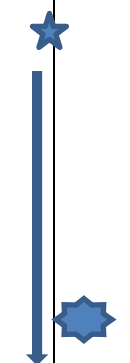
Im folgenden Spiel wurde Ihnen die Rolle des Buchhalters zugeteilt. Ihre Aufgabe ist es, folgende Rechenaufgaben vorzulesen, die von der anderen Versuchsperson gelöst werden sollen. Sie darf dafür Papier und Bleistift verwenden und hat nur einen Antwortversuch. Im Falle einer richtigen Antwort sollen Sie den jeweils der Aufgabe zugeordneten Geldbetrag (siehe beiliegende Tabelle) auszahlen. Bei einer falschen Antwort erfolgt keine Auszahlung. Vermerken Sie für jede Aufgabe den ausgezahlten Betrag in der Spalte „Ausgezahlter Betrag“.

		Richtige Lösung	Ausgezahlter Betrag
<b>Übungsaufgabe A</b>	$3 * 4 =$	12	-
<b>Übungsaufgabe B</b>	$75 - 23 =$	52	-
<b>Aufgabe 1</b>	$2^4 =$	16	€ _____
<b>Aufgabe 2</b>	$500 - 122 =$	378	€ _____
<b>Aufgabe 3</b>	$330 - 55 =$	275	€ _____
<b>Aufgabe 4</b>	$189 / 9 =$	21	€ _____
<b>Aufgabe 5</b>	$3^4 =$	81	€ _____
<b>Aufgabe 6</b>	$\sqrt{49} - 23 =$	-16	€ _____
<b>Aufgabe 7</b>	$224 * 2/8 =$	56	€ _____
<b>Aufgabe 8</b>	$\sqrt{100} * 0.43 =$	4.3	€ _____
<b>Aufgabe 9</b>	$88/11 * 400 =$	3200	€ _____
<b>Aufgabe 10</b>	$13 * 12 =$	156	€ _____
<b>Aufgabe 11</b>	$17 * 6 =$	102	€ _____
<b>Aufgabe 12</b>	$64/4 * 3 =$	48	€ _____
<b>Aufgabe 13</b>	$110/11 * 0.25 =$	2,5	€ _____
<b>Aufgabe 14</b>	$221 - 38 + 7 =$	190	€ _____
<b>Aufgabe 15</b>	$104 - 68 + 57 =$	93	€ _____
<b>Aufgabe 16</b>	$121 / 11 =$	11	€ _____
<b>Aufgabe 17</b>	$89*2 + 24 =$	202	€ _____
<b>Aufgabe 18</b>	$84*2 + 43 =$	211	€ _____
<b>Aufgabe 19</b>	$474 - 17 =$	457	€ _____

Instruktion Schüler:

Im folgenden Spiel wurde Ihnen die Rolle des Schülers zugeteilt. Ihre Aufgabe ist es, folgende Rechenaufgaben vorzulesen, die von der anderen Versuchsperson gelöst werden sollen. Sie dürfen dafür Papier und Bleistift verwenden und haben nur einen Antwortversuch. Im Falle einer richtigen Antwort sollen Sie den jeweils der Aufgabe zugeordneten Geldbetrag auszahlen. Bei einer falschen Antwort erfolgt keine Auszahlung. Vermerken Sie für jede Aufgabe den ausgezahlten Betrag in der Spalte „Ausgezahlter Betrag“.

		Richtige Lösung	Antwort	Erhaltener Betrag
<b>Übungsaufgabe A</b>	$3 * 4 =$	12	12	-
<b>Übungsaufgabe B</b>	$75 - 23 =$	52	52	-
<b>Aufgabe 1</b>	$2^4 =$	16	16	€ _____
<b>Aufgabe 2</b>	$500 - 122 =$	378	378	€ _____
<b>Aufgabe 3</b>	$330 - 55 =$	275	275	€ _____
<b>Aufgabe 4</b>	$189 / 9 =$	21	17	€ _____
<b>Aufgabe 5</b>	$3^4 =$	81	56	€ _____
<b>Aufgabe 6</b>	$\sqrt{49} - 23 =$	-16	-16	€ _____
<b>Aufgabe 7</b>	$224 * 2/8 =$	56	112	€ _____
<b>Aufgabe 8</b>	$\sqrt{100} * 0.43 =$	4.3	43	€ _____
<b>Aufgabe 9</b>	$88/11 * 400 =$	3200	3200	€ _____
<b>Aufgabe 10</b>	$13 * 12 =$	156	126	€ _____
<b>Aufgabe 11</b>	$17 * 6 =$	102	102	€ _____
<b>Aufgabe 12</b>	$64/4 * 3 =$	48	48	€ _____
<b>Aufgabe 13</b>	$110/11 * 0.25 =$	2,5	18,5	€ _____ Protest
<b>Aufgabe 14</b>	$221 - 38 + 7 =$	190	190	€ _____
<b>Aufgabe 15</b>	$104 - 68 + 57 =$	93	85	€ _____ Protest
<b>Aufgabe 16</b>	$121 / 11 =$	11	11	€ _____
<b>Aufgabe 17</b>	$89 * 2 + 24 =$	202	192	€ _____
<b>Aufgabe 18</b>	$84 * 2 + 43 =$	211	k.A.	€ _____
<b>Aufgabe 19</b>	$474 - 17 =$	457	k.A.	€ _____



## Auszahlungstabelle

Aufgabennummer	€			
1	4	13	28	
2	6	14	30	
3	8	15	32	
4	10	16	34	
5	12	17	36	
6	14	18	38	
7	16	19	40	
8	18			
9	20			
10	22			
11	24			
12	26			

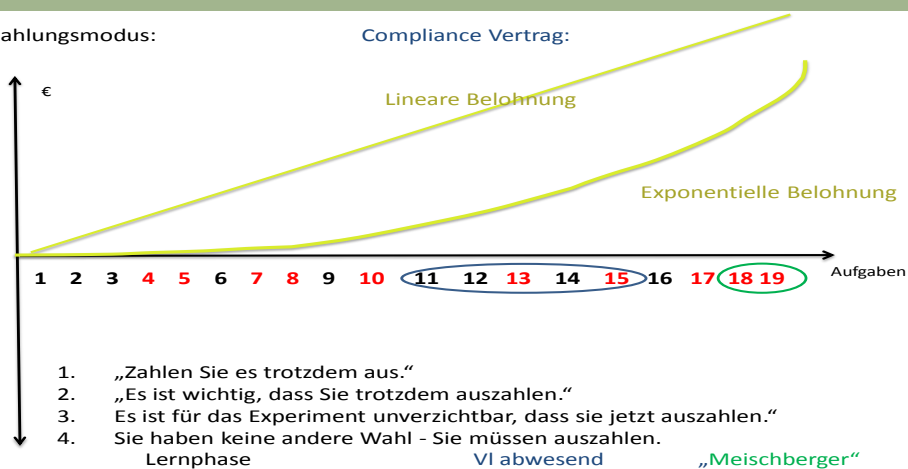
## Auszahlungstabelle

Aufgabennummer	€			
1	1	13	23	
2	1	14	28	
3	1	15	36	
4	2	16	44	
5	2	17	55	
6	2	18	70	
7	3	19	90	
8	3			
9	4			
10	12			
11	15			
12	18			

## VPNcode:

Auszahlungsmodus:

Compliance Vertrag:



## Lebenslauf

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