

INVESTIGATING COGNITIVE MECHANISMS OF OFFENDING AMONG
ADULT AND JUVENILE MALE PRISONERS: SUGGESTIONS FOR
INTERVENTION

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I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

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ABSTRACT

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The present study generally aimed to explain the cognitive mechanisms of offending within the framework of transtheoretical model, by providing differences according to the motivational stages. In doing so, the purpose was to develop suggestions for further interventions. Accordingly, four subsequent studies were conducted. After the adaptation of the questionnaires to Turkish, the second study aimed at determining the factors associated with offence-supportive assumptions, defensive strategies, pros and cons of offending, and stages of change. In the third study, the psychometric properties of the adapted instruments were investigated in the juvenile sample. In the final study, comparisons were employed between adolescent, young adult and adult participants. The findings generally revealed good psychometric properties for the instruments in the adult sample. However, in the juvenile sample, certain flaws were observed for the criminal thinking scale. Regarding the hypothesis testing, the findings generally supported the distinction between offence-supportive assumptions and defensive strategies. In addition, decisional balance was observed to be varying according to the motivational stages. Regarding stages of change, contemplation and action stages were observed to share much in common. However, considerable amount of differences were obtained between these two stages and the initial precontemplation stage. Taking into account the specific characteristics obtained for each stage, a treatment plan is figured out at the end of the study. Finally, it is

observed that, concerns that are specific to adolescence had a strong impact on how the variables were displayed.

Keywords: Criminal Thinking, Decisional Balance, Stages of Change, Transtheoretical Model.

ÖZ

SUÇ DAVRANIŞI İLE İLİŞKİLİ BİLİŞSEL MEKANİZMALARIN YETİŞKİN VE GENÇ ERKEK MAHKUMLAR ÖRNEKLEMLERİNDE ARAŞTIRILMASI: REHABİLİTASYON ÇALIŞMALARI İÇİN ÖNERİLER

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Bu çalışmada, genel olarak, teoriler üstü model çerçevesinde suçu destekleyen bilişsel mekanizmaların farklı değişim basamaklarında nasıl etkili oldukları incelenmiştir. Bu inceleme sonucunda, terapötik müdahaleler için öneriler sunulması amaçlanmıştır. Bu amaç doğrultusunda dört çalışma uygulanmıştır. İlk olarak, yetişkin örnekleminde ölçeklerin Türkçe'ye adaptasyon çalışması gerçekleştirilmiştir. İkinci çalışmada ise, suçu destekleyen varsayımları, suçu savunucu stratejileri, suça yönelik olumlu ve olumsuz atıfları ve değişim basamaklarını açıklayan faktörler belirlenmiştir. Üçüncü çalışmada ölçeklerin genç mahkumlar örnekleminde psikometrik özellikleri belirlenmiş, son çalışmada ise gelişimsel dönemler dikkate alınarak ergen, genç yetişkin ve yetişkin katılımcılar arasında karşılaştırmalar yapılmıştır. Adaptasyon çalışmaları ölçeklere dair genel olarak kabul edilebilir psikometrik özellikler ortaya koymuştur. Ancak, suçu destekleyen düşünceler ölçeği, genç mahkumlar örnekleminde bir takım eksik sonuçlar vermiştir. Bu bulgu, gençlerin bilişsel yapılarının esnekliği çerçevesinde tartışılmıştır. Hipotez testi bulguları, suçu destekleyen varsayımlar ve suçu savunucu stratejiler arasında ayırım yapmayı destekler niteliktedir. Ayrıca, katılımcıların farklı motivasyonel basamaklarda farklı kararsal denge süreçlerine girdikleri gözlemlenmiştir. Suça dair olumsuz atıflar genelde değişmemekle birlikte, suça dair olumlu atıfların katılımcıların duygu durumlarıyla birlikte değişkenlik göstermesi dikkat çekicidir. Değişim basamakları dikkate alındığında, bulgular, “niyet” ve

“harekete geme” basamaklarının genelde ortak zellikler sergiledikleri fakat her iki basamađın da “niyet ncesi” basamaktan nemli derecede ayrıştıđı ortaya konulmuştur. Her bir basamađı aıklayan faktrler dikkate alınarak, alıřmanın sonunda bir klinik mdahale planı sunulmuştur. Son olarak, altta yatan psikolojik mekanizmaların yetiřkinler ve genler iin ortak olduđu, ancak geliřimsel dnemlerin gerektirdiđi ihtiyalar erevesinde biliřsel yapıların sergileniř biimlerinde farklılıklar olduđu belirlenmiřtir.

Anahtar Kelimeler: Suu Destekleyen Dřnceler, Kararsal Denge, Deđiřim Basamakları, Teoriler tesi Model.

TO ALL DESISTERS FROM CRIME AND THEIR HELPERS

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If we were to conduct a study, asking people “what they think of PhD” before and after they attend their final jury, we’d definitely find a significant difference. Before; long long years of education, while everyone finally steps into the “adult” world, finds a “real” job, gets married, has children, settles their lives... what we usually have is a ridiculous salary, in a job where you are supposed to exercise “therapist, client, student, instructor, researcher, and administrative staff” roles everyday. You might find it lovely to go to work with jeans and flip flops, or to have flexible work hours, or being among “intellectual people” all the time, or leaning and learning everyday. I find it lovely too, yet it doesn’t mean that I’ve never suffered. I’ve suffered a lot, like everyone doing PhD. I found myself frequently asking the question “what the hell I’m doing with my life?” Although I could never think of an alternative that would make me happier, I’ve always dreamed of how it could be better. And one of my greatest wish for the future is not to forget those “ideals” and trying hard to make them come true, or at least trying hard not to make the same faults I’ve suffered from. That’s the meaning I find in my PhD process. That’s why, for others “final jury” might seem like a “happy ending”. To me, it seems like “everything is just beginning”, with a tiny little difference in the salary.

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Sınanmadığın günahın masumu sanma kendini...

Sadi Şirazi

CHAPTER 1

INTRODUCTION

The literature of criminal behavior is basically dominated by the studies that seek to explain why people commit crime. Accordingly, in order to understand the complex nature of criminal behavior a wide range of theoretical models, each bringing its unique perspective, have been used. Besides, a number of factors were depicted to be associated with criminality; for instance, age and criminal history were consistently found to predict future recidivism (Bonta, Law, & Hanson, 1998; (Loeber, Farrington, & Stouthamer-Loeber, Moffit, Caspi, White et al., 2003). In addition to the historical, static variables, a number of dynamic factors that were amenable to treatment were also figured out (e.g., substance misuse, deviant peer relations) (Andrews & Bonta, 2006). Recent studies that investigate the causes of criminality gave particular importance to these factors, indicating that mapping out individual criminogenic needs will enhance risk assessment and prevention strategies (Andrews & Bonta, 2006). However, the mechanism through which these factors interact and lead to the criminal behavior is still unknown (Polaschek, 2012).

In an attempt to understand the psychological mechanisms of criminality, cognitive-behavioral accounts proposed the concept of “criminal thinking” (or cognitive distortions) indicating that the criminal behavior is initiated, maintained, and justified through associated pro-criminal beliefs and attitudes (Walters, 2009). Therefore, criminal thinking is defined as one the criminogenic factors that motivate criminal behavior by interacting with other variables (Walters, 2011).

The concept of criminal thinking (or cognitive distortions) have been frequently emphasized as one of the etiological factors basically in the sexual-offending literature (Feelgood, Cortoni, & Thompson, 2005). There are relatively fewer studies in terms of general offending behavior, yet there is a growing interest in investigating the predictive role of criminal thinking on recidivism (Walters, 2011). Besides, the therapeutic interventions within the cognitive-behavioral framework particularly assume that, the change in criminal thinking and the decrease

in the justification of criminal behavior will inevitably lead to reduction in recidivism (Walters, 2006).

The concept of criminal thinking received considerable interest, taking into account both risk assessment and consequent interventions (Walters, 2006). However, at the same time, there are serious controversies in the literature. These debates can be classified under three groups: (1) conceptual, (2) timing, and (3) the extent to which the process of criminal thinking is abnormal.

Regarding the conceptual debate, “antisocial attitudes”, “offence supporting beliefs”, “criminal thinking”, “cognitive distortions”, “offence-supporting motivations”, and “pro-criminal justifications” are frequently used interchangeably (Wallinius, Johansson, Lardén, & Dernevik, 2011). Although, by definition, these concepts possess similar functions (e.g., reduction of guilt), as indicated by (Maruna & Mann, 2006), the level of cognitive structures the utilized concept refers to should be particularly made clear. It’s commonly accepted that beliefs, assumptions and justifications are, although inter-related, organized in different levels of the cognitive system (Beck, 1995; Young, 1999; Young, Klosko, & Weishaar, 2003). Accordingly, attitudes, beliefs, and the assumptions are rather enduring patterns while justification is a temporal strategy (Maruna & Mann, 2006). Although they might convey similar meanings, they develop at different time sequences, and they operate on different mechanisms. Correspondingly, in terms of the “timing” debate, it is not clear in the literature whether offence-supportive cognitions and justifications lead to criminality or vice versa (Stanko, 2003). Walters (2009) further anticipated that the criminal thinking process might change according to the temporal context, thus it is highly probable that people might engage into different cognitive processes before and after the criminal event and/or imprisonment. In fact, theories have been criticized for explaining the role of cognitions on the development of criminal behavior but lacking explanations for the maintenance of (Walters, 2006) and desistance from criminality (Giordano, Cernkovich, & Rudolph, 2002; Maruna, 2001). Maruna and Mann (2006) asserted that it is methodologically impossible to test the impact of criminal thinking in the initiation of criminal activity. Still, it seems highly reasonable to organize the theoretical explanations according to different time sequences (i.e., before and after criminal event) in order to have a better

understanding of the role of cognitions on the initiation to, maintenance of, and desistance from criminality.

The final controversy that is related to the cognitions associated with criminality is the extent to which the process of criminal thinking is abnormal. Accordingly, giving reference to the basic work of Yochelson and Samenow (1977), the psychiatrists who listed 52 thinking errors related to violence and criminality, criminal thinking process is commonly cited as “distorted” or “impaired” (Hoffmann, 2011; Sharp, 2000 as cited in Maruna & Mann, 2006). However, there are challenging oppositions stating that these processes are normal information-processing mechanisms operating in the context of crime (Maruna & Mann, 2006; Stanko, 2003). It is noteworthy to quote from Maruna and Mann (2006) at length here in that, how a pathologizing point of view might overlook the problem is better illustrated:

(...) criminological psychology may be guilty of committing something akin to the “fundamental attribution error” (Jones & Harris, 1967) writ large. That is, many of the rationalizations and minimizations offered by offenders may be situational rather than dispositional (see Heckert & Gondolf, 2000). When challenged about having done something wrong, all of us reasonably account for our own actions as being influenced by multiple, external and internal factors. Yet, we pathologize prisoners and probationers for doing the same thing (...) that places them in a no-win situation: If they make excuses for what they did, they are deemed to be criminal types who engage in criminal thinking. If, however, they were to take full responsibility for their offences – claiming they committed some awful offence purely ‘because they wanted to’ and because that is the ‘type of person’ they are – then they are, by definition, criminal types as well (p.158).

Stanko (2003) further reported that having a phenomenological perspective (that takes individual perceptions and experiences into account) rather than a psychopathological point of view to criminality will enhance our understanding of the mechanisms through which people engage in criminal behavior. The debate of “abnormality” becomes more challenging when taking into account the goals of the rehabilitation programs. By way of illustration, it is frequently recommended that the aim of intervention programs should be to identify and challenge the cognitive

distortions and justifications for offending (Butler & Maruna, 2009) with the assumption that for the person to be treated (and not to re-offend), s/he should undertake the responsibility of his/her behavior (Maruna & Mann, 2006). However, it is not clear in the literature whether reduction in criminal thinking consequently leads to reduction in recidivism rates (Walters, 2012). As also stated by Maruna and Mann (2006) there is no clear answer to the questions related to how this change occurs and which mechanisms are involved within the process.

It is beyond the scope of the present study to fully answer the aforementioned controversies. Still, in order to make a clear picture of the issue, the introduction section is organized accordingly. Therefore, the cognitive structures of criminal thinking (i.e., beliefs and justifications) will be mentioned distinctively within a chronological framework. In particular, the first section of the introduction part begins with the theoretical accounts that explain the development of possible beliefs that reinforce the criminal behavior in the long run. Secondly, the decision-making process of criminality will be mentioned and the roles of the existing schemata will be exemplified. Then, the justification process after the criminal event will be explained. The second section will elaborate the issue in terms of juvenile criminality and finally, the cognitive mechanism associated with the desistance process will be mentioned in the third section.

1.1. Cognitive Mechanisms Associated with Adult Criminality

1.1.1. Offence-Supportive Beliefs: The Mechanism

According to the cognitive-behavioral framework, a particular behavior is characterized and maintained by attitudes, values, and the assumptions that are generated by the core beliefs (Beck, 1995). According to the cognitive-behavioral approach, core beliefs are developed through early childhood experiences, when the child develops assumptions about the self, the others, and the world while s/he is interacting with his/her parents, as well as other people in the meso (e.g., home, school) and macro environments (e.g., culture). These self-conceptions continue developing through adolescence and become relatively stable during adulthood in order to form “a theory of the self” (Moshman, 2004). The criminal behavior hasn’t been investigated within a comprehensive cognitive framework hitherto (Walters, 2009), yet the cognitive model of antisocial personality disorder (ASPD) could be

considered as beneficial in understanding the belief system underlying criminality (Beck, Freeman, & Davis, 2004). Accordingly, the core beliefs of ASPD patients generally reflect a preoccupation with self-enhancement and malevolent aspects of other people as well as the world (Beck et al., 2004; Rasmussen, 2005). These beliefs in turn lead to certain assumptions that justify the antisocial behavior in the future (e.g., personal infallibility, Beck et al., 2004).

According to the lifestyle theory of crime, Walters (2006, 2009) further claimed that the belief system organizes the information related to criminality, through schemes (basic knowledge units) and schematic sub-networks (through which the schemes interact with each other). Accordingly, schemes convey information related to the process (i.e., motivations, opportunities, outcome expectancies) and the content (i.e., the act, the target) of the criminal behavior (Walters, 2006, 2009). In addition, a number of researchers mentioned about “implicit theories” particularly in the context of sexual offenders (e.g., Ward, 2000). Implicit theory is a highly related concept to “schema” or “core-belief”, indicating that when they are activated, they guide the information processing in a self-fulfilling nature (Gannon, 2009; Polaschek, Calvert, & Gannon, 2009). Gannon (2009) further noted about an important caveat that, although there seems to be evidence related to the higher-order cognitive mechanisms of sexual offending, it is still not clear in the literature that the statements uttered by the offenders might also reflect a deceptive attitude rather than underlying schemas.

In order to grasp the mechanism of cognitive processes associated with criminality, it is important to understand the context in which the offence-supportive core beliefs are developed. Several researchers noted the importance of the elements within the family and social environment that has a long term impact on offending. Accordingly, for example, one might be interested in examining how an abusive family environment (e.g., Schema Therapy Approach, Young et al., 2003), perception of the environment as “deprived” (e.g., Relative Deprivation Theory, Young, 2001), or the inequalities between the classes as well as the ethnicity and gender issues (Critical Criminology, Matthews, 2012) lead to the generation of particular core beliefs. In the next section, the possible contents of these beliefs, as well as their association with criminality will be described in the light of literature.

1.1.2. Offence-Supportive Beliefs: The Content

As indicated before, the cognitive model of criminal behavior is not fully developed and empirically studied yet (Walters, 2009). Still, various theoretical explanations of criminality mention about the role of cognitions (Walters, 2006). Related to the content of these cognitions, it is possible to group the studies under three broad titles: (1) Power, (2) Justice, and (3) Security.

1.1.2.1. Power

Studies investigating cognitions among sex offenders frequently make a distinction between “offence-specific cognitions” and “general, pro-criminal cognitions” (Gannon, 2009), suggesting a causal link between both of these cognitive structures and offending (Ward, 2000). Furthermore, there is strong support in the literature claiming that offence-specific attitudes are linked to “power-related beliefs” in terms of sexual offences (DeKeseredy, Rogness, & Schwartz, 2004; Gannon, 2009) and general offending behavior (Barry, 2007).

The issue of power and its association with offence-supportive cognitions is predominantly proposed by the “Masculinity Approach” to criminality. Taking into account that the majority of criminal acts are committed by men, Masculinity approach emphasizes certain themes embedded in male gender roles and their contribution to offending. Accordingly, exercising “power”, “domination”, and “control” appears to be common motivations in various types of criminal acts (Messerschmidt & Tomsen, 2012), particularly in violence against women (Lindsey, 1997 as cited in Bouffard, 2010). Besides, researchers signaled “threats to masculinity” (i.e., protecting honor, verbal assaults against female spouses) as a triggering factor of violence among different men (Messerschmidt, 2000; Mullins, 2006; Polk, 1994). Masculinity theory suggests that the power theme in male gender roles doesn’t appear only with respect to “domination of women”, but also in terms of “economic and social power” that could be challenged with perceived economic and social weakness (Messerschmidt & Tomsen, 2012). Furthermore, in an ethnographic study conducted with non-violent street offenders, Copes and Hochstetler (2003) described “autonomy” as another power related theme attached to masculinity. Accordingly, “being capable of providing for oneself”, but at the same

time “being unrestricted from the concerns of routine daily life” were defined as basic motivations through which the participants valued impulsivity, risk-taking, and “making easy money”. The authors further claimed that there is an age difference in terms of meanings attached to autonomy; while the older participants emphasized “opposition to the passive acceptance of a mundane and humble daily existence and juvenile styles of acting out” the younger participants “focused on distinguishing themselves from cautious and weak qualities stereotypically attributed to women” (Copes & Hochstetler, 2003, p. 294). Therefore, “strength” seems to be another meaning attached to masculinity, though its definition might vary according to age. It is obvious in these studies that, the elevated themes of power are apparent not only in “how offenders construct” but also in “how they justify” their criminal acts (Willott, Griffin, & Torrance, 2008 as cited in Messerschmidt & Tomsen, 2012).

Power related beliefs are partly related to the characteristics of narcissistic personality. In fact, there is sound evidence supporting the notion that an inflated self-esteem and view of personal superiority makes the person vulnerable to the threats directed at the self, which in turn might generate aggressive responses (Baumeister, Bushman, & Campbell, 2000). Also, in their study Butler and Maruna (2009) stated that individuals highly value being treated fairly and being respected. This study is important in that they investigated the impact of disrespect on prisoners’ aggression, and they further suggested that when people perceived an obvious disrespect and unfair treatment from others, through the operation of neutralization and justification strategies, they come to a belief that they are “right” to engage in violence. Butler and Maruna also claimed that when people did not perceive an open threat to their self-worth, their justifications diminish and they resort less to violence (2009). In parallel with these suggestions, Howells (2009) indicated that the link between disrespect and aggressions is highly relevant to the “themes of shame, need for dominance, defending honor, and anger responses to self-esteem threats in narcissism” (p. 287). Therefore it is reasonable to assume that a view of self as “powerless”, together with the view of world as “having power is an inevitable necessity for survival” might be an underlying core belief. However, there is no empirical research that tested this assumption.

1.1.2.2. Justice

Issues related to justice are another theme that appears to be common among offenders. Accordingly, view of self as the object of unfair treatment and view of others and/or the world as unjust are frequently reported to be associated with criminality (Lovaš, 1995, as cited in Žitný & Halama, 2011). Rattner, Yagil, and Sherman-Segal (2003) further mentioned that, aside from a general belief of injustice, for the person to break the law s/he must also be holding a belief that s/he is entitled to break it. Hence, the person might have selected “administering justice” (via criminality) as a strategy to deal with his/her feeling of “being object of injustice”.

Žitný and Halama (2011) elaborated associated factors with “sensitivity to injustice”. Accordingly, individuals with high level of sensitivity to injustice were observed to be feeling themselves as more open to threats and that they were unable to cope with their negative emotions. Moreover, Žitný and Halama reported that people with low self-esteem tended to perceive unfair treatments more frequently (2011), possibly because of their victimization schema (Baumeister, Campbell, Krueger, & Vohs, 2003). On the other hand, although people with high self-esteem reported fewer injustices, when they did, they were found to react with more anger (Žitný & Halama, 2011). The authors further found out that high level of neuroticism and low level of agreeableness were associated personality traits with sensitivity to injustice. However, locus of control moderated this relationship, indicating that while external locus of control increased the effects of neuroticism and low level of agreeableness, internal locus of control had a buffering role (Žitný & Halama, 2011).

1.1.2.3. Security

Perception of others and the world as malevolent, dangerous, and not trustworthy and perception of the self as unable to cope with this insecurity is another theme that consistently emerges in studies investigating cognitive structures of various offenders (Ward & Keenan, 1999). In fact, these beliefs are commonly cited as the main content of antisocial schemas (Beck et al., 2004). It’s assumed that, when the person has a belief regarding others and the world as dangerous, s/he might develop certain attitudes (e.g., perception of others as deceptive) (Malamuth &

Brown, 1994) and defensive strategies to deal with the insecurity and self-protection (e.g., “beat or be beaten”) (Polaschek et al., 2009). These assumptions and rules might also be related to (or learned within) a particular context. For instance, Irwin and Cressey (1962) reported that within the norms of prison culture, individuals learn “not to inform or exploit another inmate” and “be weak or be a sucker” (p. 145).

In a series of projects that aimed to investigate the meanings attached to violence in different contexts (Stanko, 2003), the authors generally discussed that there is not a single definition or hierarchical classification of violence (i.e., verbal assaults, bullying, physical harm, intimidation, spreading rumor) and each individual might experience and define it differently. Moreover, the authors drew attention to their observation that most of the perpetrators of violence perceived themselves as “victims” who were ruled by circumstances in engaging violence (Stanko, 2003). This suggestion is highly related to the themes generated from the “power”, “justice”, and “security” schemas (that the person is powerless, object/victim of unfair treatment, defenseless, and disadvantaged). Besides, it is suggested in one of these studies that, when violence is viewed as a norm in a given context and becomes a strategy for solving problems or self-protection, the other party will be in a position of victim, who in turn considers that s/he has to (and is right to) defend himself/herself through violence. Thus, the process inevitably leads to a vicious circle and normalized in advance (Edgar, Martin, & O’Donnell, 2003). Similar situation is also mentioned by Polizzi (2011) in the context of urban gang violence.

Proponents of Implicit Theory (Gannon, 2009; Polaschek et al., 2009) provided support for the presence of offence-supportive beliefs that have contents related to issues of “power” (e.g., preoccupation with gaining status and power), “justice” (e.g., sense of being entitled to administer justice and to judge and punish others), and “insecurity” (e.g., beat or be beaten). However, it is not clear whether these themes are derived from relatively stable beliefs or utilized as temporal strategies. Besides, since the literature lacks systematic empirical studies related to the cognitive mechanisms of offending, it’s highly possible that there might be other core-beliefs as well, aside from issues of power, justice, and security.

1.1.3. A Threat to the System: Activation of Beliefs

Cognitive-behavioral psychology presumes that for the core beliefs (and related rules and the assumptions) to become activated and subsequently generate the behavior, an internal or external stimulus (i.e., threat) must be perceived and interpreted in parallel with the associated beliefs (Beck, 1995). Therefore, in the present section, the process that operates in between perception of a threat and generation of criminal behavior will be explained.

1.1.3.1. The Nature of Perceived Threat

In one of the studies investigating the reasons of violence in prison, Edgar and colleagues (2003) formulated a process during which a triggering event occurs that is perceived as a threat to one's needs (e.g., security, privacy, respect). The authors further claimed that an immediate assessment of power imbalance interacted with the process. Accordingly, "demonstrating toughness", "self-defense", "giving punishment or retaliation", and "otherwise others would think that I'm weak" emerged as general reasons provided by the participants in explaining their violent behavior. This finding is an example for the assumption that, the individual might choose violence and/or criminal behavior as a response to a perceived threat which is relevant to the core beliefs.

According to the Conservation of Resources Model (COR, Hobfoll, 2001), the person experiences stress when s/he perceives a threat to the resources that s/he is striving to sustain and when s/he is lacking means to re-supply them. In parallel with the suggestion of the COR Model, General Strain Theory (GST, Agnew, 1992) presumes that individuals possess a variety of goals stemming from "self-enhancing" (seeking for one's own dominance and success) or "self-transcendent" (concerning for the welfare of others) values and attitudes (Schwartz, 1992). A threat or obstacle (i.e., strains) in achieving the self-enhancing goals (Agnew, 1992) might produce feelings of fear, anger, and frustration (Konty, 2005) which in turn need to be regulated via the promotion of social interests (Agnew, 1992). In the light of these theories it can be concluded that, criminal behavior is understood as a maladaptive coping response given in return of the threats to the self-enhancing values (Brezina, 1996). Script Theory (Huesmann, 1986, 1998) further holds the notion that

aggression and violence might also be learned as a “problem-solving strategy” via social learning. However, it is suggested in the literature that not everyone who perceives a threat to his/her self-enhancing values engage in aggressive and/or criminal behavior and that there are certain emotional and cognitive processes that intervene with the process (Berkowitz, 1989).

1.1.3.2. Intervening Emotional Processes

Day (2009) discussed that negative emotional states (e.g., anger, absence of emotion as it is in psychopathy) or maladaptive ways of emotion regulation (e.g., over-controlling emotions) might be criminogenic and suggested treatment strategies aiming to effectively regulate these emotions. In addition to negative emotions, positive emotions are occasionally referred to be leading to deviant behaviors as well, indicating that emotion regulation becomes more critical than the type of emotion experiences (Song, Graham, Susman, & Sohn, 2012). Gross and Thompson (2007) defined emotion regulation as the set of strategies utilized to modify the emotional state in order to achieve certain goals. Accordingly, emotion regulation strategies might be classified under three groups; problem solving, avoidance, and seeking social support (Conner-Smith & Flachsbart, 2007; Lazarus & Folkman, 1984), with the effectiveness of each strategy determined by the context and availability of resources (Song, et al., 2012). Studies that considered emotion regulation in the context of criminality basically focused on the impact of anger. As indicated by Agnew (1992) and Faupel, Herrick, and Sharp (2011) anger averts the regulatory process by inhibiting one’s tolerance for injuries and insults, preparing the individual for action, and facilitating the desire for retaliation and revenge. Furthermore, Novaco (2011) underlined that “anger is neither necessary nor sufficient for violence, but it is part of the confluence of multi-level risk factors affecting violent behavior” (p. 657), discussing on how anger manipulates the cognitive process and leads the individual to interpret the events as a threat to the existing schemas.

1.1.3.3. Intervening Cognitive Processes

Social-Information Processing Model, which has been supported by the studies conducted with both adults and young people, provides a framework for

understanding the cognitive mechanisms between the enactment of a threat and the generation of criminal response. Accordingly, after the encoding process, the internal and external cues are interpreted via existing knowledge structures (Gannon, 2009). This assumption is also supported by social cognition theory (Hoffmann, 2011) and cognitive neo-association theory (Berkowitz, 1984). Drawing a link between the assumptions of COR and GST Models and the aforementioned cognitive accounts, it's highly reasonable to hypothesize that the nature of the threat that leads to the criminal behavior might be associated with the specific beliefs that the individual holds. Accordingly, the perception of the self as lack of power, security, and/or object of unfair treatment might lead to the preoccupation with gaining or sustaining associated self-enhancing resources. A threat to these resources might lead the person to generate criminal behavior via activating certain beliefs. However, emotional regulation as well as effective coping strategies might buffer this process (Day, 2009).

Social-Information Processing Model further proposed that, in terms of selecting criminality as a strategy to respond back to the perceived threats, the individual engages into a decision-making process through which a desired response (i.e., criminal behavior) is chosen after accounting for the outcome expectancies (Gannon, 2009). This process of decision-making is elaborated in detail in the next section.

1.1.4. Motivation to Offend: A Decision Making Process

1.1.4.1. Theoretical Accounts

Stemming from classical criminological assumptions which highlight the self-serving desire of human-beings (i.e., maximizing pleasure and minimizing pain), Rational Choice Theory (RCT, Tillyer, 2011) indicates that, in order to make a *decision* to commit crime, the person has to be perceiving that certain advantages are outweighing the consequences. The decision making process does not necessarily operate at the conscious level; given the highly stressful context of crime, the person might be relying on his/her experiences and thus engage in similar patterns that worked in the past. Therefore, the individual should be *motivated* for achieving certain *goals* generated from his/her needs and *beliefs*, and s/he chooses to engage in criminal behavior since s/he thinks that, after weighing perceived costs and benefits,

it is the best option to achieve these goals (2011, emphasis made by the author). RCT highlights that the costs and benefits are not necessarily related to material gains and punishment. Anything that is *meaningful* for the person (e.g., increase in self-esteem, exercising authority, rejection, changes in the life style) might be regarded as a cost or benefit (2011, emphasis made by the author). RCT further indicates that the decision process of assessing costs and benefits might be influenced by several factors (such as drugs, alcohol, emotional arousal, and perceived social pressure) (2011) (emphasizes made by author).

Different from other theoretical accounts, Social Control Theory (SCT, Matza, 1964 as cited in Agnew, 2011) tries to explain how individuals decide not to commit crime and which factors prevent them from offending. Thus, linking the discussion with the “assessment of costs/benefits” SCT underlines the impact of fear of consequences outweighing the benefits as an important motivation that prevents people from offending. Therefore the person might fear of losing conventional elements of social life (e.g., strong social bonds, occupational or educational achievements, reputation, plans for future, and social status) and some people who have more commitment to a conventional life style might have more to lose (Agnew, 2011).

Copes and Hochstetler (2003) reported that the decision making process further facilitated by the conversations made within the pro-criminal environment (e.g., tales of past criminal success, a super optimism that is elevated through exaggerations of expected rewards of an offence, diminishing the potential risks, presenting a social pressure over the “hesitant”, and encouraging statements like “we can do it!”).

Another theoretical account that highlights the decision-making process underlying criminal behavior is Social Learning Theory (SLT, Jennings & Akers, 2011). SLT emphasizes that, the gains and losses associated with criminal acts are learned thorough social relations (i.e., family, peer groups, neighbors, authority figures, religious figures) in interaction with various situational factors (Burgess & Akers, 1966 as cited in Jennings & Akers, 2011). Accordingly, the basic learning principles apply during the process of differential association; indicating that deviant behavior or life style might be positively reinforced (e.g., gaining status among

peers), negatively reinforced (e.g., escaping from abuse at home), positively punished (throwing up after using drugs), and/or negatively punished (e.g., loss of freedom via incarceration) (Jennings & Akers, 2011). Thus, for a person to engage or remain in deviant behavioral patterns, s/he must anticipate relatively greater reinforcement than punishment in the short or long run.

When offenders are asked to state their reasons of engaging in a deviant behavior, they provide a variety of statements. These statements, along with their “justification” and “normalization” purposes, generally include information regarding the expected rewards of offending (i.e., pros). For instance, drug users frequently define the relief from physical and psychological pain as a rewarding experience (Bahr, 2011). In another study that investigated the self-reported reasons of committing embezzlement, participants provided responses related to trivialization of the act (e.g., “I’ve just borrowed”), as well as rewarding outcome expectancies (e.g., social uplift, family welfare) (Morris, 2011). “Financial gains” seems to be the main motivation underlying most of the non-violent offences (i.e., embezzlement, theft, burglary, arson). On the other hand, researchers reported “excitement”, “social pressure” (or being accepted by the peers), and “exercising power and control” as other common motivations reported by non-violent offenders (Goetz, 2011; Hawdon, 2011). Yet, it should be noted that a criminal act might include various motivations, a person who engages in one type of criminal act does not necessarily commit only that specific type of crime, and a person might be accused of more than one type of crime at the same time period (Copes & Cherbonneau, 2011). Therefore, it is highly difficult to derive specific reasons for each criminal act. However, the underlying mechanism seems to be common for most of the criminal behaviors.

1.1.4.2. Decisional Balance

The concept of “decisional balance” is highly relevant to the discussion of “costs/benefits assessment”. Janis and Mann (1968, 1977) were the first to introduce the concept, defining it as a representation of cognitive and motivational aspects of human decision making. They proposed that during the decision making process, individuals assess gains and losses as a function of “utilitarian (i.e., instrumental) and non-utilitarian (i.e., issues related to esteem, approval, and ego-ideal) concerns” in interaction with “self and others”. Therefore, they proposed four major motivations

in decision-making: (1) Utilitarian gains and losses for the self, (2) Utilitarian gains and losses for the others, (3) Non-utilitarian gains and losses for the self, (4) Non-utilitarian gains and losses for the others. Velicer, DiClemente, Prochaska, and Brandenburg (1985) further elaborated the concept of decisional-balance and applied the model to smoking behavior. They found out that gains (i.e., pros) and losses (i.e., cons) are not necessarily opposite concepts, thus suggesting a quadripartite relation.

Developing strategies for interventions taking into consideration the cost and benefit analysis is rather a controversial issue. In general, the crime control policies applied the strategy of changing the direction of the balance to its opposite, where cons will outweigh the pros (i.e., by increasing punishment) (Cornish & Clarke, 1986). However, by introducing the concept of “subjective expected utility”, Edwards (1961) proposed that behavioral change occurs when the individuals perceive more gains of desisting a behavior (rather than the perception of increased negative consequences for persisting in a behavior). Furthermore, Loughran, Paternoster, and Weiss (2012) discussed that the assessment of costs and benefits is also affected by the differences in time that these positive and negative outcomes will be achieved. Accordingly, individuals have a tendency to prefer short-term rewards over long-terms, though they are aware that they will gain less or lose more in the long-run, a concept known as “hyperbolic discounting”. The authors further noted that “gains are hyperbolically discounted to a greater degree than are costs, implying an asymmetry between the two” (p. 616), providing a converging evidence for the suggestions of Edwards (1961). However, there’s a considerable gap in the literature regarding the application of how to alter decisional balance in terms of criminal behavior.

1.1.5. After the Crime: Justification of Criminal Behavior

Is it possible to justify, normalize, or trivialize a criminal act? Although it is beyond the expectations of common sense, the literature on criminal behavior as well as practical knowledge suggests that offenders frequently report either causal attributions or their reasons for committing a particular crime (Maruna & Mann, 2006).

It’s debated in the literature whether justification leads to offending or vice versa (Maruna & Mann, 2006). For instance, Katz (1988 as cited in Copes &

Hochstetler, 2003) indicated that, after making the criminal identity explicit to the social network, the person should behave accordingly in order not to lose credibility. Therefore, it is reasonable to assume that justification process might be beginning long before being convicted, during the process of engaging in criminal activity. Although it is methodologically almost impossible to assess the role of justifications in the initial stage of engaging in criminal behavior (Maruna & Mann, 2006), there are theoretical accounts that support this suggestion (e.g., neutralization theory, Sykes & Matza, 1957). Still, retrospective and self-report data, as well as follow-up studies that investigate recidivism suggest that justification process operates both before and after conviction.

1.1.5.1. Mechanism

Theoretical models dealing with the self (e.g., cognitive dissonance, Festinger, 1957; self-affirmation, Steele, 1988, self-serving bias, Miller & Ross, 1975) consistently report that maintaining the positive self-concept is a crucial motivation, thus individuals strive to protect and defend their self-worth when they perceive a self-threat. Similarly, Moshman (2004) suggested that, a person's behavior might occasionally be incompatible with his/her identity. In this case, the person might engage in self-serving strategies without attempting to change neither the theory nor the behavior. Whether or not engaging in criminal behavior is incompatible with offenders' self-conceptions is not known. However, taking into account the premises of cognitive-dissonance (Festinger, 1957) and self-affirmation models (Steele, 1988), it's reasonable to assume that offenders might be engaging in self-serving strategies as well, since it is psychologically harder to accept that one has done something stupid and/or morally wrong (Holland, Meertens, & van Vugt, 2002).

A number of moderator variables affecting the justification process were suggested in the literature. Accordingly, high self-esteem, being self-focused (Holland et al., 2002), the importance of the task, positive affect, and achievement motivation (Miller & Ross, 1975) might lead people to engage in more defensive strategies and self-serving bias to protect their positive self-worth.

1.1.5.2. Strategies

Weiner, Folkes, Amirkham, and Verette (1987) suggested that making an excuse for a criminal behavior involves three strategies; (1) externality (making causal attribution to external circumstances), (2) uncontrollability (that the person was unable to control himself/herself or certain external factors), and (3) unintentionality (that the person's initial intention was not to enact the criminal act and/or was not to give harm. The suggestions of Weiner and colleagues (1987) were also empirically supported. For instance, in terms of externality, denial of responsibility and attribution of responsibility to external sources (Holland, et al., 2002) is a powerful strategy for reducing feelings of dissonance. Regarding uncontrollability, Senol-Durak & Gencoz (2010) reported that it is one of the common attributions observed among offenders. Accordingly, in explaining their criminal behaviors, they tend to attribute blame onto other people and circumstances that were beyond their control. However, they are not "complete external attributers" in the sense that, they tend to make internal attributions for their successes which is in parallel with the basic premise of self-serving bias that, in general people tend to make external attributions for their failures, and internal attributions for their successes (Miller & Ross, 1975). Finally, in terms of unintentionality, converging evidence was observed in two studies that were conducted with different samples and contexts (i.e., parental violence against children, Hazel, Ghate, Creighton, Field, & Finch, 2003 and violent conflicts in prison, Edgar et al., 2003). Accordingly, the perpetrators in both studies reported that they had "right" to employ physical force and that they did not actually (or intended to) "harm" their victims. Snyder and Higgins (1988) further claimed that avoiding from personal responsibility is the basic function of justifications. Accordingly, the strategies employed for justifying a criminal behavior involve relying on to the sources that are distant to the self as far as possible. Therefore, people make justifications using external and unstable cues (Maruna & Mann, 2006).

Holland and colleagues (2002) outlined two basic strategies of self-justification. Accordingly, while internal self-justification strategies constitute attitudinal statements (e.g., denial or trivialization of the negative consequences), external strategies aim to alleviate personal responsibility (e.g., lack of personal

control, social pressure, designating an external source as being responsible). The authors further claimed that people might engage in external self-justification strategies when they encounter with the feelings of moral dissonance (i.e., the feeling that the consequences of their behaviors harmed others), whereas they might utilize from internal self-justification strategies when they feel hedonistic dissonance (i.e., the feeling that their behaviors resulted in negative consequences for themselves).

Possible strategies of justification intending to decrease self-sanctioning and feelings of guilt were also pronounced by Bandura (1990) and Sykes and Matza (1957). Accordingly, in his theory of Moral Disengagement, Bandura (1990) reported certain strategies that people might engage in (i.e., displacement of responsibility, diffusion of responsibility, distorting the consequences of an action, dehumanizing the victim, and assuming the role of victim for one's self). Similarly, in Neutralization Theory, Sykes and Matza (1957) included "denial of responsibility" within their definition of neutralization strategies. They further claimed that people might "deny the injury", "deny the victim", "condemn the condemners", and "appeal to higher loyalties" in order to justify their acts.

1.1.6. Putting it Together: A Heuristic Formulation of Cognitive Mechanisms of Offending

In the light of the aforementioned literature, the cognitive mechanisms of offending is formulated and summarized in Figure 1.1. Accordingly, during the identity formation periods (i.e., childhood and adolescence) various factors in the family environment, meso, and macro environment are suggested to contribute to the formation of particular schemas that might be related to criminality. These schemas are basically suggested to organize the information related to the self, the others, and the world and assumed to convey meanings related to power, justice, and security. The individual formulates certain assumptions and rules in accordance with these schemas, which in turn lead to the development of strategies to deal with the situations that trigger these schemas. Criminality and/or violence might be one of these strategies that are learned during social interactions with others. When a threat occurs, certain negative emotions are triggered and schemas as well as related assumptions become activated, leading the individual to consider criminality and/or violence as a possible strategy to deal with the threat. At this time, criminality might

seem to be advantageous, but the person should be evaluating certain negative consequences of offending as well. Various factors are suggested to be facilitating (e.g., intoxication) or inhibiting (e.g., effective coping) during this process. After the criminal event, the individual generally encounters with the negative consequences (e.g., imprisonment) which produces a state of dissonance as the process is threatening for the self-worth. Therefore, the individual engages in certain justification strategies to relieve the dissonance. However, these justification strategies are supportive of the criminal behavior in nature, contributing to be demotivated for desisting from criminality.

OFFENCE SUPPORTIVE BELIEFS

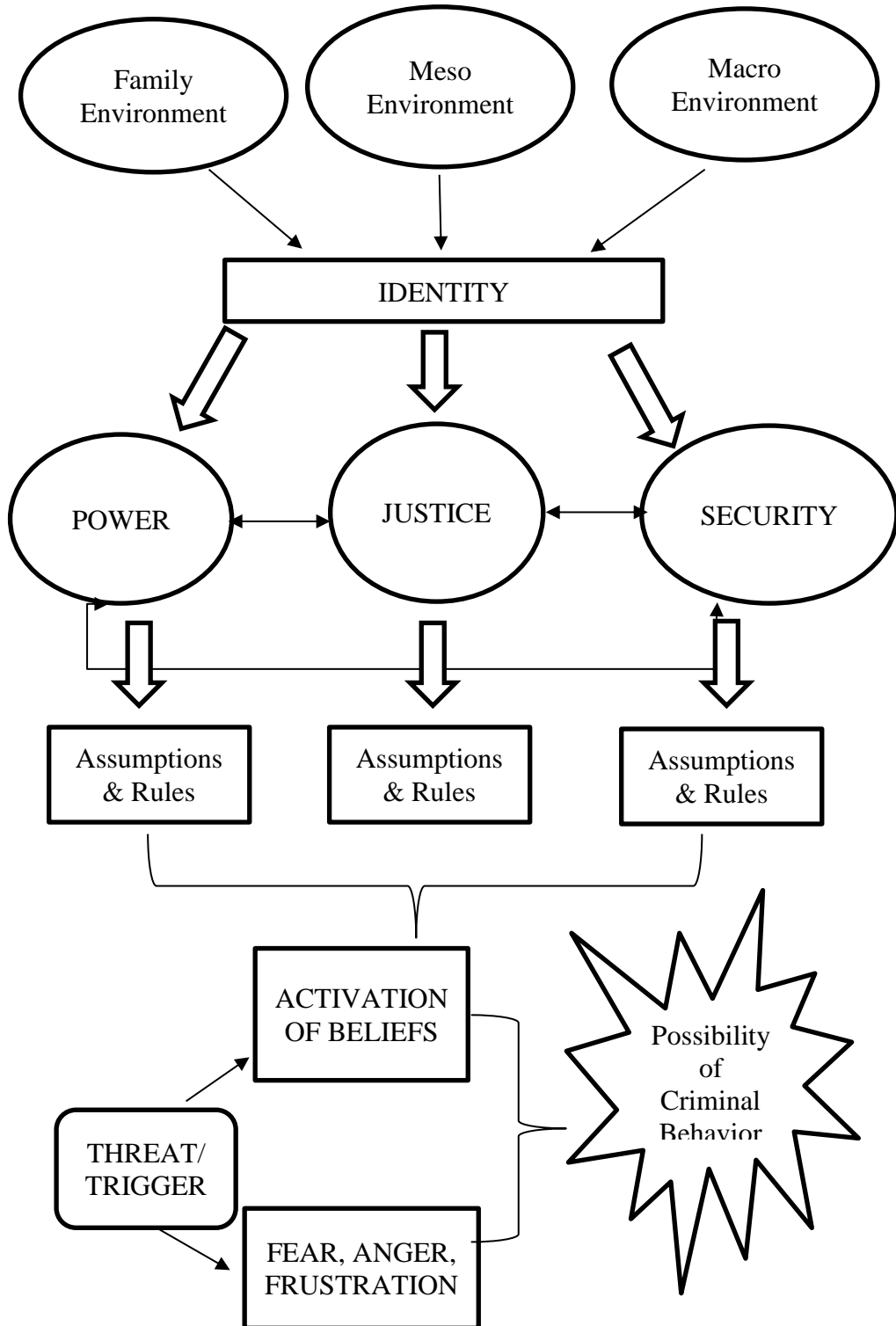


Figure 1.1. Heuristic Formulation of Cognitive Mechanisms of Offending

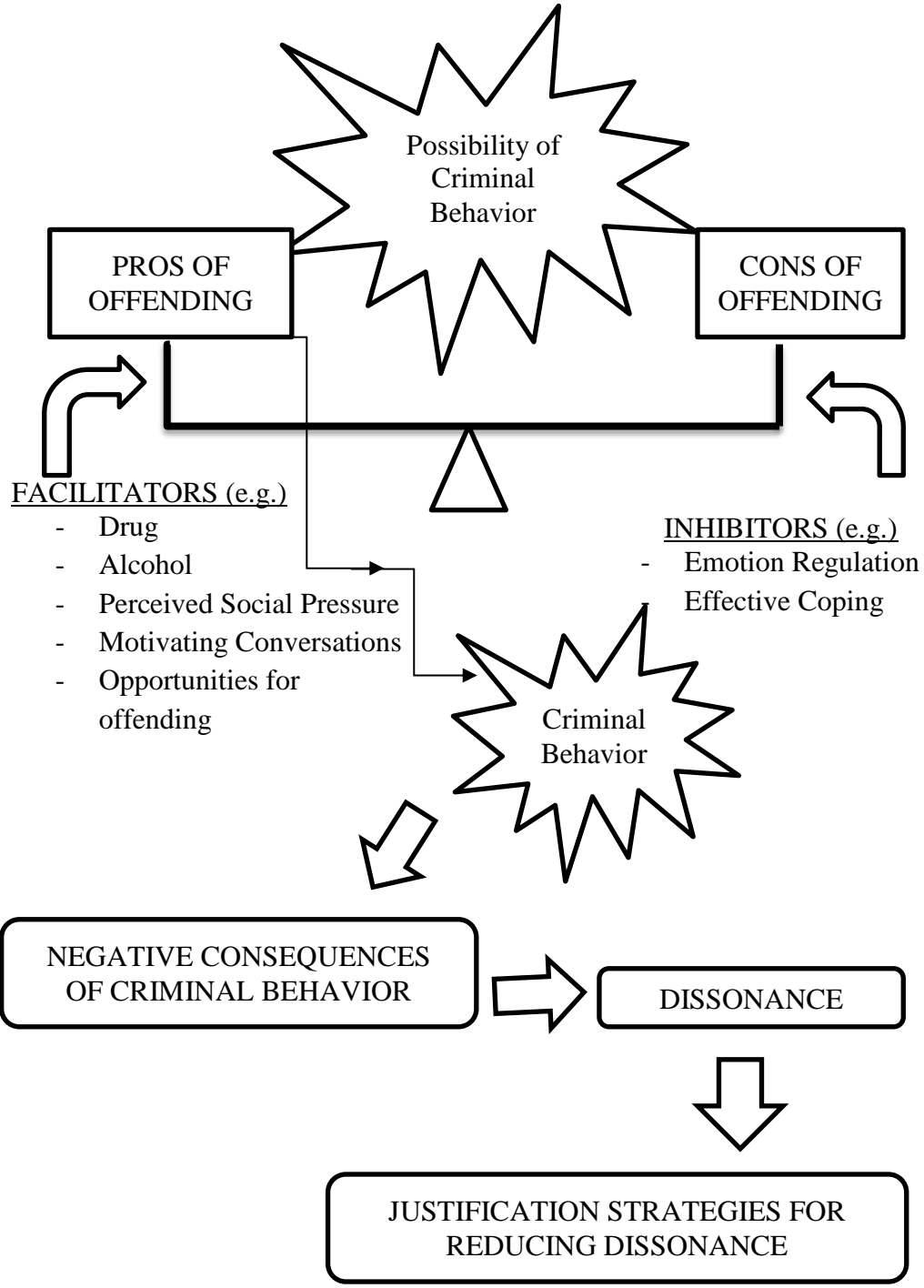


Figure 1.1. Cont'd.

1.2. Cognitive Mechanisms Associated with Juvenile Criminality

A specific focus to the issue of juvenile criminality is crucial for a number of reasons. Above all, as stated by Franklin (2002), children and young people (CYP) are a vulnerable group that is open to “exploitation, discrimination, disrespect, and non-recognition by adults” (Barry, 2006, p.1). Secondly, most perpetrators of child victimization are again children and young people (Grubin, 1998, Wang, Iannotti, & Nansel, 2009). Although it’s highly inconsistent with the commonsense that childhood is a period of innocence (Barry, 2006; Franklin, 2002), occasions of violence (be it physical, verbal, emotional or sexual) is not rare among CYP (Renold & Barter, 2003). In fact a number of studies brought out the fact that violence (particularly peer violence) is normalized within the context of CYP, notably in the institutions where CYP reside (i.e, Children’s homes, Renold & Barter, 2003; Sinclair & Gibbs, 1998, Juvenile correctional facilities, Davidson-Arad & Golan, 2007). Normalization of violence has serious consequences such as overlook of victimization (Renold & Barter, 2003) (as discussed further in detail). Therefore focusing on violence and criminality among CYP will also contribute indirectly to the issue of child victimization. Moreover, the literature on juvenile criminality frequently articulated that juvenile offenders commonly had a history of victimization, of either an abuse (Cullingford, 2005) or another crime (Goldson, 2011), which made them a further vulnerable group (Cullingford, 2005). Finally, studying juvenile criminality is important in terms of prevention of future crime. There’s considerable evidence regarding that offending generally begins at early adolescence, mostly between ages 15 and 19 (Farrington, 2005) and that the strongest predictor of recidivism as well as habitual rule-breaking behavior is the age of onset of offending (Trulson, Marquart, Mullings, & Caeti, 2005). Thus, giving particular importance to crime prevention among CYP will duplicate the impacts in the long run.

Most of the existing explanations of juvenile criminality apply adult models to juvenile behavior (Scott, 2000). However, several authors highlighted that the concerns of CYP as well as the context of juvenile criminality is different in many respects as compared to those of adults (Barry, 2006; Brezina, 1996; Scott, 2000).

1.2.1. Specific Issues Related to Young People

1.2.1.1. Concerns of Youth

In parallel with the Eriksonian stages of identity development (Erikson, 1963), Frydenberg and Lewis (1994, 1996) defined the concerns of young people under three categories: (1) Achievement, (2) Relationship with family and peers, and (3) Social issues. Regarding “Achievement”, young people have concerns related to being successful at school or in the work life (Hoffmann, 2011). In fact, achievement is an important necessity for young people in order to gain autonomy and social recognition (Barry, 2006; White, 2009). Alridge, Measham, and Williams (2011) further indicated that the transition to adulthood is now a longer and more uncertain process, which is characterized by an enduring feeling of insecurity about work and future. Within this context some of the young people perceive that they are subjected to an unfair disadvantage of blocked opportunities (Hoffmann, 2011). Therefore, they fail to find or interpret it as more difficult and unpredictable to use legitimate means of getting access to the opportunities or gaining recognition (Barry, 2006; White, 2009).

Relationship with family and peers is another concern during the transition to adulthood (Frydenberg & Lewis, 1994, 1996). This period is basically characterized by the development of personal identity (Erikson, 1963), whereby progressively gaining independence from the parents and experimentation of identities (Barry, 2006). Therefore, problems within the home environment (e.g., abusive parents) might have deteriorating impact during this period (Hoffmann, 2011). Besides, taking into account the crucial role of peer environment in the identity development process, it's not surprising to observe the negative impact of deviant peer groups as well as the protective role of supportive, pro-social peer networks (Patterson & Dishion, 1985). Barry (2006) further stated that peer environment is where the young person feels alleviated from the stress of surviving in an adult world.

The importance of peer network in the development of criminal behavior is mainly articulated by social learning models (Akers, 1985). Accordingly, a deviant peer environment is where the young person develops scripts about justifiable reasons for offending as well as s/he learns particular skills. Besides, sustaining the friendship and sense of belonging as well as gaining recognition are common

motivations reported by juvenile offenders (Barry, 2006). However, the relationship between peer relations and juvenile criminality is not limited to having deviant or non-deviant peers. For instance, Olweus (1993) demonstrated that, CYP might consider aggressive behavior as a means of gaining status and exercising power in a context where the peer environment is characterized by power relations and hierarchy (Edgar, et al., 2003). Furthermore, Barry (2006) noted that, engaging in a peer environment in which deviant behavior is favored might provide a space for the juvenile delinquent where s/he can receive the respect and recognition that s/he ultimately cannot among the adults. In such a peer environment, some other children offend because they feel obliged to conform to the norms of the group. This is particularly the case in the contexts where violence and/or criminality are normalized.

James and Prout (1998) highlighted the fact that the culture of CYP has its specific norms and dynamics that are formed through the relationship that the CYP engages in with that institution. Accordingly, CYP learn what to do and what not to do within a particular context, and they become desensitized as they encounter more and more in time with these “rules and regulations” (Renold & Barter, 2003). In fact, normalization leads to an overlook of victimization, in the sense that CYP becomes both the victim and the perpetrator of the process and feels unprotected by the staff. Therefore, it is notably important to take into account the rules and norms of the context in which juvenile delinquency takes place (2003) or in wider culture of CYP (e.g., Children’s homes, correctional institutions, peer groups, gangs, work, school, and street life). However, there’s limited research that investigated the culture of these contexts.

The process of normalization of violence and/or criminality is also evident in the attitudes and the justifications that young offenders reported (Toblin, Schwartz, Hopmeyer Gorman, & Abou-ezzeddine, 2005). In addition, Hoffmann (2011) stated that hostile attribution bias (i.e., disproportionately interpreting the intents of others as hostile) is common among young offenders. Simons, Chen, Stewart, and Brody (2003) further claimed that normalization of aggression mediated the relationship between perceived threats and delinquent responses. Another finding that reflects the normalization of delinquency in the culture of juveniles is that, juveniles reported

more self-serving cognitive distortions as compared to adults (Wallinius et al., 2011). These findings commonly suggest that the justification of criminal behavior develops long before the criminal act is perpetrated. The reasons for committing violent and/or criminal acts are legitimized during the process of normalization via social learning (Hoffmann, 2011).

Renold and Barter (2003) further asserted that sustaining a masculine identity (e.g., providing a tough image, not being seen as weak or fearful) and therefore not being positioned as a victim is another major concern in the context of delinquent boys (Newburn and Stanko, 1994 as cited in Renold & Barter, 2003). Therefore, violence is also legitimized through the vicious circle of being victimized and reacting aggressively in order to compensate victimization.

Returning back to the concerns of youth, the third category defined by Frydenberg and Lewis (1994, 1996) was “Social Issues”. Accordingly, an environment characterized by poverty, lack of opportunities, unemployment, disorganization, and violence is also another concern for young people (Barry, 2006; White, 2009). In fact, a number of researchers claimed that young people engage in deviant behavior as a means of coping (Barry, 2006; Hoffmann, 2011), not only with immediate threats, but also with their surrounding environment in which, they experience that, the aforementioned aspects seem to provide no other option than offending (Barry, 2006; White, 2009).

Relating to the concerns of youth, Frydenberg (2008) later added the feelings of boredom as another source of stress that is commonly found to be associated with juvenile criminality (Barry, 2006). As described in detail in the next section, juvenile delinquency is frequently acknowledged as young people’s maladaptive response in order to cope with their concerns related to achievement, relations, environment, and feelings of boredom.

1.2.1.2. Deviance as Coping

Studies investigating juvenile delinquency frequently cite deviance as a means of maladaptive coping. Ashkar and Kenny (2009) asserted that providing and sustaining a tough image in the estimation of the peers is an important motivation for young offenders in choosing violence and/or criminality as a strategy. As discussed in the previous section, in a peer environment where delinquency is favored and the

relationships are characterized by hierarchy and power balances, violence and/or criminality becomes a common strategy to solve everyday problems and to cope with general concerns (Agnew, 1992). Besides, several authors noted that since exercising autonomy among peers is an important developmental milestone (Barry, 2006; White, 2009), in extreme cases, violence and/or criminality might be chosen as a means of meeting the developmental demands (Barry, 2006; Ferrell & Sanders, 1995). Accordingly, Ferrell and Sanders (1995) underlined that, in addition to exercising autonomy, young people might also resort to criminality as a strategy to escape from feelings of powerlessness.

The impulsive nature of most of the juvenile delinquent acts, feelings of excitement, and the attractiveness of high-risk situations for young people are frequently reported to provide a baseline for criminality (Ferrell & Sanders, 1995). It's suggested in the literature that young people might also choose deviance as a strategy to cope with negative emotions (Brezina, 1996) and boredom (Barry, 2006; Frydenberg, 2008) as they might have difficulty in emotion regulation and tolerating feelings of uncertainty (Alridge et al., 2011).

Brezina (1996) outlined the function of the strategies that were commonly employed by juvenile delinquents. Accordingly, the young person might choose illegal behavior in order to escape from certain aversive environments, in order to compensate for negative affect, and in order to retaliate which provides a feeling of power and justice. The author further claimed that although these strategies prove to be ineffective in the long-run, the young people might still continue using them because of their effectiveness in the short-run.

Some authors elaborated on what might be the conventional, more adaptive means of coping and why some young people fail to use these strategies (Agnew, 1992; Barry, 2006). For instance, Barry (2006) outlined various sources of achieving power and autonomy (i.e., capital) within a developmental framework. However, they noted that these sources might be unavailable to the young person within a given time period. Moreover, as Agnew (1992) discussed, more conventional strategies might turn out to be ineffective (especially in the short-run) and/or young people might lack resources to employ these strategies.

1.2.2. Motivation to Offend: A Decision Making Process among Young People

A number of reasons (or motivations) for offending were already articulated. In short, juvenile delinquency is commonly regarded as young people's maladaptive strategies to directly or indirectly deal with certain concerns. Within that premise, the decision making process of committing crime is highly influenced by the aforementioned concerns.

Scott and Grisso (2005) stated that adolescent decision making process might be different than that of adults, being more impulsive, relying on short term consequences, and being highly influenced from peer environment. These factors are also common themes of the reasons or justifications reported by young offenders (Barry, 2006).

An analysis of costs and benefits of offending is also evident in juvenile decision making process, although it is assumed to be more impulsive (Aldridge et al., 2011). Besides, there are certain facilitating and inhibiting factors which might not be directly associated with reasons for committing crime, but have a crucial impact on the decisional balance analysis.

1.2.2.1. Facilitating Factors & Pros of Offending

Facilitating factors influence the decision making process so that the person gives a "pros of offending – skewed" decision. As previously noted, these factors generally include the negative affect experienced, being intoxicated, social pressure, motivating conversations, and perceived opportunities for offending. These factors are also pronounced to have a facilitator role in the juvenile delinquency literature. Agnew (1992) indicated that feelings of anger, frustration, guilt, depression, worthlessness, and anxiety might be all related to criminality, with anger being the most related. Likewise, proneness to aggression is suggested to precipitate criminal behavior as well (Huesmann, Eron, & Dubow, 2002). Alcohol and/or illegal substance are other factors that are commonly associated with juvenile criminality, being either the reason of offending (e.g., in order to have money to buy drugs) or the facilitator (via intoxication) (Barry, 2006). Besides, Matthys, Cuperus, and Van Engeland (1999) claimed that, a number of psychopathology (i.e., conduct disorder, oppositional defiant disorder) and personality factors (i.e., neuroticism) might be

facilitating for offending behavior as these factors shape how one perceives himself/herself and others. Furthermore, obtaining money is the primary advantage of offending reported by young people, not necessarily because “they need money in order to survive”, but for gaining status and reputation among peers (Barry, 2006). Last but not least, proponents of labelling theory asserted that the reflected appraisals made by significant others have a deteriorating influence on the young person’s self-concept, which has a profound impact on engaging in criminality (Matsueda, 1992 as cited in Hoffmann, 2011).

1.2.2.2. Inhibiting Factors & Cons of Offending

Inhibiting factors influence the decision making process so that the person gives a “cons of offending – skewed” decision. As previously noted, these factors generally include emotion regulation and effective coping strategies. Taking into account the impulsive nature of juvenile criminality and that criminal behavior is commonly used as a coping strategy among young people, these factors become notably important (Hoffmann, 2011). Finally, in terms of perceived disadvantages of offending, young people generally reported “being caught and imprisoned”, “upsetting the family”, and “having bad reputation in the community” (Barry, 2006). These factors mainly imply the long-term consequences of offending and imprisonment, of which young people have difficulty to assess in the initiation phase of criminality. However, whether the initiation of crime involves any assessment related to the disadvantages of offending is still unknown.

1.3. Cognitive Mechanisms Associated with Desistance from Offending

Desistance from offending received relatively less attention in the literature of criminal behavior. In general, the tendency is towards investigating the factors associated with recidivism and incompletion with or early drop-out from treatment in the forensic settings. However, the mechanisms influencing why people stop offending is unknown (Laub & Sampson, 2001; Serin & Lloyd, 2009). It is recently articulated that investigating desistance from offending is important for especially 2 reasons. First of all, risk factors that are associated with the initiation to crime failed to explain why people stop offending (Laub & Sampson, 2001; Serin & Lloyd, 2009), indicating that the processes underlying initiation and desistance from

criminality might be different. Secondly, investigating the specific mechanism of desistance is crucial in depicting relevant treatment goals (Serin & Lloyd, 2009).

The definition of desistance from offending is a controversial issue in the literature. Theoretically, desistance means abstinence from criminality (Maruna, Lebel, Mitchell, & Naples, 2004). However, as Farrington (1986) stated, it's difficult to set the time limit for being sure about complete desistance. Within that respect, Maruna (2001) indicated that it's more significant to consider desistance as a process of change and to investigate the associated behavioral, attitudinal, emotional, and cognitive changes. It's further suggested in the literature that focusing on the desistance as a change process will illuminate the underlying mechanisms which are common both for adults and juveniles (Serin & Lloyd, 2009) and both for general and specific types of offending (Laub & Sampson, 2001). Yet, the factors influencing the process might differ according to specific groups (Serin & Lloyd, 2009).

1.3.1. Factors Associated with Desistance

A number of factors were consistently found to be correlated with desistance from offending, with "aging" the most frequently reported (Laub & Sampson, 2001; Sampson & Laub, 1993; Serin & Lloyd, 2009). Accordingly, as people gets older, their tendency to commit crime decreases and they are more likely to desist from offending. Some authors explained the relation between aging and desistance within a developmental framework. For instance, (Laub & Sampson, 2001) indicated that transition from adolescence to adulthood requires being less impulsive, more responsible, and change in life goals. Moreover, as the person gets older, s/he discovers that time is a diminishing source, thus s/he takes less risky decisions. Sampson and Laub (1993) further proposed that the sources of social control changes during different developmental stages. For instance, the person might have a problematic family and school life but engaging in employment in adulthood might motivate the person for desistance. A similar assumption was also suggested by (Barry, 2006), indicating that the person might find more diverse opportunities and resources for achieving sense of power through conventional means. However, as Sullivan (2004) indicated, escaping from the context of criminality as well as achieving opportunities for desistance might be more difficult for juvenile offenders.

In addition to aging, engaging in and sustaining a good marriage or other pro-social intimate relations, a legal and stable work life, having children (Laub & Sampson, 2001; Stouthamer-Loeber, Wei, Loeber, & Masten, 2004) and avoiding from the old life and relations (Farrall, 2011) were found to be associated with desistance. However, with an important caveat that, psychological mechanisms (e.g., cognitive and emotional factors) moderating this relationship (Serin & Lloyd, 2009).

1.3.2. Psychological Mechanisms of Desistance

Recent studies in the desistance literature began to focus on internal processes associated with desistance. Accordingly, a number of cognitive and emotional variables were figured out. In particular, the evidence suggested that, changes in cognition (Maruna, 2001), pro-criminal attitudes and beliefs (Serin & Lloyd, 2009), as well as feelings of shame and regret regarding the past behavior (Farrall, 2011) are found to be related to motivation to stop offending.

1.3.2.1. Theory of Cognitive Transformation

According to Maruna (2001), desistance process requires leaving the past self behind and development of a new identity. In support of this assumption, Maruna (2001) underlined a common report of ex-offenders in terms of taking role in the prevention of criminality. Besides, phenomenological approaches indicated that the desistance process involves, along with several other life-changes, an improvement in self-respect, developing a sense of social identity, and beliefs as well as expectations regarding desistance (Barry, 2006; Serin & Lloyd, 2009). Therefore, revealing individual experiences is suggested to provide important tools for the intervention to facilitate the change process (Maruna, 2001).

In line with the aforementioned suggestions, Maruna (2001) provided a framework for the cognitive transformations associated with desistance. Accordingly, the desistance process involves a change in the core-belief regarding the view of self, development of a sense of control, and having a brand new purpose in life which is associated with the development of a sense of social identity. Giordano and colleagues (2002) provided another parallel theory of cognitive transformations, which is comprised of four stages. The initial stage requires a general readiness to change. Secondly, there needs to be opportunities for change and

the person should utilize from these opportunities. The third stage is the self-reconstruction process when the person acknowledges new conventional beliefs and attitudes. Finally, in the last stage the person internalizes his/her new self and develops a new perspective for his/her past deviant experiences. In general, the cognitive transformation process that is outlined by Maruna (2001) and Giordano et al (2002) requires a motivational process when the person re-evaluates what is important to him/her as well as a costs and benefits analysis of desistance (Farrall, 2011).

1.3.2.2. Emotional Trajectories of Desistance

The researchers generally suggested that desistance from offending is associated with feelings of shame and regret (Farrall, 2011). However, the process of coping with these emotions is not clear. Besides, taking into account that the desistance process involves cognitive and attitudinal changes, it's reasonable to assume that the person might engage in different emotional states during the change process. There isn't sufficient research regarding the studies which investigate emotional associates of desistance process. However, recently Farrall and Calverley (2006) provided a framework for the emotional trajectories of desistance. Accordingly, at the initial stage, the person is hopeful about the future and has a desire for a better life. But, s/he cannot specifically describe what s/he likes to achieve in the future. Besides, the authors asserted that, in this initial phase of engaging in desistance, the person reports relatively less regrets about the past, indicating that the person is not ready to elaborate on the past behaviors yet. As the person begins elaborating, s/he reports more negative emotions about his/her past and fewer hopes for the future. These negative emotions evolve into shame and disgust about the past, when the person re-gains his/her hopes for the future in more concrete terms (that s/he can specifically define what s/he likes to achieve). As the person gains the feeling of leaving the past behind, consequently s/he reports pride about his/her achievements, which finally turns into feelings of trust and belongingness in the last phase.

1.3.3. Motivation to Desist from Offending

Motivation to commit criminal behavior was explained in terms of a decision making process when the person experiences offending as more advantageous. Researchers indicated that desistance from (or persistence of) offending involves the same decision making mechanism (Cornish & Clarke, 1986). However, it's not clear in the literature whether the person perceives more disadvantages (i.e., cons) of offending or more advantages (i.e., pros) of desisting in order to desist from criminality.

Regarding the cons of offending, Tillyer (2011) suggested that the criminal event might be unexpectedly traumatic for the individual which in turn might motivate him/her for desistance. Additionally, cons of offending generally involve responses related to the practical consequences of imprisonment (Barry, 2006).

In terms of the pros of desisting, the responses generally included the achievements obtained (or expected to obtain) in terms of the aforementioned factors such as relations (e.g., encouragement of others, improvement in relations), work life (e.g., earning "honest" money), and psychological changes (e.g., increased self-worth, sense of social identity, freedom of having a conventional and stable life). Besides, a number of responses were made regarding the cons of offending (e.g., not being imprisoned again, not being a focus of police attention) (Barry, 2006).

1.3.4. Trans-Theoretical Model of Behavior Change

As mentioned before, desistance from offending is considered as a change process when certain cognitive, attitudinal, an emotional transformations lead to a more conventional life-style (Maruna, 2001). A number of researchers provided a framework for desistance as a change process. For instance, Baskin and Sommers (1998) as well as Fagan (1989, as cited in Laub & Sampson, 2001) indicated that the desistance process begins with a motivation to change, following behavior change, and finally maintenance of desistance. These models are highly relevant to the trans-theoretical model of behavior change (TTM), developed by Prochaska, DiClemente, and Norcross (1992). Integrating various psychological theories (e.g. psychoanalytical, cognitive-behavioral, existential), TTM assumes that motivation to change (as well as being unmotivated) requires different levels of cognitive

awareness (Prochaska & Norcross, 2003). Accordingly, people might engage in different motivational stages, which are characterized by varying attitudes and beliefs (Prochaska & DiClemente, 1992). Therefore underlying psychological mechanisms might vary in each stage, and each requires different experiential and behavioral therapeutic strategies to foster the individual's change process (Prochaska & DiClemente, 1986). One of the most influential of these psychological mechanisms is the variation in the decision making process in each stage. All in all, the balance of pros and cons of engaging in a specific behavior differs in parallel with the motivation to change, with cons outweighing the pros as the person gains progress.

Prochaska and DiClemente (1992) defined five stages of change. Accordingly, Precontemplation is the initial stage when the person is unmotivated to change and s/he is not aware of a problem that needs to be changed. As the definition implies, precontemplation is when most of the drop-outs take place (Verhaagen, 2010). Oreg (2003) claimed that there might be several reasons for a person being unmotivated to change, such as not preferring to challenge the routine. These reasons generally constitute the pros of continuing the behavior which outweigh the cons, or they might reflect the cons of not changing the behavior, which outweigh the pros in the precontemplation stage (Prochaska & Norcross, 2003). Therefore, in order to facilitate the individual for behavior change, strategies aiming to increase consciousness are required, when the individual gains awareness about the cons of engaging in particular behavior (Prochaska & Norcross, 2003, 84). This process is further facilitated by environmental re-evaluations (e.g. social comparison) and dramatic relief (Prochaska & Norcross, 2003).

Moving towards contemplation requires an acceptance of having a problem (Prochaska & DiClemente, 1994). The individual, not denying the negative aspects of the behavior any more (Velicer et al., 1985), begins considering about behavior change in the contemplation stage (Prochaska & DiClemente, 1994). Therefore, the person's decision making process is akin to a balance in terms of the pros and cons of engaging in a particular behavior. In order to give a decision to change the behavior, the balance should be gradually skewed towards cons of engaging in a particular behavior (Norman, Velicer, Fava, & Prochaska, 1999). Therefore, this progression is suggested to be facilitated by self re-evaluation (e.g. self-monitoring)

strategies. Giving a decision to change is defined as the Preparation stage, which is followed by taking an Action (Prochaska & DiClemente, 1994). In the action stage, cons of engaging in a particular behavior clearly outweigh the pros (Norman, et al., 1999). Therefore this process is facilitated by self-liberation and counter conditioning strategies in accordance with therapeutic relationship (Prochaska & Norcross, 2003). The final stage is conceptualized as Maintenance, when the individual needs to sustain the behavior change (Prochaska & DiClemente, 1994). Therefore this stage is facilitated by relapse prevention strategies (Prochaska & Norcross, 2003). However, moving towards maintenance, as well as experiencing set-backs from maintenance is highly expected. In fact, one of the basic premises of TTM is formulating change process as a spiral rather than a linear pathway, with inevitable set-backs (Prochaska, DiClemente, & Norcross, 1992). Merrill, Alterman, Cacciola, and Rutherford (1999) further claimed that, although the periods of lapses seem to be demotivating, the effects of learned experiences are cumulative, providing a greater chance of behavior change in the long run. Therefore, reframing the periods of lapses is also crucially important (Casey, Day, & Howells, 2005).

The TTM of behavior change has been applied to various areas; from mental health (e.g. McConaughy, Prochaska, & Velicer, 1983) to intimate partner violence (Easton, Swan, & Sinha, 2000). The model also received considerable attention from the offender rehabilitation literature (Tierney & McCabe, 2004; Williamson, Day, Howells, Bubner, & Jauncey, 2003), such as in anger management programs (Williamson et al., 2003) and in working with sex offenders (Hudson & Ward, 2000; Ward, Day, Howells, & Birgden, 2004). However, some important limitations remain regarding the utilization of TTM in forensic practice. For instance, “offending” does not imply a significant behavior per se, which might complicate the process as the person might be in different stages of change for different behaviors that contribute to his/her offending (McMurrin, Tyler, Hogue, Cooper, Dunseath, & McDaid, 1998). Furthermore, the prisoners might be motivated to engage in treatment programs for a variety of reasons (e.g. being placed in a different section in the prison) other than changing their offending patterns (Tierney & McCabe, 2004). Finally, Scott and Wolfe (2003) identified an important caveat that stages of change

might not be associated with risk of recidivism, therefore might not be useful in determining the selection of the clients who are more in need of treatment.

1.3.5. Promoting Desistance: What Works?

Psychosocial interventions in the forensic practice have long been neglected with the assumption that “nothing works”. However, in the last two decades, the notion of “nothing works” has been transformed into asking “what works”, with the accumulating evidence of the effectiveness of rehabilitation programs (Williamson et al., 2003). Consequently, it is now widely accepted that desisting from offending and the effectiveness of interventions are largely dependent on the context (Tilley, 2001). Therefore, in addition to identifying “what works” in “which circumstances”, researchers further denoted that understanding the underlying mechanisms (i.e., identifying “how it works”) is crucial as well (Tilley, 2001). However, there have been little attempts in uncovering the mechanisms of desistance, thus why some programs work and while others do not should be investigated (Serin & Lloyd, 2009). Within this framework, Good Lives Model (GLM, Ward, 2002; Ward & Marshall, 2004) offers a strengths-based approach, indicating that shifting the focus from depicting the risks towards enhancing the pro-social goals of the offender after release is a more effective strategy that boosts self-efficacy and motivation to change and promotes desistance (Burnett & Maruna, 2006). Similarly, the Good Way Model suggested that, while working with young people, promotion of positive aspects of the self is highly crucial while challenging the negative aspects of the behavior. This strategy fosters motivation to change by building hope and challenging the need to defend and justify the offending behavior (Ayland & West, 2006).

1.4. Aims of the Present Study

The present study is comprised of four subsequent studies and the aim of each study is indicated in the related section. In general, the purpose of the present study was to investigate the cognitive mechanisms of offending among adult and juvenile male prisoners. Accordingly, associated cognitions were examined through the evaluation of criminal thinking elements (i.e., assumptions and defensive strategies).

Besides, their association with motivation to offend (i.e., decisional balance) and motivation to change (i.e., stages of change) were investigated.

CHAPTER II

STUDY I

2.1. STUDY I.A: ADAPTATION OF CRIMINAL THINKING SCALE (CTS), STAGES OF CHANGE SCALE FOR CRIMINALS (SOCS-C), AND DECISIONAL BALANCE SCALE FOR CRIMINALS (DBS-C)

2.1.1. Introduction

Investigation of cognitive patterns that support criminal behavior is especially important for understanding dynamic risk factors and for preventing recidivism. Prevention of recidivism is one of the primary goals of the studies conducted in forensic settings. In recent years, investigations of the factors predicting re-offending behavior (e.g., Hanson & Morton-Bourgon, 2005), and development of programs to manage re-offending gained acceleration (e.g., Ward et al., 2004). The findings to date generally supported the use of actuarial methods for risk analysis (Andrews, Bonta, & Wormith, 2006). However, as Silver and Miller (2002) discussed, in order for interventions to change possible risk elements, dynamic risk factors should be investigated with clinical methods.

Criminal thinking, as being one of the important dynamic risk variables, is defined as “thought content and process conducive to the initiation and maintenance of habitual law breaking behavior” (Walters, 2006, p. 88). Building upon Psychological Inventory of Criminal Thinking Styles (PICTS; Walters, 2002), Texas Christian University Criminal Thinking Scale (CTS) was developed in order to assess criminal thinking (Knight, Garner, Simpson, Morey, & Flynn, 2006). CTS evaluates general attitudes that are suggested to reinforce the criminal act, such as entitlement, justification of the criminal behavior, power orientation, cold-heartedness, criminal rationalization, and personal irresponsibility (Knight, et al., 2006). In particular, entitlement is one’s belief that his/her personal gains are more important than the rights of others (Knight, et al., 2006). The concept is highly associated with inflated self-esteem (i.e., narcissism), which is suggested to be contributing to aggression (Schreer, 2002). Justification is characterized by trivialization of the criminal act (Knight, et al., 2006) and functions as alleviating the

negative affect and restoring the positive self-image (Holland, et al., 2002). Power orientation is defined as striving for achieving and exerting power and control over other people. It is further suggested that power orientation is highly associated with aggressive and manipulating behaviors (Knight, et al., 2006). Cold-heartedness, which is frequently cited as a psychopathic trait (Harpur, Hare, & Hakstian, 1989), indicates one's lack of emotional contribution in relationships. Criminal rationalization implies one's belief that authority figures commit, but are not accused of criminal acts. Finally, personal irresponsibility is diffusing responsibility to others while denying one's own (Knight, et al., 2006). There are few, but consistent evidence regarding the utility of criminal thinking, especially in terms of predicting institutional adjustment (Walters & Mandell, 2007, as cited in Walters, 2009), and recidivism. Last but not least, criminal thinking is found to be negatively contributing to treatment engagement (Taxman, Rhodes, & Dumenci, 2011). Hence, establishing a reliable and valid measure of criminal thinking is suggested to enhance our understanding about treatment attrition in forensic settings.

Treatment failure is defined in terms of clients' refusal to, attrition from, fail to respond to, or relapse after a treatment program (Emmelkamp, & Foa, 1983). Treatment failure is also a common phenomenon in the forensic practice, eventually leading to hopelessness for staff and higher recidivism (Howells & Day, 2007). When the mismatch between the individual criminogenic need and the program is considered as an explanation for treatment failure in offender practice (Day, Bryan, Davey, & Casey, 2006), there are attempts in the literature in order to adapt clinical process of change models to offender populations (i.e., Banyard, Eckstein, & Moynihan, 2010; Day et al., 2006). Among these models, Transtheoretical Model (TTM) that was developed by Prochaska and DiClemente (1992) received considerable support (Howells & Day, 2003). According to TTM, change during therapeutic process is a function of decisional balance, self-efficacy, and process of change, indicating that people in different motivational stages of change need different kinds of intervention (Prochaska & Norcross, 2003).

2.1.2. Aim of the Study

The aim of the present study was to investigate the psychometric properties of Criminal Thinking Scale (CTS), Stages of Change Scale for Criminals (SOCS-C), and Decisional Balance Scale for Criminals (DBS-C) in a sample of adult, male offenders in Turkey. In addition, the concept of criminal thinking was aimed to be explored in terms of offence-supportive assumptions and defensive strategies.

2.3. Method

2.1.3.1. Participants

Before the study, the participants were asked to fill out the Demographic Information Form (see Appendix B), which included questions concerning general characteristics, work and military experiences, familial characteristics and early childhood experiences, general health conditions, criminal history, and prison experiences.

2.1.3.1.1. General Characteristics

The sample of the present study consisted of 200 male participants who were incarcerated for a variety of crimes in Muğla E Type Prison and Detention House ($n = 145, 72.5\%$) and İstanbul Silivri Number 8 L-Type Prison and Detention House ($n = 55, 27.5\%$) (For details of the criminal history of participants, see Section 2.1.3.1.5). A total of 62 participants (44 from Muğla and 18 from İstanbul) also attended the re-test study. The ages of the participants ranged between 18 and 66 ($M = 34.16, SD = 9.81$).

Taking into account the education levels of the participants, only one participant (0.5%) was illiterate, 85 participants (42.5%) had an education experience less than a secondary school degree, 67 participants (33.5%) completed a secondary school degree, 35 participants (17.5%) had a high school degree, and 11 participants (5.5%) had a university degree. The frequency information regarding the education levels of the participants can be followed from Table 2.1.

Table 2.1. Education Levels of the Participants

	Frequency	Percentage (%)
1.Illiterate	1	0.5
2.Literate/Primary school-left	13	6.5
3.Primary school-graduated	49	24.5
4.Secondary school-left	23	11.5
5.Secondary school-graduated	42	21
6.High school-left	25	12.5
7.High school-graduated	35	17.5
8.University	11	5.5
Missing	1	0.5

Regarding the marital status, while 35.5 % of the participants ($n = 71$) were married, 56.5 % of the participants ($n = 113$) were either single or widowed. When they were asked about with whom they were living before they were imprisoned, 67.5% of the participants ($n = 135$) indicated that they used to be living with their families (either with their parents or with their wife and/or children). Other participants ($n = 48$, 24 %) reported that they used to be living either alone or with their partner, relative, or friend. (For the details, see Table 2.2).

Table 2.2. Participants' Home Environment Before Imprisonment

	Frequency	Percentage (%)
Wife and/or children	80	40
Mother, father, siblings	55	27.5
Partner	9	4.5
Relative	5	2.5
Friend	5	2.5
Alone	29	14.5
Missing	17	8.5

2.1.3.1.2. Work and Military Experience

Only nine of the participants (4.5 %) indicated that they did not have any work experience. According to the reports of 87.5 % of the participants who had work experience ($n = 175$), their age of beginning to work ranged between 5 and 29 ($M = 14.10$, $SD = 4.21$).

In terms of military experience, while 65.5 % of the participants ($n = 131$) indicated that they had completed their military service without any problem, 8 % of them ($n = 16$) indicated that they were not able to complete their services or their

services were extended either because of a medical or a psychiatric problem. Finally, 15.5 % of the participants ($n = 33$) reported that they could not conduct their military service because of imprisonment.

2.1.3.1.3. Familial Characteristics and Early Childhood Experiences

In terms of familial characteristics, participants were asked questions regarding their parents, their siblings, and whether they experienced any long term separation from the parents and/or violence in their home environment. Accordingly, 60.7 % of the participants ($n = 128$) indicated that both of their parents were alive and 45.5 % of the participants ($n = 91$) further reported that their parents were living together. On the other hand, 11 % of the participants ($n = 22$) reported that both of their parents were dead.

Regarding siblings; the number of siblings that the participants had ranged between 1 and 18 ($M = 5.19$, $SD = 2.77$) with a median of 4, and their order of birth ranged between 1 and 15 ($M = 3.03$, $SD = 2.10$) with a median of 2.

The participants were asked whether they experienced any long term separation from their parents in their childhood. Accordingly, 58 % of the participants ($n = 116$) reported that they did not experience any long term separation from their parents. However, 13 % of the participants ($n = 26$) indicated that they were separated from one of their parents, 8 % of them ($n = 16$) reported that they were separated from both of their parents and lived with their relatives, and 13.5 % of the participants ($n = 27$) reported that they experienced long term separation from their parents either because of boarding school, adoption, for work, for protection, imprisonment, or because they had ran away from home and lived in the streets (see Table 2.3. for the details). Moreover, while 34.5 % of the participants ($n = 69$) indicated that they experienced or witnessed violence in their family environment, 65.5 % of the participants ($n = 131$) did not report any experience of violence.

The percentage of the participants who reported that they had to live in the streets for some period during their childhood or adolescence were 32.5 % ($n = 65$).

Taking into account the criminal history evident in the participants' family environment, while 74% of the participants did not report any criminal record for their families, 11.5 % ($n = 23$) indicated that one of their parents experienced

imprisonment, and 14.5 % ($n = 29$) indicated that either their siblings or their relatives had criminal history.

Table 2.3. Participants' Long Term Separation from Their Parents during Childhood

	Frequency	Percentage (%)
No separation	116	58
Separation from mother	5	2.5
Separation from father	21	10.5
Separation from both, lived with relatives	16	8
Society for the Protection of Children	2	1
Adoption	3	1.5
Boarding school	5	2.5
For work	8	4
Imprisonment	3	1.5
Running away from home	6	3
Missing	15	7.5

2.1.3.1.4. General Health Conditions

Regarding previous chronic illnesses, 17.5 % of the participants ($n = 35$) reported medical, 7 % of the participants ($n = 14$) reported psychiatric, and 5 % of the participants ($n = 10$) reported both medical and psychiatric history, while 61 % of the participants ($n = 122$) did not report any chronic medical conditions. Considering present health, 9.5 % ($n = 19$), 11.5 % ($n = 23$), and 3 % ($n = 6$) of the participants indicated that they were currently experiencing medical, psychiatric, and both medical and psychiatric conditions, respectively while 61 % of the participants ($n = 122$) did not report any present health concerns.

Considering alcohol and substance use, 91.5 % ($n = 183$) of the participants reported that they were using alcohol before imprisonment, and 19.7 % of them ($n = 36$) indicated that they might had alcohol dependency problem. Moreover, the percentage of the participants who reported that they used illegal substance at least once before imprisonment was 35.5 % ($n = 71$).

Finally, while 29.5 % of the participants ($n = 59$) reported suicide, 41.5 % of the participants ($n = 83$) reported self-harm history.

2.1.3.1.5. Criminal History and Prison Experience

The sample included 63 sentenced participants (31.5 %), 83 detainee participants (41.5 %), and 53 detainee participants under sentence (26.5 %). The prison terms of the participants who were under sentence ranged between 0.5 and 38

years ($M = 11.18$, $SD = 9.65$). The latest crimes that the participants were accused of are listed in Table 2.4. Accordingly, 19.5 % of the participants ($n = 39$) were accused of a non-violent crime (i.e., theft, fraud, grab, plundering, or forgery), 28.5 % of the participants ($n = 57$) were accused of a violent crime (i.e., murder, attempted murder, physical injury, or attendance to an armed act), 40.5 % of the participants ($n = 81$) were accused of an illegal substance related crime (i.e., illegal trafficking of drugs, being in a gang), 5.5 % of the participants ($n = 11$) were accused of a sexual crime, and 3 % of the participants ($n = 6$) were accused of other types of crimes (i.e., military crime, resistance to a police officer, giving harm to a property, human trafficking, or intimidation/blackmail).

The participants' age of first criminal conduct ranged between 8 and 58 ($M = 24.46$, $SD = 10.52$). Out of the participants, 41 % ($n = 82$) indicated that they had experiences of imprisonment and release, due to a non-violent crime ($n = 68$), a violent crime ($n = 79$), illegal substance related crime ($n = 79$), and/or a sexual crime ($n = 13$).

44.5% of the participants ($n = 89$) reported that they voluntarily attend to the psychosocial service. However, 47.5% of the participants ($n = 95$) indicated that they never voluntarily applied to the psychosocial service in the prison. Finally, 14 % of the participants ($n = 28$) indicated that they have previously attended a psychosocial help group (i.e., anger management, psycho-education seminars, alcohol/substance dependence group).

Table 2.4. Participants' Latest Crimes

Type of Crime	Frequency	Percentage (%)
1) Non-Violent	39	19.5
Theft	15	7.5
Fraud	7	3.5
Grab	6	3
Plundering	8	4
Forgery	3	1.5
2) Violent	57	28.5
Murder	40	20
Attempted Murder	4	2
Physical injury	9	4.5
Armed Act	4	2
3) Illegal Substance	81	40.5
Trafficking	73	36.5
Gang	8	4
4) Sexual	12	6
5) Other	6	3
Military crime	1	0.5
Resistance to the police officer	1	0.5
Giving harm to a property	1	0.5
Human trafficking	1	0.5
Intimidation/blackmail	2	1
Missing	5	2.5

2.1.3.2. Measures

In the present study, Criminal Thinking Scale (CTS), Stages of Change Scale for Criminals (SOCS-C), and Decisional Balance Scale for Criminals (DBS-C) were adapted into Turkish. In order to investigate the validity of the instruments, participants were also asked to answer Rosenberg Self Esteem Scale (RSE), Life Events Inventory for Prisoners (LEIP), Locus of Control Scale (LOC), Basic Personality Traits Inventory (BPTI), Positive and Negative Affect Schedule (PANAS), and Ways of Coping Inventory (WCI).

2.1.3.2.1. Criminal Thinking Scale (CTS)

CTS is a 37-item, 5-point Likert type measure that aims to assess thinking patterns that reinforce criminal behavior along six dimensions: (1) Entitlement (EN; represented by the items 2., 10., 23., 24., 25., 33., and 34), (2) Justification (JU; represented by the items 8., 12., 17., 26., 27., and 36), (3) Power Orientation (PO;

represented by the items 5., 11., 14., 15., 16., 21., and 29), (4) Cold Heartedness (CH; represented by the items 1., 7., 13., 18., and 28), (5) Criminal Rationalization (CR; represented by the items 6., 9., 19., 20., 31., and 35), lastly (6) Personal Irresponsibility (PI; represented by the items 3., 4., 22., 30., 32., and 37). High scores reflect higher crime-supportive thinking.

For scoring CTS, items 1., 7., 13., 18., 19., and 28 are reverse coded. After computing each scale score by taking the average of the item scores and multiplying them by 10, the total CTS score is achieved by taking the average of the 6 scale scores.

CTS was developed by Knight, Simpson, and Morey (2002), with the collaboration of Federal Bureau of Prisons. The three scales of CTS (i.e., EN, JU, and PO) were adapted from Psychological Inventory of Criminal Thinking Styles (Walters, 1995), and the others were developed for CTS, by giving reference to Yochelson and Samenow (1976, as cited in Knight et al., 2006). The internal consistency coefficients of the CTS scales (i.e., EN, JU, PI, PO, CH, and CR) were found to be .78, .75, .68, .81, .68, and .71 and the test-retest reliability scores were revealed to be .69, .70, .81, .75, .66, and .84, respectively (Knight, et al., 2006).

The present study consists of the adaptation study of CTS to Turkish. Items of CTS were translated into Turkish by two people who were bilingual and had strong psychological background. Afterwards, back-translations were conducted, which revealed conceptually similar items with the original scale. The psychometric properties of CTS are described in more detail in Section 2.1.4.2. However, the preliminary results revealed a Cronbach alpha value of .84 for the total score and .61, .59, .67, .59, .71, and .61 for EN, JU, PO, CH, CR, and PI, respectively. Besides, the test-retest reliability scores were .70 for the total scale and .51, .48, .55, .23, .67, and .52 for the subscales, respectively (see Appendix C for CTS).

2.1.3.2.2. Stages of Change Scale for Criminals (SOCS-C)

The original Stages of Change Scale (SOCS) that was developed by McConaughy and colleagues (1983) is a 32-item, 5-point Likert type instrument that aims to assess motivation to change for a broad range of problems encountered in psychotherapy settings. The scale is composed of four subscales; (1) Precontemplation (represented by the items 1., 5., 11., 13., 23., 26., 29., and 31)

defines the stage that the clients are motivated to change others and the environment, but not themselves. (2) Contemplation (represented by the items 2., 4., 8., 12., 15., 19., 21., and 24) defines the stage that the clients become aware of their problems and consider whether the problems are changeable. (3) Action (represented by the items 3., 7., 10., 14., 17., 20., 25., and 30) defines the stage when the clients are actively dealing with changing. (4) Maintenance (represented by the items 6., 9., 16., 18., 22., 27., 28., and 32) refers to the stage when the clients have made some changes and would like to consolidate the gains they have achieved (McConaughy, DiClemente, Prochaska, & Velicer, 1989). In the original study, the internal consistency coefficients were found to be .88 for the Precontemplation, Contemplation, and Maintenance scales, and it was found to be .89 for the Action scale.

In the literature, there are studies that adapted SOCS items for the sample that is the subject of the present study. For instance, Rollnick, Heather, Gold, and Hall (1992) adapted the SOCS items for the sample of heavy drinkers by changing the wording “my problem” with “my drinking”. Later, Williamson and colleagues (2003) used Rollnick and colleagues’ (1992) questionnaire with a sample of offenders by changing the wording “drinking” with anger. Moreover, Tierney and McCabe (2004) adapted the original SOCS for sex offenders by following similar methodology.

In the present study, the items of SOCS were initially translated into Turkish by two people who were bilingual and had strong psychological background. Afterwards, back-translations were conducted, which revealed conceptually similar items with the original scale. The wordings of the items were not changed in the present study. However, the instruction was changed, highlighting that “problem” refers to anything that might have contributed to the offending behavior. Besides, as the original scale was developed to assess motivation to change through psychotherapy, some items include a wording of “here” which refers to the psychotherapy setting. However, as the participants in the present study are all prisoners, the wording “here” would not apply to them. Therefore, a note was added to these items, indicating that “here” refers to the services that are provided by the psychosocial service in prison settings.

The psychometric properties of SOCS-C are described in more detail in Section 2.1.4.4. However, the preliminary results revealed Cronbach alpha values of .60, .73, .83, and .78 for Precontemplation, Contemplation, Action, and Maintenance, respectively. Besides, the test-retest reliability scores were .68, .55, .65, and .60, respectively (see Appendix D for SOCS-C).

2.1.3.2.3. Decisional Balance Scale for Criminals (DBS-C)

The original Decisional Balance Scale (DBS) that was developed by Velicer and colleagues (1985) is a 24-item, 5-point Likert type instrument that aims to assess different aspects of decision making process in smoking cessation. The scale is composed of two subscales; (1) Pros (represented by items 1., 2., 4., 5., 7., 10., 11., 13., 19., 20., 21., and 24) reflect the perceived advantages of smoking and (2) Cons (represented by the items 3., 6., 8., 9., 12., 14., 15., 16., 17., 18., 22., and 23) reflect the perceived disadvantages of smoking. Velicer and colleagues (1985) found a Cronbach alpha value of .87 for the “Pros” and .90 for the “Cons” scale.

DBS was adapted to Turkish by Yalçinkaya-Alkar and Karancı (2007) with comparable internal reliability scores for Pros and Cons of smoking (.74 and .81, respectively).

Taking into account the scope of the present study, items of DBS were adapted to offender sample by changing the word “smoking” to “offending”. Besides, some items were not applicable for offending behavior, hence the alternatives were suggested. For instance, Item 3, “Sometimes smoking or getting cigarettes is inconvenient” is changed with the item “Sometimes offending is dangerous and risky”. Likewise, Item 9, “I would be more energetic right now if I did not smoke” is changed with the item “My life would be better if I did not offend”. In order to further reveal the positive and negative attributions attached to the offending behavior, additional close and open-ended questions were asked. These questions were determined by asking forensic practitioners about the most frequent offending motivations that they had encountered (see Appendix E for DBS-C and Appendix F for additional items).

The psychometric properties of DBS-C are described in more detail in Section 2.1.4.5. However, the preliminary results revealed Cronbach alpha values of

.80 and .76 for Pros and Cons, respectively. Besides, the test-retest reliability scores were .62 and .38, respectively.

2.1.3.2.4. Rosenberg Self-Esteem Scale (RSE)

RSE is a 10-item, 4-point Likert type instrument that aims to assess self-esteem. The answer options range from (1) “Strongly agree” to (4) “Strongly disagree” and the items 1., 2., 4., 6., and 7., are reverse-coded, hence higher scores indicate higher self-esteem. The original scale was developed by Rosenberg (1965) and there remains considerable evidence regarding the strong reliability and validity of the instrument. For instance, Fleming and Courtney (1984) noted that the internal consistency values of the scale range between .77 and .88 while the test-retest reliability values are as high as .82 to .85. The scale was adapted to Turkish by Çuhadaroğlu (1986), with comparable reliability scores to the original values (i.e., .71 for internal consistency and .75 for test-retest reliability). RSE was initially developed for adolescent samples (Rosenberg, 1965), but it is also extensively being used with samples that consist of young adults (e.g., Baumeister, Heatherton, & Tice, 1993; Dutton & Brown, 1997) and adults with different ages (e.g., Marčić & Grum, 2011). Moreover, the instrument is applicable across different cultures (e.g., Babington, Kelley, & Patsdaughter 2009; Uba, Jaacob, Juhari, & Talib, 2010) and is widely used in Turkish studies (e.g., Arslan, 2009; Bahçivan-Saydam & Gençöz, 2005). In the present study, the internal consistency value of RSE is found to be .80 and the test-retest reliability is found to be .76 (see Appendix G for RSE).

2.1.3.2.5. Life Events Inventory for Prisoners (LEIP)

LEIP is a 20-item, 4-point Likert type instrument that aims to assess prisoners’ experienced stress by measuring frequency and relative importance of certain conditions specific to prison life. LEIP was developed by Şenol (2003) with a considerably high internal consistency coefficient ($\alpha = .84$).

Answer options in LEIP range from (0) “never” to (3) “always” for the “Frequency”, and (0) “not important” to (3) “very important” for the “Importance” column. Hence, high scores reflect higher stress experienced in prisons. The total score is achieved by multiplying the frequency score of each item with its importance score and adding them up.

In the present study, the Cronbach alpha value of LEIP was found to be .89 and the test-retest reliability score was found to be .78 (see Appendix H for LEIP).

2.1.3.2.6. Locus of Control Scale (LOC)

LOC is a 47-item, 5-point Likert type instrument that aims to assess the extent to which people attribute the causes of the events to internal or external resources. The Turkish version of LOC was developed by Dağ (2002), by extending the original scale of Rotter (1966) through including additional items from various locus of control scales and further analyzing the achieved 80 items. According to the results Dağ (2002), the scale was finalized with 47 items, with a Cronbach alpha value of .92 and test-retest reliability of .88. Dağ (2002) further indicates that the high scores achieved in LOC refer to more external locus of control. For computing the global score, all items are added up after recoding the items 15., 16., 26., and 30. Besides, LOC includes a subscale for measuring internal locus of control (items 17., 18., 19., 21., 27., 28., 29., 31., 32., 33., 34., 36., 37., 41., 43., 44., 45., 47; all reversed). In the original study of Dağ (2002), the Cronbach alpha value of internal locus of control was found to be .87, and the test-retest reliability was found to be .83. Furthermore, there are 4 subscales for assessing different styles of external locus of control. These subscales are “Belief in Chance” (items 1., 6., 9., 11., 12., 15., 16., 23., 26., 30., 40), “Insignificance of Struggle” (items 2., 4., 5., 8., 10., 14., 22., 24., 25., 35), “Fatalism” (items 3., 39., 42), and “Belief in an Unfair World” (items 7., 13., 20., 38., 46). In the original study, the Cronbach alpha values of these scales were .79, .76, .74., and .61, respectively and the test-retest reliability coefficients were .81, .61, .89, and .74, respectively.

In the present study, the internal consistency coefficients of the global score of LOC, as well as the subscales of internal locus of control, belief in chance, insignificance of struggle, fatalism, and belief in an unfair world were found to be .87, .90, .61, .80, .61, and .68, respectively. Moreover, the test-retest reliability coefficients were found to be .70, .57, .57, .68, .60, and .61, respectively (see Appendix I for LOC).

2.1.3.2.7. Basic Personality Traits Inventory (BPTI)

BPTI is a 45-item inventory, aimed to assess the basic personality traits which are often referred to as the five-factor model of personality (McCrae, & Costa, 2003;

Peabody, & Goldberg, 1989), and developed particularly for Turkish culture through a series of studies conducted by Gençöz and Öncül (2012). During the process of the development of the inventory, initially it was aimed to figure out the adjectives that are used frequently in Turkish culture in order to describe different people. Accordingly, 100 participants were asked to write down the adjectives that they used in order to describe different people that led them have various feelings (i.e., happiness, anger, excitement, pity, fear). By choosing one single item for the adjectives that indicated same characteristics, 250 adjectives were determined. Afterwards, when the adjectives that reflected physical characteristics of people, and those that were regarded as “slang” were excluded out of these 250 adjectives, “List of Personality Traits” was formulated through 226 adjectives. Secondly, the List of Personality Traits was applied to 510 participants whose ages ranged between 17 and 60, and they were asked to rate each adjective through 5-point Likert type scale that ranged between (1) “does not apply to me” and (5) “definitely applies to me”. When the data was subjected to the varimax rotated principle components analysis, results yielded 5 basic personality traits (extraversion, conscientiousness, agreeableness, neuroticism, and openness to experience), as consistent with the literature, and a sixth factor which was also supported by the recent studies (Durrett, & Trull, 2005). This sixth factor is named as negative valence (2005), which can be summarized as “negative self-attributions”. By gathering together the 45 items that had the highest loadings on these six factors (and which also had low loadings on the other factors), “Basic Personality Traits Inventory” (BPTI) was formed. Finally, in the third study, a series of inventories which were regarded as conceptually parallel were applied with BPTI to 454 undergraduate students. In this study, it was aimed to test the psychometric characteristics of the BPTI, and the six factors. The internal consistency coefficients for BPTI factors were found to be .89, .85, .85, .80, .83, and .71 for extraversion, agreeableness, conscientiousness, openness to experience, neuroticism, and negative valence, respectively. Moreover, the test-retest reliability scores were found to be .84, .71, .80, .83, .81, and .72 for extraversion, agreeableness, conscientiousness, openness to experience, neuroticism, and negative valence, respectively. Finally, concurrent validity studies with other inventories applied for each factor supported satisfactory psychometric characteristics of BPTI.

In the present study, the internal consistency coefficients for BPTI factors were found to be .70, .79, .81, .74, .80, and .61 for extraversion, agreeableness, conscientiousness, openness to experience, neuroticism, and negative valence, respectively. Besides, the test-retest reliability scores were found to be .73, .66, .74, .56, .68, and .56, respectively.

In the inventory, items 6, 7, 21, 22, 24, 32, 38, and 39 are reverse coded. Extraversion is represented by 8 items (i.e., 4., 6., 7., 14., 24., 32., 38., 39.), agreeableness is also represented by 8 items (i.e., 3., 8., 15., 16., 19., 23., 28., 41.), conscientiousness is also assessed by 8 items (i.e., 12., 21., 22., 25., 42., 43., 44., 45.), neuroticism is measured by 9 items (i.e., 1., 11., 18., 27., 29., 33., 35., 37., 40.), openness to experience is assessed by 6 items (i.e., 5., 9., 10., 17., 20., 36.), and finally negative valence is represented by 6 items (i.e., 2., 13., 26., 30., 31., 34.). High scores reflect higher characteristics on the assessed dimension of personality (see Appendix J for BPTI).

2.1.3.2.8. Positive and Negative Affect Schedule (PANAS)

PANAS is a 20-item, 5-point Likert type instrument that aims to assess positive and negative affect (Watson, Clark, & Tellegen, 1988). While positive affect refers to emotional states of being active and enthusiastic, negative affect refers to emotional states of distress (Gençöz, 2000). The original scale was developed by Watson, et al. (1988). Accordingly, the scale revealed good psychometric properties. For instance, the internal consistency coefficients were found to be .88 and .85 for positive and negative affect, respectively. Besides, the test-retest reliability coefficient was found to be .47 for both measures. In the original study, PANAS is also reported as a valid instrument that differentiates depressive and anxious states.

PANAS was adapted to Turkish by Gençöz (2000), with comparable reliability and validity scores to the original values. For instance, the reliability values for positive and negative affect was found to be .86 and .83, respectively. Moreover, the test-retest reliability scores for positive and negative affect was found to be .54 and .40, respectively.

Besides adult and clinical samples, PANAS is also being used in forensic samples (e.g., Leue & Beauducel, 2011) and with adolescents (e.g., Chan & Chui, 2012; Villodas, Villodas, & Roesch, 2011).

The answer options in PANAS range from (1) “very little or none” to (5) “very much” and high scores reflect higher characteristics on the assessed dimension. For computing positive affect dimension, items 1., 3., 5., 9., 10., 12., 14., 16., 17., and 19., are added up. The remaining items (i.e., 2., 4., 6., 7., 8., 11., 13., 15., 18., and 20) reflect negative affect.

In the present study, the internal consistency coefficients of positive and negative affect were found to be .83 and .79, respectively, while the test-retest reliability scores for positive and negative affect were found to be .68 and .61, respectively (see Appendix K for PANAS).

2.1.3.2.9. Ways of Coping Inventory (WCI)

The original Ways of Coping Checklist (Folkman & Lazarus, 1980) includes 68 items with a yes-no response style, and the items consist of cognitive and behavioral strategies that people use to deal with the internal and external demands of the encountered situations. Accordingly, Folkman (1984) defines two main coping strategies as “Problem-Focused Coping” and “Emotion-Focused Coping”. While Problem-Focused Coping is defined as managing the stressful situation by using strategies like decision making, planning, seeking knowledge, and taking action, Emotion-Focused Coping refers to regulating the distressing emotions through activities which involve positive reframing, avoidance, seeking emotional support, and wishful thinking (Folkman, 1984; Folkman & Lazarus, 1985). In the original study, the internal consistency coefficients were found to be .80 and .81 for Problem-Focused Coping and Emotion-Focused Coping, respectively.

WCI was adapted to Turkish by Siva (1991). In this study, Siva considered including 6 additional items in order to assess the fatalistic styles of coping frequently used by Turkish people, hence the Turkish form of WCI added up to 74 items. Similar to Folkman and Lazarus (1985), who utilized 4-point Likert type scale in their revised version of WCI, Siva (1991) changed the response style into 5-point Likert scale for the Turkish version of WCI.

An examination of hierarchical dimensions of Turkish version of WCI revealed 3 main domains of coping as Problem-Focused Coping ($\alpha = .90$), Emotion-Focused Coping ($\alpha = .88$), and Seeking Social Support: Indirect Coping ($\alpha = .84$) (Gençöz, Gençöz, & Bozo, 2006).

In WCI, items 8., 10., 13., 15., 17., 19., 20., 29., 31., 35., 36., 39., 41., 44., 45., 46., 49., 50., 52., 56., 58., 60., 63., 65., 66., 68., 71., 73., and 74 are added up for Problem-Focused Coping, and items 1., 4., 7., 12., 16., 18., 23., 26., 28., 32., 34., 40., 43., 53., 55., 57., 59., 61., 64., 67., 70., and 72 stand for Emotion-Focused Coping. Finally, the remaining items (i.e., 2., 6., 11., 14., 21., 25., 30., 33., 38., 42., 62., 69) constitute Indirect Coping Style.

In the present study, the internal consistency coefficients of Problem-Focused Coping, Emotion-Focused Coping, and Indirect Coping were found to be .75, .85, and .75, respectively. Besides, the test-retest reliability scores for Problem-Focused Coping, Emotion-Focused Coping, and Indirect Coping were found to be .64, .69, and .71, respectively (see Appendix L for WCI).

2.1.3.3. Procedure

Before the study, formal permissions were obtained from Middle East Technical University Ethical Committee and Ministry of Justice General Directorate of the Prisons and Detention Houses.

The participants were selected through convenience sampling method from Muğla E Type Prison and Detention House and İstanbul Silivri Number 8 L-Type Prison and Detention House. The prisoners who were sentenced due to a political crime were not included in the present study. After the presentation of the informed consent (see Appendix A) and taking the permission of the participant, the inventory package was provided to the participant. The completion of the package lasted for approximately 30 minutes, varying according to the age and educational levels of the participants.

2.1.3.4. Statistical Analyses

In the present study, data were analyzed through the Statistical Package of Social Sciences (SPSS), version 15 for Windows. Participants who had more than 10 % missing cases in at least one of the inventories were excluded from the study. For the remaining missing data, the cases' average scores for that instrument were replaced.

2.1.4. Results

In the results section, initially the descriptive information regarding the scales and subscales is presented. Afterwards, results considering the psychometric

properties of the adapted scales are explained, in separate sections for each scale. In order to investigate the psychometric properties, principle components analysis and reliability analyses (i.e., Cronbach alpha, item-total correlation, as well as test-retest reliability) were conducted. Besides, correlational analyses were conducted for concurrent validity, and one-way ANOVA or MANOVA were employed for criterion validity, in each section. Finally, in order to investigate the associated factors with the additional items of positive and negative attributions of offending behavior, Chi-Square, t-test and MANOVA were employed.

2.1.4.1. Descriptive Statistics

Descriptive information regarding the Criminal Thinking Scale (CTS), Stages of Change Scale for Criminals (SOCS-C), Decisional Balance Scale for Criminals (DBS-C), Rosenberg Self-Esteem Scale (RSE), Life Events Inventory for Prisoners (LEIP), Locus of Control Scale (LOC), Basic Personality Traits Inventory (BPTI), Positive and Negative Affect Schedule (PANAS), and Ways of Coping Inventory (WCI) are presented in Table 2.5.

Table 2.5. Descriptive information regarding the measures of the study

Variables	Alpha Coefficient	Test-Retest Reliability	Mean	SD	Min-Max
CTS	.84	.70	26.44	5.30	13.57-41.05
Entitlement	.61	.51	24.72	7.74	10-45.71
Justification	.59	.48	23.84	8.08	10-50
Power Orientation	.67	.55	27.76	8.49	10-50
Cold Heartedness	.59	.23	15.28	5.58	10-38
Criminal Rationalization	.71	.67	34.95	9.84	10-50
Personal Irresponsibility	.61	.52	32.10	8.96	10-50
SOCS-C					
Precontemplation	.60	.68	22.40	5.77	10-40
Contemplation	.73	.55	30.21	5.94	13-40
Action	.83	.65	31.35	6.35	14-40
Maintenance	.78	.60	25.28	6.90	8-40
DBS-C					
Pros	.80	.62	19.42	7.37	12-51
Cons	.76	.38	45.36	8.80	16-60
RSE	.80	.76	30.45	5.08	14-40
LEIP	.89	.78	92.67	43.1	3-198
LOC	.87	.70	152.34	23.5	78-207
Internal Locus of Control	.90	.57	38.19	13.1	18-83
Belief in Chance	.61	.57	29.13	6.22	11-48
Insignificance of Struggle	.80	.68	26.79	8.84	10-49
Fatalism	.61	.60	11.29	3.08	3-15
Belief in an Unfair World	.68	.61	13.11	4.99	5-23
BPTI					
Extraversion	.70	.73	28.95	5.83	12-40
Agreeableness	.79	.66	36.36	3.85	20-40
Conscientiousness	.81	.74	33.86	5.38	11-40
Openness to Experience	.74	.56	24.78	4.14	8-30
Neuroticism	.80	.68	23.34	7.71	9-44
Negative Valence	.61	.56	10.04	3.80	6-24
PANAS					
Positive Affect	.83	.68	35.38	8.14	10-50
Negative Affect	.79	.61	25.41	8.18	10-50

Table 2.5. Cont'd.

WCI					
Problem Focused Coping	.89	.64	106.67	16.9	53-145
Emotion Focused Coping	.85	.69	65.73	13.7	37-102
Indirect Coping	.75	.71	40.10	8.02	21.8-60

Note. CTS = Criminal Thinking Scale, SOCS-C = Stages of Change Scale for Criminals, DBS-C = Decisional Balance Scale for Criminals, RSE = Rosenberg Self-Esteem Scale, LEIP = Life Events Inventory for Prisoners, LOC = Locus of Control Scale, BPTI = Basic Personality Traits Inventory, PANAS = Positive and Negative Affect Schedule, WCI = Ways of Coping Inventory

2.1.4.2. Psychometric Properties of CTS

2.1.4.2.1. Factor Structure of CTS

Initially, a 6-factor solution varimax rotated principle components analysis was employed for CTS. However, the results failed to demonstrate the six sub-scales of CTS, with many of the items receiving cross-loadings on other factors.

An investigation of scree-plot suggested a 3-Factor solution. Thus, the varimax rotated principle components analysis of CTS was revised with 3-Factor solution. As can be followed in Table 2.6, the first factor represented EN, PO, and JU domains with an eigenvalue of 5.25 and explained variance of 14.19 %, the second factor represented CR and PI domains with an eigenvalue of 3.99 and explained variance of 10.79 %, and finally the third factor represented CH domain with an eigenvalue of 2.84 and explained variance of 7.67 %. Considering item loadings, there were 20 items representing “EN + PO + JU” domain with item loadings ranging from .11 to .74, 12 items representing “CR + PI” domain with item loadings ranging from .10 to .76, and 5 items representing CH domain with item loadings ranging from .40 to .66.

Referring back to the discussion that offense-supportive assumptions are conceptually different than the defensive strategies (Maruna & Mann, 2006), it was expected that principle component analysis would reveal a factor structure which would differentiate “assumptions” (i.e., EN, PO, CR, CH) from the “defensive strategies” (i.e., JU and PI). However, principle components analysis revealed that while JU, as a defensive strategy, was found to be associated with “power oriented

assumptions” (i.e., EN, PO), PI was found to be associated with CR. Besides, CH was found to be represented as a separate factor structure. A possible explanation for this finding might be that “assumptions” and associated “defensive strategies” were represented together. Accordingly, when the meanings of the items were carefully examined, it is observed that items of JU were indicating externalizing (e.g., you find yourself blaming society and external circumstances for the problems in your life) or trivializing strategies (e.g., Breaking the law is no big deal as long as you do not physically harm someone). Therefore, participants with “power oriented assumptions” might be more likely to engage in “externalizing” or “trivializing” strategies. Similarly, it is observed that items of PI included strategies pointing at the “Self-victimization strategies” (e.g., Laws are just a way to keep poor people down). Moreover, CR indicated assumptions indicating that “the world is unjust” (e.g., anything can be fixed in court if you have the right connections). Thus, it is reasonable to expect that participants with “Injustice-Oriented Assumptions” would engage in strategies emphasizing how they were victimized via unjust treatment. These hypotheses are tested in further analyses (see Section 2.2). However, in order to clarify that the “assumptions” and “defensive strategies” are dissimilar concepts, these two domains were separately subjected to two consecutive varimax rotated principle component analyses.

Regarding the “assumptions” domain (i.e., EN, PO, CR, CH), a 4-factor solution failed to demonstrate the factors under the assumptions domain. Therefore, a 3-Factor solution was employed in line with the suggestion of scree-plot. As can be followed in Table 2.7, the first factor represented the “power oriented assumptions” (i.e., EN + PO) with an eigenvalue of 3.90 and explained variance of 15.61 %, the second factor represented the “injustice-oriented assumptions” (i.e., CR) with an eigenvalue of 2.62 and explained variance of 10.48 %, and finally the third factor represented CH domain with an eigenvalue of 2.54 and explained variance of 10.16 %. Considering item loadings, there were 14 items representing “power oriented assumptions” domain with item loadings ranging from .08 to .78, 6 items representing the “injustice-oriented assumptions” domain with item loadings ranging from .38 to .73, and 5 items representing CH domain with item loadings ranging from .40 to .63. It should be noted that some items received cross-loadings with other

domains and some were better represented in different domains. For instance, Item # 2 (i.e, You deserve special consideration) and Item # 33 (i.e., Your good behavior should allow you to be irresponsible sometimes), which are originally items of EN domain, were found to have higher loadings in the CH domain. Similarly, Item # 15 (If someone disrespects you, then you have to straighten them out, even if you have to get physical with them to do it), which is originally an item of PO domain, received higher loading in the CH domain. Thus, it is possible that indicating that these items might have signaled a meaning of “Cold-Heartedness” rather than “Entitlement” or “Power Orientation” for the participants.

Taking into account the “defensive strategies” domain (i.e., JU and PI), a 2-Factor solution was employed. As can be followed in Table 2.8, the first factor represented the “externalizing & trivializing strategies” (i.e., JU) with an eigenvalue of 2.27 and explained variance of 18.89 % and the second factor represented “self-victimization strategies” (i.e., PI) with an eigenvalue of 2.13 and explained variance of 17.72 %. Considering item loadings, there were 6 items representing “externalizing & trivializing strategies” domain with item loadings ranging from .40 to .71. Likewise, there were 6 items representing “self-victimization strategies” domain with item loadings ranging from .43 to .69.

In the following analyses, “assumptions” domain (i.e., EN+PO, CR, CH) and “defensive strategies” domain (i.e., JU and PI) are treated as separate scales.

Table 2.6. Varimax Rotated Factor Loadings of the CTS Items (3-Factor Solution)

ITEM #	I	II	III
I.EN + PO + JU			
Item # 34	.74	.15	-.16
Item # 26	.65	.07	.02
Item # 24	.60	.11	-.13
Item # 11	.60	.19	-.14
Item # 36	.58	-.03	.10
Item # 14	.56	.14	-.12
Item # 5	.55	.34	-.16
Item # 29	.55	.07	-.27
Item # 33	.47	.01	.31
Item # 27	.46	.05	.07
Item # 25	.42	.04	.28
Item # 8	.39	.02	-.01
Item # 21	.39	.29	-.01
Item # 15	.39	-.17	.34
Item # 12	.37	.12	.49
Item # 23	.36	-.03	.09
Item # 10	.32	.42	.31
Item # 17	.29	.16	.05
Item # 16	.18	.27	.09
Item # 2	.11	.14	.35
II.CR + PI			
Item # 32	.11	.76	.09
Item # 31	.05	.66	.23
Item # 6	-.02	.65	.01
Item # 9	.05	.63	.22
Item # 19*	-.15	.61	-.06
Item # 35	.36	.57	-.14
Item # 30	.07	.44	.25
Item # 20	.09	.43	.18
Item # 22	.29	.40	.01
Item # 4	.06	.36	.17
Item # 3	.14	.29	.48
Item # 37	.58	.10	.18
III.CH			
Item # 18*	.10	.05	.66
Item # 7*	.07	-.16	.55
Item # 13*	-.02	-.15	.50
Item # 1*	.13	-.08	.48
Item # 28*	.29	-.15	.40
Eigenvalue	5.25	3.99	2.84
Explained Variance	14.19	10.79	7.67

Note1. * recoded items.

Note 2. EN = Entitlement, PO = Power Orientation, JU = Justification, CR = Criminal Rationalization, PI = Personal Irresponsibility, CH = Cold-Heartedness.

Table 2.7. Varimax Rotated Factor Loadings of the CTS - Assumptions domain Items

ITEM #	I	II	III
<u>I.Power oriented assumptions (EN + PO)</u>			
Item # 34	.78	.05	-.06
Item # 11	.66	.06	.01
Item # 24	.66	.02	-.09
Item # 5	.65	.23	-.05
Item # 29	.59	-.02	-.11
Item # 14	.57	.07	-.00
Item # 21	.44	.20	.12
Item # 25	.36	-.04	.30
Item # 23	.30	-.01	.20
Item # 16	.26	.15	.15
Item # 33	.39	-.12	.47
Item # 15	.30	-.29	.48
Item # 10	.30	.42	.29
Item # 2	.08	.13	.44
<u>II.Injustice-Oriented Assumptions (CR)</u>			
Item # 6	.08	.73	-.03
Item # 9	.06	.72	.20
Item # 19*	-.04	.64	-.03
Item # 31	.10	.64	.36
Item # 35	.49	.44	-.09
Item # 20	.10	.38	.37
<u>III.CH</u>			
Item # 7*	-.03	.11	.63
Item # 18*	-.17	.04	.60
Item # 13*	.07	.04	.56
Item # 1*	-.18	.14	.49
Item # 28*	-.29	.10	.40
Eigenvalue	3.90	2.62	2.54
Explained Variance	15.61	10.48	10.16

Note 1. * recoded items.

Note 2. EN = Entitlement, PO = Power Orientation, CR = Criminal Rationalization, CH = Cold-Heartedness.

Table 2.8. Varimax Rotated Factor Loadings of the CTS – Defensive Strategies Domain Items

ITEM #	I	II
<u>I. Externalizing & Trivializing Strategies (JU)</u>		
Item # 26	.71	.01
Item # 37	.65	.19
Item # 36	.58	.11
Item # 27	.58	-.02
Item # 8	.49	.01
Item # 17	.40	.20
<u>II. Self-Victimization Strategies (PI)</u>		
Item # 32	.07	.69
Item # 30	.04	.67
Item # 4	-.10	.66
Item # 3	.13	.54
Item # 12	.41	.45
Item # 22	.26	.43
Eigenvalue	2.27	2.13
Explained Variance	18.89	17.72
<u>Note1. *Recoded items.</u>		

2.1.4.2.2. Reliability of CTS-Assumptions Scale and CTS-Defensive Strategies Scale

The internal consistency coefficients (i.e., Cronbach alpha coefficients), the ranges for the item-total correlations, and the test-retest reliability values for the factors of CTS-Assumptions Scale (i.e., EN+PO, CR, and CH) and CTS-Defensive Strategies Scale (i.e., JU, and PI) are provided in Table 2.9.A, 2.9.B, and 2.9.C respectively. As can be followed in Table 2.9.A, the sub-scales revealed relatively strong internal reliability coefficients, ranging between .62 and .76. The item-total correlation coefficients ranged between .17 and .59 (see Table 2.9.B). Finally, the test-retest reliability coefficients were found to be ranging between .48 and .67, all significant at the $p < .001$ level (see Table 2.9.C).

Table 2.9. Reliability Information Regarding CTS

	A.Internal Consistency Coefficients	B.Item-Total Correlation Range	C.Test-Retest Reliability
EN+PO	.76	.19-.59	.61*
CR	.71	.35-.55	.67*
CH	.67	.17-.53	.55*
JU	.62	.27-.42	.48*
PI	.64	.30-.46	.52*

Note 1: * $p < .001$

Note 2. EN+PO = Power-oriented assumptions, CR = Injustice-oriented assumptions, CH = Cold-Heartedness, JU = Externalizing & trivializing strategies, PI = Self-victimization strategies.

2.1.4.2.3. Validity of CTS-Assumptions Scale and CTS-Defensive Strategies Scale

2.1.4.2.3.1. Concurrent Validity of CTS-Assumptions Scale and CTS-Defensive Strategies Scale

The correlations between the factors of CTS-Assumptions (i.e., EN+PO, CR, and CH) and CTS-Defensive Strategies Scales (i.e., JU and PI) are provided in Table 2.10. Accordingly, Power-Oriented Assumptions was found to be positively associated with the Injustice-Oriented Assumptions ($r = .35$, $p < .001$) but was not found to be related to Cold-Heartedness. On the other hand, Injustice-Oriented Assumptions and Cold-Heartedness were negatively associated with each other ($r = -.21$, $p < .01$). Regarding defensive strategies, Externalizing & Trivializing Strategies

were positively associated with Self-Victimization Strategies, ($r = .47, p < .001$). In terms of correlations between the scales, Power-Oriented Assumptions revealed positive associations with both Externalizing & Trivializing Strategies and Self-Victimization Strategies, ($r = .66, p < .001$ and $r = .54, p < .001$, respectively). Likewise, Injustice-Oriented Assumptions were observed to be positively related to both Externalizing & Trivializing and Self-Victimization Strategies, ($r = .26, p < .001$ and $r = .58, p < .001$, respectively). On the other hand, Cold-Heartedness was found to be unrelated to Externalizing & Trivializing Strategies and was observed to be negatively associated with Self-Victimization Strategies, ($r = -.27, p < .001$).

In order to investigate the concurrent validity of CTS-Assumptions and CTS-Defensive Strategies scales, the factors were subjected to correlational analysis with demographic and other study variables. For the concurrent validity information, zero-order correlations were taken into account, and only the Pearson Correlation Coefficients that were equal to or exceeds .20 were interpreted. It should be noted that “alcohol use” was not included in the analyses since none of the participants reported not using alcohol before imprisonment.

Table 2.11 presents the Pearson Correlations with demographic variables. Accordingly, EN+PO revealed significant positive correlations with substance use ($r = .22, p < .01$), history of living in streets ($r = .21, p < .01$), and history of non-violent crime ($r = .26, p < .001$) and significant negative correlations with age ($r = -.24, p < .001$) and age of first offence ($r = -.31, p < .001$). Besides, CR was observed to be positively associated with substance use ($r = .23, p < .01$) and negatively associated with age of beginning to work ($r = -.24, p < .01$). On the other hand, CH score did not reveal zero-order associations with any of the demographic variables. In terms of defensive strategies, JU was found to be positively related to alcohol usage problems ($r = .24, p < .001$), substance use ($r = .25, p < .001$), experience of violence in the family ($r = .20, p < .01$), history of living in the streets ($r = .32, p < .001$), and history of non-violent crime ($r = .20, p < .01$). JU did not reveal any negative associations with the demographic variables. Finally, PI score did not reveal zero-order associations with any of the demographic variables.

Table 2.12 presents the Pearson Correlations with demographic variables. Accordingly, EN+PO revealed significant positive correlations with neuroticism ($r =$

.36, $p < .001$), negative valence ($r = .37$, $p < .001$), external locus of control ($r = .34$, $p < .001$), belief in chance ($r = .34$, $p < .001$), insignificance of struggle ($r = .45$, $p < .001$), belief in an unfair world ($r = .36$, $p < .001$), negative affect ($r = .29$, $p < .001$), emotion-focused coping ($r = .25$, $p < .001$), precontemplation ($r = .28$, $p < .001$), maintenance ($r = .20$, $p < .01$), and pros of offending ($r = .52$, $p < .001$). On the other hand, EN+PO provided negative associations with agreeableness ($r = -.20$, $p < .01$) and self-esteem ($r = -.20$, $p < .01$). In terms of CR, positive associations were observed with external locus of control ($r = .20$, $p < .01$), belief in chance ($r = .20$, $p < .01$), insignificance of struggle ($r = .22$, $p < .01$), belief in an unfair world ($r = .23$, $p < .001$), level of stress in prison ($r = .34$, $p < .001$), precontemplation ($r = .23$, $p < .001$), and pros of offending ($r = .21$, $p < .01$). However, CR was not found to be negatively associated with any of the study variables. Furthermore, while CH was positively related only with internal locus of control ($r = .20$, $p < .01$), it was negatively related with agreeableness ($r = -.26$, $p < .001$), contemplation ($r = -.23$, $p < .001$), action ($r = -.23$, $p < .001$), cons of offending ($r = -.21$, $p < .001$). In terms of defensive strategies, JU was found to be positively related to neuroticism ($r = .30$, $p < .001$), negative valence ($r = .35$, $p < .001$), external locus of control ($r = .32$, $p < .001$), belief in chance ($r = .25$, $p < .001$), insignificance of struggle ($r = .37$, $p < .001$), belief in an unfair world ($r = .36$, $p < .001$), negative affect ($r = .32$, $p < .001$), emotion-focused coping ($r = .23$, $p < .001$), precontemplation ($r = .21$, $p < .01$), maintenance ($r = .22$, $p < .01$), and pros of offending ($r = .41$, $p < .001$). However, JU revealed negative association only with self-esteem ($r = -.21$, $p < .01$). Lastly, PI was found to be positively related to neuroticism ($r = .22$, $p < .01$), external locus of control ($r = .41$, $p < .001$), belief in chance ($r = .34$, $p < .001$), insignificance of struggle ($r = .40$, $p < .001$), fatalism ($r = .29$, $p < .001$), belief in an unfair world ($r = .36$, $p < .001$), positive affect ($r = .20$, $p < .01$), negative affect ($r = .29$, $p < .001$), level of stress in prison ($r = .29$, $p < .001$), emotion-focused coping ($r = .37$, $p < .001$), precontemplation ($r = .36$, $p < .001$), maintenance ($r = .25$, $p < .001$), and pros of offending ($r = .21$, $p < .01$). However, PI was not found to be negatively associated with any of the study variables.

Table 2.10. Correlations between the factors of CTS-Assumptions and CTS-Defensive Strategies Scales

Variables	EN+PO	CR	CH	JU	PI
CR	.35***	1			
CH	-.04	-.21**	1	-	-
JU	.66***	.26***	-.09	1	-
PI	.54***	.58***	-.27***	.47***	1

* $p < .05$, ** $p < .01$, *** $p < .001$.

Note 1. EN+PO = Power-Oriented Assumptions, CR = Injustice-Oriented Assumptions, CH = Cold-Heartedness, JU = Externalizing & Trivializing Strategies, PI = Self-Victimization Strategies.

Table 2.11. Pearson's Correlations between CTS Assumptions and Defensive Strategies scales and Demographic Variables

Variables	EN+PO	CR	CH	JU	PI
Age	-.24***	-.18**	.04	-.07	-.19**
Education	-.10	.01	.18**	-.19**	-.02
Unemployment	-.04	.05	.05	-.13	.02
Age of beginning to work	-.07	-.24**	.01	-.02	-.10
Military status	.12	.01	.07	.14	.06
Number of siblings	-.00	-.02	-.04	.04	.06
Order of birth	.05	-.01	.03	.05	-.04
Alcohol usage problem	.15*	-.03	.09	.24***	.03
Substance use	.22**	.23**	.02	.25***	.14
Separation from the family	.06	.13	-.01	.08	.05
Violence in the family	.17*	.07	.10	.20**	.06
Living in the street	.21**	.06	.02	.32***	.11
Suicide	.04	.02	-.01	.09	.04
Self-harm	.09	.07	.03	.13	.01
Criminal history	.08	.02	.05	.09	-.01
Age of first offence	-.31***	-.16*	-.06	-.15	-.15
Criminal history of family members	-.04	.01	.03	.11	.00
History of non-violent crime	.26***	.12	.09	.20**	.19**
History of violent crime	.14*	.06	.17*	.10	.04
History of sexual crime	-.01	.06	-.08	-.02	.01
History of illegal substance related crime	-.09	-.01	-.05	-.12	-.06

* $p < .05$, ** $p < .01$, *** $p < .001$.

Note 1. EN+PO = Power-Oriented Assumptions, CR = Injustice-Oriented Assumptions, CH = Cold-Heartedness, JU = Externalizing & Trivializing Strategies, PI = Self-victimization strategies.

Note 2. The correlation coefficients that are equal to or larger than .20 were printed in bold.

Table 2.12. Pearson's Correlations between CTS Assumptions and Defensive Strategies scales and Study Variables

Variables	EN+PO	CR	CH	JU	PI
Extraversion	-.18*	.04	.02	-.19**	-.09
Agreeableness	-.20**	.06	-.26***	-.11	.09
Conscientiousness	-.18**	-.10	-.18**	-.16*	-.01
Neuroticism	.36***	.12	.03	.30***	.22**
Openness to Experience	.03	-.00	-.15*	-.00	.15*
Negative Valence	.37***	.06	.19**	.35***	.19**
Locus of Control	.34***	.20**	-.16*	.32***	.41***
Internal Locus of Control	.01	-.00	.20**	-.05	-.12
Belief in Chance	.34***	.20**	-.09	.25***	.34***
Insignificance of Struggle	.45***	.22**	-.01	.37***	.40***
Fatalism	.14	.11	-.16*	.12	.29***
Belief in an Unfair World	.36***	.23***	-.06	.36***	.36***
Positive Affect	.07	.11	-.13	.03	.20**
Negative Affect	.29***	.16*	-.01	.32***	.29***
Level of Stress in Prison	.17*	.34***	-.11	.12	.29***
Problem Focused Coping	-.10	-.03	-.18*	-.08	.07
Emotion Focused Coping	.25***	.07	-.04	.23***	.37***
Indirect Coping	-.01	-.09	-.15*	.10	.11
Precontemplation	.28***	.23***	-.09	.21**	.36***
Contemplation	.02	-.03	-.23***	-.02	.08
Action	-.04	-.02	-.23***	-.02	.13
Maintenance	.20**	.08	-.18**	.22**	.25***
Pros of offending	.52***	.21**	-.17*	.41***	.21**
Cons of offending	-.08	.01	-.21***	-.06	.04
Self-Esteem	-.20**	.02	-.15*	-.21**	.05

* $p < .05$, ** $p < .01$, *** $p < .001$.

Note 1. EN+PO = Power-Oriented Assumptions, CR = Injustice-Oriented Assumptions, CH = Cold-Heartedness, JU = Externalizing & Trivializing Strategies, PI = Self-victimization strategies.

Note 2. The correlation coefficients that are equal to or larger than .20 were printed in bold.

2.1.4.2.3.2. Criterion Validity of CTS-Assumptions Scale and CTS-Defensive Strategies Scale

In order to examine the criterion validity of CTS-Assumptions and CTS-Defensive Strategies Scales, initially, stages of change (i.e., precontemplation, contemplation, action, maintenance), decisional balance (i.e, pros and cons of offending), basic personality traits (i.e., extraversion, agreeableness, conscientiousness, neuroticism, openness to experience, and negative valence), locus of control and dimensions of locus of control (i.e., internal locus of control, belief in chance, insignificance of struggle, fatalism, and belief in an unfair world), positive affect, negative affect, level of stress in prisons, ways of coping (i.e., problem focused coping, emotion focused coping, and indirect coping), and self-esteem were categorized into 3 levels (i.e., low, medium, high; for descriptive information regarding the categories, see Table 2.13). Afterwards the differences between these groups were examined on the basis of dimension of CTS-Assumptions and CTS-Defensive Strategies scales. For these comparisons two consecutive MANOVAs were conducted separately for each scale.

Table 2.13. Descriptive Information of the Variable Categories

Variable	Categories	n	Range	Mean	SD
Precontemplation	Low	66	10-19	16.23	2.40
	Medium	78	19.43-25	22.52	1.81
	High	56	25.14-40	29.49	3.51
Contemplation	Low	67	13-28	23.41	3.86
	Medium	72	29-33	31.20	1.41
	High	61	33.14-40	36.51	2.21
Action	Low	76	14-30	27.74	4.58
	Medium	63	31-35	32.84	1.19
	High	61	36-40	38.05	1.60
Maintenance	Low	66	8-22	17.57	3.58
	Medium	56	22.86-27	29.97	1.25
	High	78	28-40	32.02	3.72
Decisional Balance-Pros	Low	87	12-16	13.77	1.73
	Medium	46	17-20	18.27	1.23
	High	67	20.73-51	27.53	7.01
Decisional Balance-Cons	Low	66	16-42.55	35.57	7.01
	Medium	69	43-50	46.46	2.25
	High	65	50.18-60	54.14	2.72
Extraversion	Low	69	12-26	22.48	2.92
	Medium	77	27-32	29.68	1.59
	High	54	33-40	36.19	2.11
Agreeableness	Low	86	20-36	32.78	3.17
	Medium	53	37-39	37.99	0.83
	High	61	40-40	40	0
Conscientiousness	Low	66	11-32	27.69	4.24
	Medium	70	33-37	34.74	1.30
	High	64	38-40	39.27	0.84
Neuroticism	Low	68	9-19	15.18	2.93
	Medium	67	19.13-26	22.93	2.19
	High	65	27-44	32.31	4.27
Openness to Experience	Low	70	8-23	20.27	3.08
	Medium	70	24-27	25.50	1.10
	High	60	28-30	29.20	0.82
Negative Valence	Low	81	6-8	6.66	0.81
	Medium	59	9-11	9.89	0.71
	High	60	12-24	14.77	2.97
External Locus of Control	Low	66	78-140	126.92	12.21
	Medium	56	141-160	150.85	5.54
	High	68	162.46-207	178.45	11.84
Internal Locus of Control	Low	69	18-31	24.41	4.32
	Medium	64	32-43	37.04	3.12
	High	67	44-83	53.47	7.32

Table 2.13. Cont'd

Variable	Categories	n	Range	Mean	SD
Belief in Chance	Low	67	11-26	22.29	3.44
	Medium	71	27-32	29.42	1.57
	High	62	32.22-48	36.17	2.93
Insignificance of Struggle	Low	66	10-22	17.13	3.79
	Medium	69	23-30	26.48	2.11
	High	65	31-49	36.93	4.80
Fatalism	Low	70	3-9	7.76	1.51
	Medium	63	10-13	11.59	0.98
	High	67	14-15	14.69	0.47
Belief in an Unfair World	Low	78	5-11	8.13	2.10
	Medium	61	12-15	13.31	1.16
	High	61	16-23	19.27	2.18
Positive Affect	Low	66	10-32	26.15	5.48
	Medium	69	32.22-39	36.23	1.96
	High	65	40-50	43.85	3.13
Negative Affect	Low	68	10-21	16.80	3.49
	Medium	70	21.11-28	25.30	2.05
	High	62	29-50	34.99	4.93
Level of Stress in Prison	Low	66	3-71	45.30	19.24
	Medium	66	72-111	90.30	11.15
	High	68	112-198	140.93	21.56
Problem Focused Coping	Low	65	65-89.14	81.05	6.10
	Medium	67	90.07-99.36	94.31	2.98
	High	67	100.15-118.86	106.23	4.11
Emotion Focused Coping	Low	64	37-58	50.71	5.72
	Medium	69	59-71	64.66	3.80
	High	65	72-102	81.44	7.54
Indirect Coping	Low	63	18.55-35	31.32	3.62
	Medium	77	36-41	38.25	1.76
	High	60	42-52	45.78	3.16
Self-Esteem	Low	81	14-29	25.49	3.29
	Medium	54	30-33	31.32	1.17
	High	65	34-40	35.90	1.89
Criminal Thinking-Power oriented assumptions	Low	56	24.29-43.81	37.19	5.21
	Medium	81	44.29-55.71	50.02	3.61
	High	63	57.14-94.29	69.24	10.22
Criminal Thinking-Injustice-Oriented Assumptions	Low	67	10-30	23.32	5.31
	Medium	68	31.67-40	36.42	2.62
	High	65	41.67-50	45.41	3.11
Cold-Heartedness	Low	83	10-12	10.65	0.94
	Medium	58	12.50-16	14.68	0.99
	High	59	18-38	22.37	4.72

Table 2.13. Cont'd

Variable	Categories	n	Range	Mean	SD
Criminal	Low	79	10-20	15.99	3.10
Thinking- Externalizing & Trivializing Strategies	Medium	55	21.67-26.67	23.91	1.84
	High	66	28.33-50	33.16	4.72
Criminal	Low	74	10-28.33	22.41	4.30
Thinking- Self- victimization strategies	Medium	67	30-36.67	33.62	2.44
	High	59	38-50	42.52	3.49

Being CTS-Assumptions scales (i.e., EN+PO, CR, CH) the dependent variable, MANOVA results can be followed from Table 2.14. Regarding stages of change, precontemplation was found to be significantly related to CTS-Assumptions, Multivariate $F(6, 390) = 5.10$, $p < .001$, $\eta^2 = .07$, Wilk's Lambda = .86. When the univariate analyses with Bonferroni correction ($p = .05/3 = .02$) were examined, a significant result was observed for power-oriented assumptions, $F(2, 197) = 10.17$, $p < .02$. Accordingly, participants who reported high ($M = 57.98$) and medium levels of precontemplation ($M = 53.24$) also reported more power-oriented assumptions as compared to the participants who reported low level of precontemplation ($M = 46.93$). Similarly, a significant result was observed for the injustice-oriented assumptions, $F(2, 197) = 7.85$, $p < .02$. Accordingly, participants who reported high level of precontemplation ($M = 39.18$) also reported more injustice-oriented assumptions as compared to the participants who reported medium ($M = 33.75$) and low levels of precontemplation ($M = 32.79$). Moreover, contemplation was found to be significantly related to CTS-Assumptions, Multivariate $F(6, 390) = 3.09$, $p < .01$, $\eta^2 = .05$, Wilk's Lambda = .91. A significant result was observed only for cold-heartedness, $F(2, 197) = 6.38$, $p < .02$. Accordingly, participants who reported low level of contemplation ($M = 16.97$) reported more cold-heartedness than the participants with high level of contemplation ($M = 13.54$). However, participants with medium level of contemplation ($M = 15.17$) did not differ from the participants with low and high levels of contemplation in terms of cold-heartedness. A similar relationship was also observed regarding action, Multivariate $F(6, 390) = 4.56$, $p < .001$, $\eta^2 = .07$, Wilk's Lambda = .87, indicating that a significant result was observed

only for cold-heartedness, $F(2, 197) = 13.15, p < .02$. Accordingly, participants who reported low ($M = 16.67$) and medium levels of contemplation ($M = 16.38$) reported more cold-heartedness than the participants with high level of contemplation ($M = 12.40$). On the other hand, although MANOVA results yielded a significant association in terms of maintenance, Multivariate $F(6, 390) = 2.44, p < .05, \eta^2 = .04$, Wilk's Lambda = .93, the univariate results did not provide a significant effect. In terms of decisional balance, a significant effect was observed only in terms of pros of offending, Multivariate $F(6, 390) = 8.97, p < .001, \eta^2 = .12$, Wilk's Lambda = .77. Univariate results further provided a significant association for power-oriented assumptions, $F(2, 197) = 17.26, p < .02$. Accordingly, participants who reported high level of pros of offending ($M = 60.18$) also reported more power-oriented assumptions as compared to the participants who reported medium ($M = 49.32$) and low levels of pros of offending ($M = 48.22$). Besides, a significant result was obtained for cold-heartedness, $F(2, 197) = 5.27, p < .02$. Accordingly, participants who reported high level of pros of offending ($M = 16.91$) reported more cold-heartedness than the participants with low level of pros of offending ($M = 14.03$). However, participants with medium level of pros of offending ($M = 15.26$) did not differ from the participants with low and high levels of pros of offending in terms of cold-heartedness. Regarding basic personality traits, a significant effect was observed in terms of agreeableness, Multivariate $F(6, 390) = 5.86, p < .001, \eta^2 = .08$, Wilk's Lambda = .84. Univariate results further provided a significant association for power-oriented assumptions, $F(2, 197) = 6.19, p < .02$. Accordingly, participants who reported low level of agreeableness ($M = 56.37$) also reported more power oriented-assumptions as compared to the participants who reported medium ($M = 50.54$) and high levels of agreeableness ($M = 48.68$). Besides, a significant result was obtained for cold-heartedness, $F(2, 197) = 7.11, p < .02$. Accordingly, participants who reported low level of agreeableness ($M = 16.73$) reported more cold-heartedness than the participants with high level of agreeableness ($M = 13.32$). However, participants with medium level of agreeableness ($M = 15.17$) did not differ from the participants with low and high levels of agreeableness in terms of cold-heartedness. Moreover, MANOVA results provided a significant effect in terms of conscientiousness, Multivariate $F(6, 390) = 3.51, p < .01, \eta^2 = .05$, Wilk's Lambda =

.90. Univariate results further provided a significant association for power oriented assumptions, $F(2, 197) = 4.37, p < .02$. Accordingly, participants who reported low level of conscientiousness ($M = 56.58$) also reported more power-oriented assumptions as compared to the participants who reported medium ($M = 51.10$) and high levels of conscientiousness ($M = 49.77$). Besides, a significant result was obtained for cold-heartedness, $F(2, 197) = 4.50, p < .02$. Accordingly, participants who reported low level of conscientiousness ($M = 16.80$) reported more cold-heartedness than the participants with high level of conscientiousness ($M = 13.95$). However, participants with medium level of conscientiousness ($M = 15.06$) did not differ from the participants with low and high levels of conscientiousness in terms of cold-heartedness. Furthermore, MANOVA results provided a significant effect in terms of neuroticism, Multivariate $F(6, 390) = 4.41, p < .001, \eta^2 = .06$, Wilk's Lambda = .88. Univariate results provided a significant association only for power-oriented assumptions, $F(2, 197) = 12.31, p < .02$. Accordingly, participants who reported high level of neuroticism ($M = 59.24$) also reported more power oriented assumptions as compared to the participants who reported medium ($M = 50.00$) and low levels of neuroticism ($M = 48.46$). Additionally, a significant effect of negative valence was obtained, Multivariate $F(6, 390) = 6.90, p < .001, \eta^2 = .10$, Wilk's Lambda = .82. Univariate results provided a significant association only for power oriented-assumptions, $F(2, 197) = 16.94, p < .02$. Accordingly, participants who reported high level of negative valence ($M = 59.71$) also reported more power oriented-assumptions as compared to the participants who reported medium level of negative valence ($M = 53.14$), and this group further reported more power-oriented assumptions than the participants with low level of negative valence ($M = 46.65$). Regarding locus of control, a significant effect was observed in terms of external locus of control, Multivariate $F(6, 390) = 5.02, p < .001, \eta^2 = .07$, Wilk's Lambda = .86. Univariate results further provided a significant association for power-oriented assumptions, $F(2, 197) = 10.41, p < .02$. Accordingly, participants who reported high level of external locus of control ($M = 58.21$) also reported more power-oriented assumptions as compared to the participants who reported medium ($M = 51.43$) and low levels of external locus of control ($M = 47.63$). Besides, a significant result was obtained for cold-heartedness, $F(2, 197) = 4.30, p < .02$. Accordingly,

participants who reported low level of external locus of control ($\underline{M} = 16.46$) reported more cold-heartedness than the participants with high level of external locus of control ($\underline{M} = 13.76$). However, participants with medium level of external locus of control ($\underline{M} = 15.67$) did not differ from the participants with low and high levels of external locus of control in terms of cold-heartedness. Moreover, MANOVA results provided a significant effect in terms of internal locus of control, Multivariate $\underline{F}(6, 390) = 2.50$, $p < .05$, $\eta^2 = .04$, Wilk's Lambda = .93. Univariate results further provided a significant association only for cold-heartedness, $\underline{F}(2, 197) = 4.67$, $p < .02$. Accordingly, participants who reported high level of internal locus of control ($\underline{M} = 16.90$) also reported more cold-heartedness as compared to the participants who reported medium ($\underline{M} = 14.83$) and low levels of internal locus of control ($\underline{M} = 14.12$). Regarding dimensions of locus of control, MANOVA results provided a significant effect in terms of belief in chance, Multivariate $\underline{F}(6, 390) = 4.43$, $p < .001$, $\eta^2 = .06$, Wilk's Lambda = .88. Univariate results further provided a significant association for power oriented assumptions, $\underline{F}(2, 197) = 11.59$, $p < .02$. Accordingly, participants who reported high level of belief in chance ($\underline{M} = 58.50$) also reported more power-oriented assumptions as compared to the participants who reported medium level of belief in chance ($\underline{M} = 52.39$), and this group also reported more power-oriented assumptions than the participants with low level of belief in chance ($\underline{M} = 47.02$). Similarly, a significant result was observed for the injustice-oriented assumptions, $\underline{F}(2, 197) = 4.84$, $p < .02$. Accordingly, participants who reported high level of belief in chance ($\underline{M} = 37.91$) reported more injustice-oriented assumptions than the participants with low level of belief in chance ($\underline{M} = 32.69$). However, participants with medium level of belief in chance ($\underline{M} = 34.51$) did not differ from the participants with low and high levels of belief in chance in terms of the injustice-oriented assumptions. Furthermore, MANOVA results provided a significant effect in terms of insignificance of struggle, Multivariate $\underline{F}(6, 390) = 6.58$, $p < .001$, $\eta^2 = .09$, Wilk's Lambda = .83. Univariate results further provided a significant association for power-oriented assumptions, $\underline{F}(2, 197) = 11.59$, $p < .02$. Accordingly, participants who reported high level of insignificance of struggle ($\underline{M} = 59.10$) also reported more power-oriented assumptions as compared to the participants who reported medium level of insignificance of struggle ($\underline{M} = 52.42$),

and this group also reported more power-oriented assumptions than the participants with low level of insignificance of struggle ($\underline{M} = 46.03$). Besides, a significant result was observed for the injustice-oriented assumptions, $\underline{F}(2, 197) = 7.76, p < .02$. Accordingly, participants who reported high ($\underline{M} = 37.03$) and medium levels of insignificance of struggle ($\underline{M} = 36.61$) reported more injustice-oriented assumptions than the participants with low level of insignificance of struggle ($\underline{M} = 31.18$). Additionally, a significant effect of belief in an unjust world was obtained, Multivariate $\underline{F}(6, 390) = 4.68, p < .001, \eta^2 = .07$, Wilk's Lambda = .87. Univariate results further provided a significant association for power-oriented assumptions, $\underline{F}(2, 197) = 9.36, p < .02$. Accordingly, participants who reported high level of belief in an unjust world ($\underline{M} = 58.21$) reported more power-oriented assumptions than the participants with medium ($\underline{M} = 52.34$) and low levels of belief in an unjust world ($\underline{M} = 48.11$). Besides, a significant result was observed for the injustice-oriented assumptions, $\underline{F}(2, 197) = 5.13, p < .02$. Accordingly, participants who reported high level of belief in an unjust world ($\underline{M} = 37.62$) reported more injustice-oriented assumptions than the participants with low level of belief in an unjust world ($\underline{M} = 32.42$). However, participants with medium level of belief in an unjust world ($\underline{M} = 35.52$) did not differ from the participants with low and high levels of belief in an unjust world in terms of the injustice-oriented assumptions. MANOVA results did not provide significant effects of ways of coping in terms of CTS-Assumptions. However, a significant effect of self-esteem was obtained, Multivariate $\underline{F}(6, 390) = 3.75, p < .001, \eta^2 = .05$, Wilk's Lambda = .84. Univariate results provided a significant association only for power-oriented assumptions, $\underline{F}(2, 197) = 13.12, p < .02$. Accordingly, participants who reported low level of self-esteem ($\underline{M} = 56.29$) reported more power-oriented assumptions than the participants with medium ($\underline{M} = 49.36$) and low levels of self-esteem ($\underline{M} = 50.33$). Furthermore, a significant effect of level of stress in prison was obtained, Multivariate $\underline{F}(6, 390) = 4.58, p < .001, \eta^2 = .07$, Wilk's Lambda = .87. Univariate results provided a significant association only for the injustice-oriented assumptions, $\underline{F}(2, 197) = 13.12, p < .02$. Accordingly, participants who reported high ($\underline{M} = 38.27$) and medium levels of stress in prison ($\underline{M} = 36.17$) reported more injustice-oriented assumptions than the participants with low level of stress in prison ($\underline{M} = 30.32$). Finally, a significant effect of negative affect

was obtained, Multivariate $F(6, 390) = 2.78, p < .05, \eta^2 = .04, \text{Wilk's Lambda} = .92$. Univariate results provided a significant association only for power-oriented assumptions, $F(2, 197) = 6.97, p < .02$. Accordingly, participants who reported high level of negative affect ($M = 57.90$) reported more power-oriented assumptions than the participants with medium ($M = 50.49$) and low levels of negative affect ($M = 49.59$).

Table 2.14. Criterion Validity Information Regarding CTS-Assumptions Scale

IV	Groups	EN+PO	CR	CH	Multivar. F	Multivar. df	Univar. F	Univar. df	η^2	Wilk's Lambda
PRECON					5.10***	6, 390	10.17 for EN+PO; 7.85 for CR	2, 197	.07	.86
	Low	46.93a	32.79a	16.24						
	Medium	53.24b	33.75a	15.03						
	High	57.98b	39.18b	14.48						
CONT					3.09**	6, 390	6.38 for CH	2, 197	.05	.91
	Low	54.01	34.78	16.97a						
	Medium	49.72	35.23	15.17ab						
	High	54.06	34.83	13.54b						
ACTION					4.56***	6, 390	13.15 for CH	2, 197	.07	.87
	Low	53.29	35.08	16.67a						
	Medium	50.90	33.28	16.38a						
	High	53.12	36.53	12.40b						
MAINT					2.44*	6, 390	-	2, 197	.04	.93
	Low	49.76	34.22	16.56						
	Medium	51.30	34.15	15.57						
	High	55.64	36.15	13.98						
PROS					8.97***	6, 390	17.26 for EN+PO; 5.27 for CH	2, 197	.12	.77
	Low	48.22a	32.97	14.03a						
	Medium	49.32a	36.58	15.26ab						
	High	60.18b	36.42	16.91b						
CONS					1.50	6, 390	-	2, 197	.02	.96
	Low	53.87	35.58	16.67						
	Medium	51.90	35.02	14.94						
	High	51.69	34.26	14.22						

Table 2.14. Cont'd

IV	Groups	EN+PO	CR	CH	Multivar. F	Multivar. df	Univar. F	Univar. df	η^2	Wilk's Lambda
E					1.51*	6, 390	-	2, 197	.02	.96
	Low	55.91	35.26	15.14						
	Medium	51.30	34.07	15.17						
	High	49.79	35.80	15.61						
A					5.86***	6, 390	6.19 for EN+PO; 7.11 for CH	2, 197	.08	.84
	Low	56.37a	33.88	16.73a						
	Medium	50.54b	36.86	15.17ab						
	High	48.68b	34.81	13.32b						
C					3.51**	6, 390	4.37 for EN+PO; 4.50 for CH	2, 197	.05	.90
	Low	56.58a	36.64	16.80a						
	Medium	51.10b	34.41	15.06ab						
	High	49.77b	33.80	13.95b						
N					4.41***	6, 390	12.31 for EN+PO	2, 197	.06	.88
	Low	48.46a	34.68	15.29						
	Medium	50.00a	33.10	15.05						
	High	59.24b	37.15	15.49						
O					1.71	6, 390	-	2, 197	.03	.95
	Low	52.15	35.07	16.63						
	Medium	51.09	35.17	14.84						
	High	54.49	34.57	14.21						
NV					6.90***	6, 390	16.94 for EN+PO	2, 197	.10	.82
	Low	46.65a	34.42	14.19						
	Medium	53.14b	34.39	15.66						
	High	59.71c	36.23	16.37						

Table 2.14. Cont'd

IV	Groups	EN+PO	CR	CH	Multivar. F	Multivar. df	Univar. F	Univar. df	η^2	Wilk's Lambda
LOC					5.02***	6, 390	10.41 for EN+PO; 4.30 for CH	2, 197	.07	.86
	Low	47.63a	32.41	16.46a						
	Medium	51.43a	35.25	15.67ab						
INTLOC	High	58.21b	37.13	13.76b	2.50*	6, 390	4.67 for CH	2, 197	.04	.93
	Low	52.38	33.87	14.12a						
	Medium	51.82	36.99	14.83a						
LOC-C	High	53.22	34.11	16.90b	4.43***	6, 390	11.59 for EN+PO; 4.84 for CR	2, 197	.06	.88
	Low	47.02a	32.69a	15.97						
	Medium	52.39b	34.51ab	15.36						
LOC-S	High	58.50c	37.91b	14.44	6.58***	6, 390	15.86 for EN+PO; 7.76 for CR	2, 197	.09	.83
	Low	46.03a	31.18a	15.00						
	Medium	52.42b	36.61b	15.66						
LOC-F	High	59.10c	37.03b	15.15	1.44	6, 390	-	2, 197	.02	.96
	Low	50.10	33.52	16.43						
	Medium	54.18	35.58	15.12						
LOC-U	High	53.37	35.86	14.22	4.68***	6, 390	9.36 for EN+PO; 5.13 for CR	2, 197	.07	.87
	Low	48.11a	32.42a	15.03						
	Medium	52.34a	35.52ab	16.60						
	High	58.21b	37.62b	14.28						

Table 2.14. Cont'd

IV	Groups	EN+PO	CR	CH	Multivar. F	Multivar. df	Univar. F	Univar. df	η^2	Wilk's Lambda
PROBLEM					3.51**	6, 390	-	2, 197	.05	.90
	Low	55.07	34.62	16.34						
	Medium	51.84	37.16	15.82						
	High	50.77	33.05	13.78						
EMOTION					1.97	6, 390	-	2, 197	.03	.94
	Low	49.00	34.10	15.73						
	Medium	51.26	34.07	15.06						
	High	56.78	36.50	15.11						
INDIRECT					1.73	6, 390	-	2, 197	.03	.95
	Low	54.17	35.94	15.97						
	Medium	49.98	35.12	15.43						
	High	53.92	33.71	14.36						
RSE					3.75***	6, 390	5.14 for EN+PO	2, 197	.05	.84
	Low	56.29a	35.54	16.35						
	Medium	49.36b	32.30	14.35						
	High	50.33b	36.44	14.71						
LEIP					4.58***	6, 390	13.12 for CR	2, 197	.07	.87
	Low	48.77	30.32a	15.79						
	Medium	54.73	36.17b	15.49						
	High	53.90	38.27b	14.58						

Table 2.14. Cont'd

IV	Groups	EN+PO	CR	CH	Multivar. F	Multivar. df	Univar. F	Univar. df	η^2	Wilk's Lambda
PAS					2.08	6, 390	-	2, 197	.03	.94
	Low	50.75	32.89	16.46						
	Medium	52.57	36.79	15.33						
	High	54.15	35.10	14.02						
NAS					2.78*	6, 390	6.97 for EN+PO	2, 197	.04	.92
	Low	49.59a	33.17	15.87						
	Medium	50.49a	34.90	14.61						
	High	57.90b	36.97	15.39						

* $p < .05$, ** $p < .01$, *** $p < .001$

Note. EN+PO = Power-oriented assumptions, CR = Injustice-oriented assumptions, CH = Cold-Heartedness, PRECON = Precontemplation, CONT = Contemplation, ACTION = Action, MAINT = Maintenance, PROS = Pros of offending, CONS = Cons of offending, E = Extraversion, A = Agreeableness, C = Conscientiousness, N = Neuroticism, O = Openness to Experience, NV = Negative Valence, LOC = Locus of Control, INT LOC = Internal Locus of Control, LOC-C = Belief in Chance, LOC-S = Insignificance of Struggle, LOC-F = Fatalism, LOC-U = Belief in an Unfair World, PROBLEM = Problem Focused Coping, EMOTION = Emotion Focused Coping, INDIRECT = Indirect Coping, RSE = Self-Esteem, LEIP = Level of Stress in Prisons, PAS = Positive Affect, NAS = Negative Affect.
Note 2. The mean scores that do not share the same subscript on the same column for each scale are significantly different from each other.

Being CTS-Defensive Strategies scales (i.e., JU, PI) the dependent variable, MANOVA results can be followed from Table 2.15. Regarding stages of change, precontemplation was found to be significantly related to CTS-Defensive Strategies, Multivariate $F(4, 392) = 8.25, p < .001, \eta^2 = .08, \text{Wilk's Lambda} = .85$. When the univariate analyses with Bonferroni correction ($p = .05/2 = .025$) were examined, a significant result was observed for externalizing and trivializing strategies (i.e., JU), $F(2, 197) = 7.29, p < .025$. Accordingly, participants who reported high ($M = 25.58$) and medium levels of precontemplation ($M = 25.12$) also reported more externalizing and trivializing strategies as compared to the participants who reported low level of precontemplation ($M = 20.83$). Similarly, a significant result was observed for Self-victimization strategies (i.e., PI), $F(2, 197) = 14.29, p < .025$. Accordingly, participants who reported high level of precontemplation ($M = 36.48$) utilized more from Self-victimization strategies as compared to the participants who reported medium level of precontemplation ($M = 32.16$), and this group further engaged in more Self-victimization strategies than the participants with low level of precontemplation ($M = 28.31$). Moreover, action was found to be significantly related to CTS-Defensive Strategies, Multivariate $F(4, 392) = 2.68, p < .05, \eta^2 = .03, \text{Wilk's Lambda} = .95$. A significant result was observed only for Self-victimization strategies, $F(2, 197) = 4.64, p < .025$. Accordingly, participants who reported high level of action ($M = 34.95$) reported more Self-victimization strategies than the participants with medium ($M = 31.02$) low levels of action ($M = 30.70$). A similar relationship was also observed regarding maintenance, Multivariate $F(6, 4, 392) = 2.98, p < .05, \eta^2 = .03, \text{Wilk's Lambda} = .94$, indicating that a significant result was observed only for Self-victimization strategies, $F(2, 197) = 5.52, p < .025$. Accordingly, participants who reported high level of maintenance ($M = 34.44$) reported more Self-victimization strategies than the participants with low level of maintenance ($M = 29.60$). However, participants with medium level of maintenance ($M = 31.78$) did not differ from the participants with low and high levels of maintenance in terms of Self-victimization strategies. In terms of decisional balance, a significant effect was observed only in terms of pros of offending, Multivariate $F(4, 392) = 5.65, p < .001, \eta^2 = .05, \text{Wilk's Lambda} = .89$. Univariate results further provided a significant association for externalizing and trivializing strategies, $F(2,$

197) = 11.42, $p < .025$. Accordingly, participants who reported high level of pros of offending ($M = 27.12$) also reported more externalizing and trivializing strategies as compared to the participants who reported medium ($M = 24.11$) and low levels of pros of offending ($M = 21.16$). Regarding basic personality traits, a significant effect was observed in terms of extraversion, Multivariate $F(4, 392) = 3.74$, $p < .01$, $\eta^2 = .04$, Wilk's Lambda = .93. Univariate results further provided a significant association for Self-victimization strategies, $F(2, 197) = 5.01$, $p < .025$. Accordingly, participants who reported low ($M = 33.96$) and high levels of extraversion ($M = 33.22$) utilized more from Self-victimization strategies as compared to the participants who reported medium level of extraversion ($M = 29.64$). Furthermore, MANOVA results provided a significant effect in terms of neuroticism, Multivariate $F(4, 392) = 6.76$, $p < .001$, $\eta^2 = .07$, Wilk's Lambda = .88. Univariate results further provided a significant association for externalizing and trivializing strategies, $F(2, 197) = 10.06$, $p < .025$. Accordingly, participants who reported high level of neuroticism ($M = 27.16$) reported more externalizing and trivializing strategies as compared to the participants who reported medium ($M = 23.26$) and low levels of neuroticism ($M = 21.23$). Univariate results further provided a significant association for Self-victimization strategies, $F(2, 197) = 7.19$, $p < .025$. Accordingly, participants who reported high level of neuroticism ($M = 35.34$) also reported more Self-victimization strategies as compared to the participants who reported medium ($M = 29.81$) and low levels of neuroticism ($M = 31.25$). Additionally, a significant effect of negative valence was obtained, Multivariate $F(4, 392) = 7.91$, $p < .001$, $\eta^2 = .08$, Wilk's Lambda = .86. Univariate results provided a significant association only for externalizing and trivializing strategies, $F(2, 197) = 15.31$, $p < .025$. Accordingly, participants who reported high level of negative valence ($M = 28.32$) engaged in more externalizing and trivializing strategies as compared to the participants who reported medium ($M = 22.41$) and low levels of negative valence ($M = 21.56$). Regarding locus of control, a significant effect was observed in terms of external locus of control, Multivariate $F(4, 392) = 10.18$, $p < .001$, $\eta^2 = .09$, Wilk's Lambda = .82. Univariate results further provided a significant association for externalizing and trivializing strategies, $F(2, 197) = 9.73$, $p < .025$. Accordingly, participants who reported high level of external locus of control ($M = 26.98$) also

reported more externalizing and trivializing strategies as compared to the participants who reported medium ($M = 23.29$) and low levels of external locus of control ($M = 21.15$). Besides, a significant result was obtained for Self-victimization strategies, $F(2, 197) = 19.79, p < .025$. Accordingly, participants who reported high level of external locus of control ($M = 36.77$) reported more Self-victimization strategies than the participants with medium level of external locus of control ($M = 31.35$) and these participants also engaged in more Self-victimization strategies than the participants with low level of external locus of control ($M = 28.03$). Moreover, MANOVA results provided a significant effect in terms of internal locus of control, Multivariate $F(4, 392) = 3.49, p < .01, \eta^2 = .03, \text{Wilk's Lambda} = .93$. Univariate results further provided a significant association only for Self-victimization strategies, $F(2, 197) = 5.33, p < .025$. Accordingly, participants who reported medium level of internal locus of control ($M = 34.63$) engaged in more Self-victimization strategies as compared to the participants who reported high level of internal locus of control ($M = 29.63$). However, participants with low level of internal locus of control ($M = 32.15$) did not differ from the participants with medium and high levels of internal locus of control in terms of Self-victimization strategies. Regarding dimensions of locus of control, MANOVA results provided a significant effect in terms of belief in chance, Multivariate $F(4, 392) = 6.97, p < .001, \eta^2 = .07, \text{Wilk's Lambda} = .87$. Univariate results further provided a significant association for externalizing and trivializing strategies, $F(2, 197) = 7.27, p < .025$. Accordingly, participants who reported high ($M = 26.38$) and medium levels of belief in chance ($M = 24.16$) engaged in more externalizing and trivializing strategies as compared to the participants who reported low level of belief in chance ($M = 21.14$). Similarly, a significant result was observed for Self-victimization strategies, $F(2, 197) = 12.19, p < .025$. Accordingly, participants who reported high level of belief in chance ($M = 36.27$) engaged in more Self-victimization strategies than the participants with medium ($M = 31.37$) and low levels of belief in chance ($M = 29.01$). Furthermore, MANOVA results provided a significant effect in terms of insignificance of struggle, Multivariate $F(4, 392) = 9.57, p < .001, \eta^2 = .09, \text{Wilk's Lambda} = .83$. Univariate results further provided a significant association for externalizing and trivializing strategies, $F(2, 197) = 10.12, p < .025$. Accordingly, participants who reported high ($M = 26.61$) and medium

levels of insignificance of struggle ($\underline{M} = 24.32$) engaged in more externalizing and trivializing strategies as compared to the participants who reported low level of insignificance of struggle ($\underline{M} = 20.60$). Besides, a significant result was observed for Self-victimization strategies, $\underline{F}(2, 197) = 17.44, p < .025$. Accordingly, participants who reported high level of insignificance of struggle ($\underline{M} = 36.11$) engaged in more Self-victimization strategies than the participants with medium level of insignificance of struggle ($\underline{M} = 32.61$), and these participants also reported more Self-victimization strategies than the participants with low level of insignificance of struggle ($\underline{M} = 27.60$). Moreover, MANOVA results provided a significant effect in terms of fatalism, Multivariate $\underline{F}(4, 392) = 4.23, p < .01, \eta^2 = .04, \text{Wilk's Lambda} = .92$. Univariate results further provided a significant association for Self-victimization strategies, $\underline{F}(2, 197) = 8.42, p < .025$. Accordingly, participants who reported high ($\underline{M} = 34.46$) and medium levels of fatalism ($\underline{M} = 33.32$) engaged in more Self-victimization strategies than the participants with low level of fatalism ($\underline{M} = 28.74$). Additionally, a significant effect of belief in an unjust world was obtained, Multivariate $\underline{F}(4, 392) = 8.04, p < .001, \eta^2 = .08, \text{Wilk's Lambda} = .85$. Univariate results further provided a significant association for externalizing and trivializing strategies, $\underline{F}(2, 197) = 11.82, p < .025$. Accordingly, participants who reported high level of belief in an unjust world ($\underline{M} = 27.45$) engaged in more externalizing and trivializing strategies than the participants with medium ($\underline{M} = 23.74$) and low levels of belief in an unjust world ($\underline{M} = 21.18$). Besides, a significant result was observed for Self-victimization strategies, $\underline{F}(2, 197) = 11.42, p < .025$. Accordingly, participants who reported high ($\underline{M} = 35.59$) and medium levels of belief in an unjust world ($\underline{M} = 32.90$) engaged in more Self-victimization strategies than the participants with low level of belief in an unjust world ($\underline{M} = 28.74$). Regarding ways of coping, a significant effect was observed in terms of emotion-focused coping, Multivariate $\underline{F}(4, 392) = 8.02, p < .001, \eta^2 = .08, \text{Wilk's Lambda} = .85$. Univariate results further provided a significant association for externalizing and trivializing strategies, $\underline{F}(2, 197) = 4.79, p < .025$. Accordingly, participants who reported high level of emotion-focused coping ($\underline{M} = 26.15$) engaged in more externalizing and trivializing strategies as compared to the participants who reported medium ($\underline{M} = 22.73$) and low levels of emotion-focused coping ($\underline{M} = 22.33$). Besides, a significant result was obtained for

Self-victimization strategies, $F(2, 197) = 16.49, p < .025$. Accordingly, participants who reported high level of emotion-focused coping ($M = 36.80$) engaged in more Self-victimization strategies than the participants with medium ($M = 30.35$) and low levels of emotion-focused coping ($M = 28.93$). In addition, a significant effect of self-esteem was obtained, Multivariate $F(4, 392) = 4.96, p < .001, \eta^2 = .05$, Wilk's Lambda = .91. Univariate results provided a significant association only for externalizing and trivializing strategies, $F(2, 197) = 4.32, p < .025$. Accordingly, participants who reported low level of self-esteem ($M = 25.83$) engaged in more externalizing and trivializing strategies than the participants with medium ($M = 22.25$) and high levels of self-esteem ($M = 22.67$). Furthermore, a significant effect of level of stress in prison was obtained, Multivariate $F(4, 392) = 5.39, p < .001, \eta^2 = .05$, Wilk's Lambda = .90. Univariate results provided a significant association only for Self-victimization strategies, $F(2, 197) = 10.50, p < .025$. Accordingly, participants who reported high ($M = 34.47$) and medium levels of stress in prison ($M = 35.57$) engaged in more Self-victimization strategies than the participants with low level of stress in prison ($M = 28.18$). Regarding positive and negative affect, a significant effect of positive affect was obtained, Multivariate $F(4, 392) = 3.05, p < .05, \eta^2 = .03$, Wilk's Lambda = .94. Univariate results provided a significant association only for Self-victimization strategies, $F(2, 197) = 5.59, p < .025$. Accordingly, participants who reported high ($M = 34.02$) and medium levels of positive affect ($M = 33.05$) engaged in more Self-victimization strategies than the participants with low level of positive affect ($M = 29.20$). Finally, a significant impact of negative affect was obtained, Multivariate $F(4, 392) = 7.09, p < .001, \eta^2 = .07$, Wilk's Lambda = .87. Univariate results further provided a significant association for externalizing and trivializing strategies, $F(2, 197) = 9.79, p < .025$. Accordingly, participants who reported high level of negative affect ($M = 27.34$) engaged in more externalizing and trivializing strategies than the participants with medium ($M = 22.97$) and low levels of negative affect ($M = 21.53$). Besides, a significant association was observed for Self-victimization strategies, $F(2, 197) = 10.73, p < .025$. Accordingly, participants who reported high level of negative affect ($M = 36.27$) engaged in more Self-victimization strategies than the participants with medium ($M = 30.38$) and low levels of negative affect ($M = 30.06$).

Table 2.15. Criterion Validity Information Regarding CTS-Defensive Strategies Scale

IV	Groups	JU	PI	Multivariate F	Multivariate df	Univariate F	Univariate df	η^2	Wilk's Lambda
PRECON				8.25***	4, 392	7.29 for JU; 14.29 for PI	2, 197	.08	.85
	Low	20.83a	28.31a						
	Medium	25.12b	32.16b						
CONT	High	25.58b	36.48c	1.56	4, 392	-	2, 197	.02	.97
	Low	24.56	31.47						
	Medium	22.22	31.68						
ACTION	High	24.95	33.28	2.68*	4, 392	4.64 for PI	2, 197	.03	.95
	Low	24.04	30.70a						
	Medium	22.76	31.02a						
MAINT	High	24.69	34.95b	2.98*	4, 392	5.52 for PI	2, 197	.03	.94
	Low	22.14	29.60a						
	Medium	23.68	31.78ab						
PROS	High	25.39	34.44b	5.65***	4, 392	11.42 for JU	2, 197	.05	.89
	Low	21.16a	30.86						
	Medium	24.11a	32.68						
CONS	High	27.12b	33.30	.18	4, 392	-	2, 197	.002	.996
	Low	24.38	32.43						
	Medium	23.21	31.69						
	High	23.94	32.19						

Table 2.15. Cont'd

IV	Groups	JU	PI	Multivariate F	Multivariate df	Univariate F	Univariate df	η^2	Wilk's Lambda
E				3.74**	4, 392	5.01 for PI	2, 197	.04	.93
	Low	25.92	33.96a						
	Medium	22.75	29.64b						
A	High	22.72	33.22a	1.56	4, 392	-	2, 197	.02	.97
	Low	24.85	31.40						
	Medium	23.10	32.99						
C	High	23.04	32.30	1.41	4, 392	-	2, 197	.01	.97
	Low	25.63	32.38						
	Medium	22.77	31.98						
N	High	23.15	31.93	6.76***	4, 392	10.06 for JU; 7.19 for PI	2, 197	.07	.88
	Low	21.23a	31.25a						
	Medium	23.26a	29.81a						
O	High	27.16b	35.34b	.62	4, 392	-	2, 197	.01	.99
	Low	23.52	31.08						
	Medium	24.33	32.23						
NV	High	23.62	33.12	7.91***	4, 392	15.31 for JU	2, 197	.08	.86
	Low	21.56a	30.17						
	Medium	22.41a	32.57						
	High	28.32b	34.23						

Table 2.15. Cont'd

IV	Groups	JU	PI	Multivariate F	Multivariate df	Univariate F	Univariate df	η^2	Wilk's Lambda
LOC				10.18***	4, 392	9.73 for JU; 19.79 for PI	2, 197	.09	.82
	Low	21.15a	28.03a						
	Medium	23.29a	31.35b						
INTLOC	High	26.98b	36.77c						
	Low	24.05	32.15ab	3.49**	4, 392	5.33 for PI	2, 197	.03	.93
	Medium	23.67	34.63a						
LOC-C	High	23.77	29.63b						
	Low	21.14a	29.01a	6.97***	4, 392	7.27 for JU; 12.19 for PI	2, 197	.07	.87
	Medium	24.16b	31.37a						
LOC-S	High	26.38b	36.27b						
	Low	20.60a	27.60a	9.57***	4, 392	10.12 for JU; 17.44 for PI	2, 197	.09	.83
	Medium	24.32b	32.61b						
LOC-F	High	26.61b	36.11c						
	Low	22.82	28.74a	4.23**	4, 392	8.42 for PI	2, 197	.04	.92
	Medium	24.32	33.32b						
LOC-U	High	24.44	34.46b						
	Low	21.08a	28.74a	8.04***	4, 392	11.82 for JU; 11.42 for PI	2, 197	.08	.85
	Medium	23.74a	32.90b						
	High	27.45b	35.59b						

Table 2.15. Cont'd

IV	Groups	JU	PI	Multivariate F	Multivariate df	Univariate F	Univariate df	η^2	Wilk's Lambda
PROBLEM				1.61	4, 392	-	2, 197	.02	.97
	Low	25.15	31.42						
	Medium	22.74	32.58						
	High	23.56	32.40						
EMOTION				8.02***	4, 392	4.79 for JU; 16.49 for PI	2, 197	.08	.85
	Low	22.33a	28.93a						
	Medium	22.73a	30.35a						
	High	26.15b	36.80b						
INDIRECT				1.39	4, 392	-	2, 197	.01	.97
	Low	23.60	31.78						
	Medium	22.78	30.85						
	High	25.43	34.03						
RSE				4.96***	4, 392	4.32 for JU	2, 197	.05	.91
	Low	25.83a	32.09						
	Medium	22.25b	29.69						
	High	22.67b	34.11						
LEIP				5.39***	4, 392	10.50 for PI	2, 197	.05	.90
	Low	21.76	28.18a						
	Medium	25.22	35.57b						
	High	24.51	34.47b						

Table 2.15. Cont'd

IV	Groups	JU	PI	Multivariate F	Multivariate df	Univariate F	Univariate df	η^2	Wilk's Lambda
PAS				3.05*	4, 392	5.59 for PI	2, 197	.03	.94
	Low	23.28	29.20a						
	Medium	24.22	33.05b						
NAS	High	23.99	34.02b						
				7.09***	4, 392	9.79 for JU; 10.73 for PI	2, 197	.07	.87
	Low	21.53a	30.06a						
	Medium	22.97a	30.38a						
	High	27.34b	36.27b						

* $p < .05$, ** $p < .01$, *** $p < .001$

Note. JU = Externalizing & Trivializing Strategies, PI = Self-victimization strategies, CH = Cold-Heartedness, PRECON = Precontemplation, CONT = Contemplation, ACTION = Action, MAINT = Maintenance, PROS = Pros of offending, CONS = Cons of offending, E = Extraversion, A = Agreeableness, C = Conscientiousness, N = Neuroticism, O = Openness to Experience, NV = Negative Valence, LOC = Locus of Control, INT LOC = Internal Locus of Control, LOC-C = Belief in Chance, LOC-S = Insignificance of Struggle, LOC-F = Fatalism, LOC-U = Belief in an Unfair World, PROBLEM = Problem Focused Coping, EMOTION = Emotion Focused Coping, INDIRECT = Indirect Coping, RSE = Self-Esteem, LEIP = Level of Stress in Prisons, PAS = Positive Affect, NAS = Negative Affect.

Note 2. The mean scores that do not share the same subscript on the same column for each scale are significantly different from each other.

2.1.4.3. Psychometric Properties of SOCS-C

2.1.4.3.1. Factor Structure of SOCS-C

A varimax rotated principle components analysis with 4-factor solution was conducted with the items of SOCS-C. As can be seen in Table 2.16, the eigenvalues of the factors (Contemplation, Action, Maintenance, and Precontemplation) were 5.37, 4.71, 2.39, and 2.27 and they explained 16.78, 14.72, 7.47, and 7.08 % of the total variance, respectively. Considering item loadings; there were 8 items representing Contemplation with item loadings ranging from .03 to .74, 8 items representing Action with item loadings ranging from .12 to .76, 8 items representing Maintenance with item loadings ranging from .01 to .61, and 8 items representing Precontemplation with item loadings ranging from .11 to .64.

When the factor structure of SOCS-C is examined in detail, it is noticed that there are certain cross-loaded items. For instance, while some of the items of contemplation (i.e., Item # 15, 8, 4, and 2) seem to be better represented by “action”, some items of action (i.e., Item # 25, 27, 14, and 20) seem to be better represented by “contemplation”. Moreover, it is observed that most of the items of maintenance (i.e., Item # 18, 6, 9, 27, 22, and 16) have also received high loadings from “contemplation”.

Table 2.16. Varimax Rotated Factor Loadings of the SOCS-C Items

ITEM #	I	II	III	IV
<u>I.Contemplation</u>				
Item # 21	.74	-.01	.01	-.08
Item # 24	.73	.16	-.11	.03
Item # 19	.62	.21	.26	.14
Item # 12	.43	.45	-.15	-.21
Item # 15	.26	.41	.61	-.06
Item # 8	.15	.58	.23	-.04
Item # 4	.10	.63	-.10	.09
Item # 2	.03	.58	-.04	.03
<u>II.Action</u>				
Item # 3	-.05	.76	.01	.01
Item # 7	.16	.69	.02	-.16
Item # 10	.25	.68	.06	-.02
Item # 30	.39	.53	.10	-.08
Item # 25	.49	.51	.19	-.02
Item # 17	.53	.40	.15	.03
Item # 14	.38	.33	.54	-.10
Item # 20	.72	.12	.32	.12
<u>III.Maintenance</u>				
Item # 32	.24	.08	.61	.15
Item # 28	.23	-.13	.53	.30
Item # 18	.56	.15	.40	.05
Item # 6	.30	.55	.23	-.10
Item # 9	.45	.13	.18	-.01
Item # 27	.62	.15	.17	.03
Item # 22	.77	.09	.13	-.02
Item # 16	.55	.29	.01	.10
<u>IV.Precontemplation</u>				
Item # 26	.13	-.16	.21	.64
Item # 11	-.22	-.08	.01	.60
Item # 5	-.10	-.20	-.12	.53
Item # 23	.29	.28	.09	.51
Item # 29	.02	.08	.18	.50
Item # 13	.14	.29	-.41	.47
Item # 1	.10	.03	-.38	.46
Item # 31	.18	.38	.16	.11
Eigenvalue	5.37	4.71	2.39	2.27
Explained Variance (%)	16.78	14.72	7.47	7.08

2.1.4.3.2. Reliability of SOCS-C

The internal consistency coefficients (i.e., Cronbach alpha coefficients), the ranges for the item-total correlations, and the test-retest reliability values for the subscales of SOCS-C are provided in Table 2.17.A, 2.17.B, and 2.17.C, respectively. As can be followed from Table 2.17.A, the sub-scales generally revealed good internal reliability coefficients, ranging between .60 and .83. The item-total correlation coefficients for the SOCS-C sub-scales ranged between .12 and .69. Finally, the test-retest reliability coefficients were found to be ranging between .55 and .68, all significant at the $p < .001$ value.

Table 2.17. Reliability Information Regarding SOCS-C

	Contemp.	Action	Maint.	Precon.
A. Internal Consistency Coefficients	.73	.83	.78	.60
B. Item-Total Correlation Range	.29-.53	.43-.69	.37-.59	.12-.43
C. Test-Retest Reliability	.55*	.65*	.60*	.68*

* $p < .001$

Note. PRECON = Precontemplation, CONT = Contemplation, ACTION = Action, MAINT = Maintenance

2.1.4.3.3. Validity of SOCS-C

2.1.4.3.3.1. Concurrent Validity of SOCS-C

In order to investigate the concurrent validity of SOCS-C, the SOCS-C scales (i.e., Precontemplation, Contemplation, Action, and Maintenance) were subjected to correlational analysis with demographic and other study variables. For the concurrent validity information, zero-orders were taken into account, where the Pearson Correlation Coefficient is equal to or exceeds .20.

Table 2.18 presents the Pearson Correlations with demographic variables. Accordingly, only the Maintenance subscale revealed significant zero-order correlations with education ($r = -.24, p < .001$), experience of living in streets ($r = .23, p < .01$), and history of self-harm ($r = .25, p < .001$).

Table 2.19 displays the Pearson Correlations between SOCS-C scales and personality and locus of control variables. Accordingly, Precontemplation revealed

significant zero-order correlations with locus of control ($r = .41, p < .001$), and with all dimensions of external locus of control at the $p < .001$ level (.34, .42, .31, and .33 for belief in chance, insignificance of struggle, fatalism, and belief in an unfair world, respectively). Similarly, Maintenance also revealed significant zero-order correlations with locus of control ($r = .42, p < .001$), internal locus of control ($r = -.31, p < .001$), and with all dimensions of external locus of control at the $p < .001$ level (.23, .30, .26, and .25 for belief in chance, insignificance of struggle, fatalism, and belief in an unfair world, respectively). On the other hand, Contemplation was observed to be significantly associated with agreeableness ($r = .21, p < .01$), conscientiousness ($r = .20, p < .01$), locus of control ($r = .30, p < .001$), internal locus of control ($r = -.33, p < .001$), and fatalism ($r = .24, p < .001$). Finally, Action was found to be significantly associated with conscientiousness ($r = .25, p < .001$), locus of control ($r = .38, p < .001$), internal locus of control ($r = -.36, p < .001$), insignificance of struggle ($r = .22, p < .01$), and fatalism ($r = .31, p < .001$).

Lastly, Table 2.20 displays the Pearson Correlations between SOCS-C scales and other study variables. Accordingly, Precontemplation revealed significant zero-order correlations with emotion-focused coping ($r = .32, p < .001$), power oriented assumptions ($r = .28, p < .001$), injustice-oriented assumptions ($r = .23, p < .001$), externalizing and trivializing strategies (i.e., JU) ($r = .21, p < .01$), and self-victimization strategies ($r = .36, p < .001$). Both contemplation and action were found to be associated with positive affect ($r = .26, p < .001$ and $r = .34, p < .001$, respectively), problem-focused coping ($r = .21, p < .01$ and $r = .25, p < .001$, respectively), emotion-focused coping ($r = .21, p < .01$ for both), indirect coping ($r = .26, p < .001$ and $r = .25, p < .001$, respectively), and cold-heartedness ($r = -.23, p < .01$ for both). Besides, Contemplation was also found to be associated with cons of offending ($r = -.22, p < .01$). Finally, Maintenance was found to be significantly associated with positive affect ($r = .20, p < .01$), negative affect ($r = .29, p < .001$), emotion-focused coping ($r = .28, p < .001$), power oriented assumptions ($r = .20, p < .01$), externalizing and trivializing strategies ($r = .22, p < .01$), and Self-victimization strategies ($r = .25, p < .001$).

Table 2.18. Pearson's Correlations between SOCS-C scales and Demographic Variables

Variables	PRECON	CONT	ACTION	MAINT
Age	.09	-.05	-.05	-.16*
Education	-.10	-.14	-.15*	-.24***
Unemployment	.05	.01	-.03	.07
Age of beginning to work	.03	-.04	-.03	-.02
Military status	-.06	.04	.05	.04
Number of siblings	.01	.10	.14	.08
Order of birth	-.15	-.04	.04	.00
Alcohol usage problem	-.08	-.01	-.02	.13
Substance use	-.12	.05	.08	.15*
Separation from the family	-.03	.05	.08	.15*
Violence in the family	-.14	-.01	.02	.07
Living in the street	.01	.05	.09	.23***
Suicide	-.05	.12	.12	.17*
Self-harm	-.11	.13	.14	.25***
Criminal history	-.01	-.02	-.01	.06
Age of first offence	.10	-.04	-.02	-.14
Criminal history of family members	.07	-.04	.02	-.04
History of non-violent crime	.01	.11	.07	.17*
History of violent crime	.02	-.12	-.14*	-.04
History of sexual crime	-.02	-.06	-.11	-.05
History of illegal substance related crime	.04	-.01	.07	-.01

* $p < .05$, ** $p < .01$, *** $p < .001$.

Note 1. PRECON = Precontemplation, CONT = Contemplation, ACTION = Action, MAINT = Maintenance.

Note 2. The correlation coefficients that are equal to or larger than .20 were printed in bold.

Table 2.19. Pearson's Correlations between SOCS-C scales and Personality and Locus of Control Variables

Variables	PRECON	CONT	ACTION	MAINT
Extraversion	-.11	.02	.01	-.16*
Agreeableness	.06	.21**	.18**	.05
Conscientiousness	-.01	.20**	.25***	.07
Neuroticism	.10	-.01	-.11	.16*
Openness to Experience	.01	.11	.15*	.02
Negative Valence	.11	-.10	-.09	.13
Locus of Control	.41***	.30***	.38***	.42***
Internal Locus of Control	-.10	-.33***	-.36***	-.31***
Belief in Chance	.34***	.10	.12	.23***
Insignificance of Struggle	.42***	.14*	.22**	.30***
Fatalism	.31***	.24***	.31***	.26***
Belief in an Unfair World	.33***	.06	.16*	.25***

* $p < .05$, ** $p < .01$, *** $p < .001$.

Note 1. PRECON = Precontemplation, CONT = Contemplation, ACTION = Action, MAINT = Maintenance.

Note 2. The correlation coefficients that are equal to or larger than .20 were printed in bold.

Table 2.20. Pearson's Correlations between SOCS-C scales and Other Variables

Variables	PRECON	CONT	ACTION	MAINT
PAS	.09	.26***	.34***	.20**
NAS	.11	.10	.15*	.29***
LEIP	.12	.13	.18*	.16*
PROBLEM	.06	.21**	.25***	.04
EMOTION	.32***	.21**	.21**	.28***
INDIRECT	-.04	.26***	.25***	.19**
RSE	.04	.01	.01	-.17*
PROS	.15*	-.04	-.10	.12
CONS	.01	-.22**	.19**	.16*
EN+PO	.28***	.02	-.04	.20**
CR	.23***	-.03	-.02	.08
CH	-.09	-.23***	-.23***	-.18**
JU	.21**	-.02	-.02	.22**
PI	.36***	.08	.13	.25***

* $p < .05$, ** $p < .01$, *** $p < .001$.

Note 1. PRECON = Precontemplation, CONT = Contemplation, ACTION = Action, MAINT = Maintenance, PAS = Positive Affect, NAS = Negative Affect, LEIP = Level of Stress in Prisons, PROBLEM = Problem Focused Coping, EMOTION = Emotion Focused Coping, INDIRECT = Indirect Coping, RSE = Self-Esteem, PROS = Pros of offending, CONS = Cons of offending, EN+PO = Power-oriented assumptions, CR = Injustice-oriented assumptions, CH = Cold-Heartedness, JU = Externalizing & Trivializing Strategies, PI = Self-victimization strategies.

Note 2. The correlation coefficients that are equal to or larger than .20 were printed in bold.

2.1.4.3.3.2. Criterion Validity of SOCS-C

In order to examine the criterion validity of SOCS-C, initially, CTS-Assumptions scales (i.e., EN+PO, CR, CH), CTS-Defensive Strategies scales (i.e., JU, PI), decisional balance (i.e., pros and cons of offending), basic personality traits (i.e., extraversion, agreeableness, conscientiousness, neuroticism, openness to experience, and negative valence), locus of control and dimensions of locus of control (i.e., internal locus of control, belief in chance, insignificance of struggle, fatalism, and belief in an unfair world), ways of coping (i.e., problem focused coping, emotion focused coping, and indirect coping), self-esteem, level of stress in prisons, positive affect, and negative affect were categorized into 3 levels (i.e., low, medium, high; for descriptive information regarding the categories, see Table 2.13). Afterwards the differences between these groups were examined on the basis of their SOCS-C scores through separate MANOVAs, where subscales of SOCS-C (i.e., precontemplation, contemplation, action, and maintenance) served as dependent variables.

As can be followed in Table 2.21, MANOVA results yielded a significant difference in terms of power oriented assumptions, Multivariate $F(8, 388) = 3.23, p < .001, \eta^2 = .06, \text{Wilk's Lambda} = .88$. Accordingly, when the univariate analyses with Bonferroni correction ($p = .05/4 = .0125$) were examined, a significant result was obtained only for precontemplation, $F(2, 197) = 8.16, p < .013$, indicating that participants who reported high ($M = 23.92$) and medium levels of power oriented assumptions ($M = 22.92$), reported more precontemplation as compared to the participants who reported low level of power oriented assumptions ($M = 19.94$). A significant main-effect was also observed for the Injustice-Oriented Assumptions, Multivariate $F(8, 388) = 2.48, p < .01, \eta^2 = .05, \text{Wilk's Lambda} = .91$. However univariate analyses did not provide a significant result. A significant main-effect was also observed for cold-heartedness, Multivariate $F(8, 388) = 2.39, p < .05, \eta^2 = .05, \text{Wilk's Lambda} = .91$. Accordingly, the univariate analyses revealed a significant result for contemplation, $F(2, 197) = 5.77, p < .013$, indicating that participants who reported low level of cold-heartedness ($M = 31.84$), reported more contemplation as compared to the participants who reported medium ($M = 28.77$) and high levels of cold-heartedness ($M = 29.33$). Similarly, univariate analyses also yielded a

significant result for action, $F(2, 197) = 9.26, p < .013$, indicating that participants who reported low level of cold-heartedness ($M = 33.53$), reported more action as compared to the participants who reported medium ($M = 29.48$) and high levels of cold-heartedness ($M = 30.11$). Regarding CTS-Defensive Strategies, MANOVA results yielded a significant difference in terms of externalizing and trivializing strategies, Multivariate $F(8, 388) = 2.86, p < .01, \eta^2 = .06, \text{Wilk's Lambda} = .89$. However univariate analyses did not provide a significant result. A significant main-effect was also observed for Self-victimization strategies, Multivariate $F(8, 388) = 3.27, p < .001, \eta^2 = .06, \text{Wilk's Lambda} = .88$. Accordingly, when the univariate analyses were examined, a significant result was obtained only for precontemplation, $F(2, 197) = 11.53, p < .013$, indicating that participants who reported low ($M = 20.33$) and medium levels of Self-victimization strategies ($M = 22.45$), reported more precontemplation as compared to the participants who reported high level of Self-victimization strategies ($M = 24.93$). Regarding decisional balance, MANOVA results provided a significant main effect for pros of offending, Multivariate $F(8, 388) = 2.41, p < .05, \eta^2 = .05, \text{Wilk's Lambda} = .91$, however univariate analyses did not yield any significant result.

In terms of basic personality traits, MANOVA analyses provided a significant main effect of extraversion, Multivariate $F(8, 388) = 2.61, p < .01, \eta^2 = .01, \text{Wilk's Lambda} = .90$. Accordingly, a significant difference in terms of extraversion was obtained only for action, $F(2, 197) = 5.31, p < .013$, indicating that participants who reported low ($M = 32.19$) and high levels of extraversion ($M = 32.82$), reported more action as compared to the participants who reported medium level of extraversion ($M = 29.56$). Another main effect was obtained in terms of conscientiousness, Multivariate $F(8, 388) = 2.35, p < .05, \eta^2 = .05, \text{Wilk's Lambda} = .91$. Accordingly, a significant difference in terms of conscientiousness was again obtained only for action, $F(2, 197) = 5.54, p < .013$, indicating that the participants who reported low level of conscientiousness ($M = 29.29$) reported less action as compared to the participants who reported medium ($M = 32.10$) and high levels of conscientiousness ($M = 32.65$). MANOVA results also revealed significant main effects for agreeableness, Multivariate $F(8, 388) = 2.02, p < .05, \eta^2 = .04, \text{Wilk's Lambda} = .92$, and for negative valence Multivariate $F(8, 388) = 3.96, p < .001, \eta^2 = .08$,

Wilk's Lambda = .86. However, the univariate analyses did not provide any significant results for both.

In terms of locus of control, MANOVA analyses provided a significant main effect of external locus of control, Multivariate $F(8, 388) = 9.65$, $p < .001$, $\eta^2 = .17$, Wilk's Lambda = .70. Accordingly, a significant difference in terms of precontemplation was obtained, $F(2, 197) = 18.62$, $p < .013$, indicating that participants who reported low ($M = 21.08$) and medium levels of external locus of control ($M = 20.44$) indicated less precontemplation as compared to the participants who reported high level of external locus of control ($M = 25.58$). Another significant result was observed for contemplation, $F(2, 197) = 7.28$, $p < .013$, indicating that the participants who reported low level of external locus of control ($M = 28.42$) reported less contemplation as compared to the participants with high level of external locus of control ($M = 32.19$). However, participants with medium level of external locus of control ($M = 29.96$) did not differ from the participants with low or high levels of external locus of control, in terms of contemplation. Results further yielded a significant difference in terms of external locus of control, for action, $F(2, 197) = 15.21$, $p < .013$, indicating that participants who reported low ($M = 28.89$) and medium levels of external locus of control ($M = 30.65$) reported less action as compared to the participants with high level of external locus of control ($M = 34.42$). Finally, a significant result was obtained for maintenance, $F(2, 197) = 17.55$, $p < .013$, indicating that participants who reported low level of external locus of control ($M = 21.93$) indicated less maintenance as compared to the participants who reported medium level of external locus of control ($M = 25.34$), and these participants also indicated less maintenance as compared to the participants who reported high level of external locus of control ($M = 28.46$). MANOVA analyses also provided a significant main effect of internal locus of control, Multivariate $F(8, 388) = 3.65$, $p < .001$, $\eta^2 = .07$, Wilk's Lambda = .87. Accordingly, a significant difference in terms of contemplation was obtained, $F(2, 197) = 10.51$, $p < .001$, indicating that participants who reported low ($M = 31.92$) and medium levels of internal locus of control ($M = 31.03$) displayed more contemplation as compared to the participants with high level of internal locus of control ($M = 27.67$). Another significant result was observed for action, $F(2, 197) = 11.97$, $p < .013$, indicating that participants who reported low (M

= 33.73) and medium levels of internal locus of control ($\underline{M} = 31.56$) reported more action as compared to the participants with high level of internal locus of control ($\underline{M} = 28.69$). Finally, a significant univariate result was obtained for maintenance, $\underline{F}(2, 197) = 7.85, p < .001$, indicating that the participants who reported low level of internal locus of control ($\underline{M} = 27.52$) reported more maintenance as compared to the participants who reported high level of internal locus of control ($\underline{M} = 22.99$).

However, participants with medium level of internal locus of control ($\underline{M} = 25.26$) did not differ from the participants with low or high levels of internal locus of control, in terms of maintenance. MANOVA analyses further provided a significant main effect of belief in chance, Multivariate $\underline{F}(8, 388) = 2.98, p < .01, \eta^2 = .06$, Wilk's Lambda = .89. Accordingly, a significant difference in terms of precontemplation was obtained, $\underline{F}(2, 197) = 9.45, p < .013$, indicating that participants who reported low ($\underline{M} = 20.63$) and medium levels of belief in chance ($\underline{M} = 21.96$) indicated less precontemplation as compared to the participants who reported high level of belief in chance ($\underline{M} = 24.80$). Similarly, in terms of insignificance of struggle, Multivariate $\underline{F}(8, 388) = 7.10, p < .001, \eta^2 = .13$, Wilk's Lambda = .76, a significant univariate result was obtained again for precontemplation, $\underline{F}(2, 197) = 19.24, p < .013$.

Accordingly, participants who reported low level of insignificance of struggle ($\underline{M} = 19.43$) reported less precontemplation as compared to the participants with medium level of insignificance of struggle ($\underline{M} = 22.62$), and these participants also reported less precontemplation than the participants who reported high level of insignificance of struggle ($\underline{M} = 25.19$). Another univariate result was obtained for action, $\underline{F}(2, 197) = 5.83, p < .013$, indicating that the participants who reported low level of insignificance of struggle ($\underline{M} = 29.58$) reported less action as compared to the participants with high level of insignificance of struggle ($\underline{M} = 33.27$). However, participants with medium level of insignificance of struggle ($\underline{M} = 31.23$) did not differ from the participants with low or high levels of insignificance of struggle, in terms of action. Finally, a significant result was observed for maintenance, $\underline{F}(2, 197) = 7.96, p < .013$, indicating that participants who reported low level of insignificance of struggle ($\underline{M} = 22.81$) reported less maintenance as compared to the participants with medium ($\underline{M} = 25.61$) and high levels of insignificance of struggle ($\underline{M} = 27.42$).

In terms of fatalism, Multivariate $\underline{F}(8, 388) = 4.88, p < .001, \eta^2 = .09$, Wilk's

Lambda = .83, a significant univariate result was obtained for precontemplation, $F(2, 197) = 9.33, p < .013$. Accordingly, participants who reported low level of fatalism ($M = 20.53$), reported less precontemplation as compared to the participants who reported high level of fatalism ($M = 24.48$). However, participants with medium level of fatalism ($M = 22.42$) did not differ from the participants with low or high levels of fatalism, in terms of precontemplation. In addition, a significant result was obtained for contemplation, $F(2, 197) = 5.84, p < .013$, indicating that participants who reported low level of fatalism ($M = 28.44$), reported less contemplation as compared to the participants who reported high level of fatalism ($M = 31.79$). However, participants with medium level of fatalism ($M = 30.50$) did not differ from the participants with low or high levels of fatalism, in terms of contemplation. Furthermore, a significant result was observed for action, $F(2, 197) = 11.33, p < .013$, indicating that participants who reported low ($M = 28.96$) and medium levels of fatalism ($M = 31.32$) displayed less action as compared to the participants with high level of fatalism ($M = 33.87$). Finally, a significant result was also obtained for maintenance, $F(2, 197) = 6.38, p < .013$. Accordingly, participants who reported low level of fatalism ($M = 23.28$) reported less maintenance than the participants who reported high level of fatalism ($M = 27.38$). However, participants with medium level of fatalism ($M = 25.26$) did not differ from the participants with low or high levels of fatalism, in terms of maintenance. In addition, in terms of belief in an unfair world, Multivariate $F(8, 388) = 4.95, p < .001, \eta^2 = .09$, Wilk's Lambda = .82, a significant univariate result was obtained for precontemplation, $F(2, 197) = 9.30, p < .013$. Accordingly, participants who reported low level of belief in an unfair world ($M = 20.53$), reported less precontemplation as compared to the participants who reported high level of belief in an unfair world ($M = 24.61$). However, participants with medium level of belief in an unfair world ($M = 22.57$) did not differ from the participants with low or high levels of belief in an unfair world, in terms of precontemplation. Besides, a significant result was obtained for maintenance, $F(2, 197) = 7.56, p < .013$, indicating that participants who reported low ($M = 23.65$) and medium levels of belief in an unfair world ($M = 24.66$) reported less maintenance as compared to the participants with high level of belief in an unfair world ($M = 27.98$).

In terms of ways of coping, MANOVA analyses provided a significant main effect of emotion-focused coping, Multivariate $F(8, 384) = 4.09, p < .001, \eta^2 = .08$, Wilk's Lambda = .85. Accordingly, a significant difference in terms of precontemplation was obtained, $F(2, 195) = 11.36, p < .013$, indicating that participants who reported high ($M = 24.09$) and medium levels of emotion-focused coping ($M = 23.26$) also reported more precontemplation as compared to the participants who reported low level of emotion-focused coping ($M = 19.74$). Furthermore, a significant univariate result was observed for maintenance, $F(2, 195) = 5.10, p < .013$, indicating that participants high level of emotion-focused coping ($M = 27.32$), reported more maintenance as compared to the participants who reported low level of emotion-focused coping ($M = 23.56$). However, participants with medium level of emotion-focused coping ($M = 25.22$) did not differ from the participants with low or high levels of emotion-focused coping, in terms of maintenance. Finally, in terms of indirect coping, Multivariate $F(8, 388) = 2.63, p < .01, \eta^2 = .05$, Wilk's Lambda = .90, a significant univariate result was obtained for contemplation, $F(2, 197) = 7.95, p < .013$, indicating that participants who reported low level of indirect coping ($M = 28.76$), reported less contemplation as compared to the participants who reported high ($M = 32.64$) and medium levels of indirect coping ($M = 29.51$). Besides, a significant univariate result was yielded for action, $F(2, 197) = 7.56, p < .013$. Accordingly, participants who reported low level of indirect coping ($M = 29.81$), reported less action as compared to the participants who reported high ($M = 33.88$) and medium levels of indirect coping ($M = 30.63$). Finally, a significant result was observed for maintenance, $F(2, 197) = 6.05, p < .013$, indicating that participants who reported low level of indirect coping ($M = 24.33$), reported less maintenance as compared to the participants who reported high ($M = 27.80$) and medium levels of indirect coping ($M = 24.09$).

MANOVA results also revealed a significant main effect self-esteem, Multivariate $F(8, 388) = 2.40, p < .05, \eta^2 = .05$, Wilk's Lambda = .91. However, the univariate analyses did not provide any significant results.

Lastly, in terms of affective variables, MANOVA results provided a significant main effect for positive affect, Multivariate $F(8, 388) = 3.44, p < .001, \eta^2 = .07$, Wilk's Lambda = .87. Accordingly, univariate analyses provided a significant

result for contemplation, $F(2, 197) = 8.66, p < .013$, indicating that participants who reported low ($M = 28.41$) and medium levels of positive affect ($M = 29.78$), reported less contemplation as compared to the participants who reported high level of positive affect ($M = 32.50$). Moreover, a significant result was obtained for action, $F(2, 197) = 12.54, p < .013$, indicating that participants who reported low ($M = 29.06$) and medium levels of positive affect ($M = 30.82$) displayed less action as compared to the participants with high level of positive affect ($M = 34.23$). Besides, a significant result was obtained for maintenance, $F(2, 197) = 5.57, p < .013$, indicating that participants who reported low level of positive affect ($M = 23.58$) reported less maintenance as compared to the participants with high level of positive affect ($M = 27.44$). However, participants with medium level of positive affect ($M = 24.86$) did not differ from the participants with low or high levels of positive affect, in terms of maintenance. Finally, in terms of negative affect, Multivariate $F(8, 388) = 3.91, p < .001, \eta^2 = .08, \text{Wilk's Lambda} = .86$, univariate analyses provided a significant result only for contemplation, $F(2, 197) = 12.88, p < .013$, indicating that the participants who reported low level of negative affect ($M = 22.41$) reported less maintenance as compared to the participants with medium level of negative affect ($M = 25.47$), and these participants also reported less maintenance than the participants with high level of negative affect ($M = 28.21$).

Table 2.21. Criterion Validity Information Regarding Stages of Change Scale for Criminals

IV	Groups	PRECON	CONT	ACTION	MAINT	Multivar. F	Univar. F	η^2	Wilk's Lambda
EN+PO	Low	19.94a	30.08	31.26	24.02	3.23***	8.16 for precon.	.06	.88
	Medium	22.92b	30.59	32.02	25.37				
	High	23.92b	29.85	30.56	26.28				
CR	Low	21.08	29.90	31.34	24.89	2.48**	-	.05	.91
	Medium	22.50	31.19	31.77	24.76				
	High	23.65	29.51	30.91	26.22				
CH	Low	22.62	31.84a	33.53a	26.94	2.39*	5.77 for cont, 9.26 for action	.05	.91
	Medium	22.78	28.77b	29.48b	23.89				
	High	21.72	29.33b	30.11b	24.31				
JU	Low	21.63	30.69	31.71	24.09	2.86**	-	.06	.89
	Medium	21.96	29.13	30.61	24.62				
	High	23.68	30.53	31.53	27.25				
PI	Low	20.33a	30.22	30.94	24.26	3.27***	11.53 for precon.	.06	.88
	Medium	22.45a	29.99	31.17	25.35				
	High	24.93b	30.45	32.06	26.48				
PROS	Low	21.64	30.81	32.11	24.74	2.41*	-	.05	.91
	Medium	22.49	28.88	30.80	24.65				
	High	23.32	30.34	30.73	26.40				

Table 2.21 Cont'd

IV	Groups	PRECON	CONT	ACTION	MAINT	Multivar. F	Univar. F	η^2	Wilk's Lambda
CONS	Low	22.25	29.33	30.72	24.75	1.30	-	.03	.95
	Medium	22.88	29.46	30.51	24.27				
	High	22.04	31.90	32.88	26.88				
E	Low	23.17	30.65	32.19a	26.84	2.61**	5.31 for action	.01	.90
	Medium	21.75	28.87	29.56b	24.15				
	High	22.34	31.56	32.82a	24.88				
A	Low	22.45	29.06	30.34	25.16	2.02*	-	.04	.92
	Medium	21.84	30.67	30.90	24.83				
	High	22.81	31.44	33.16	25.83				
C	Low	22.71	28.74	29.29a	25.05	2.35*	5.54 for action	.05	.91
	Medium	21.90	30.68	32.10b	25.46				
	High	22.62	31.22	32.65b	25.31				
N	Low	21.50	30.79	32.32	24.70	3.07**	-	.06	.89
	Medium	22.05	29.14	30.74	24.18				
	High	23.70	30.71	30.96	27.02				
O	Low	22.81	29.34	30.19	25.20	1.41	-	.03	.94
	Medium	21.35	30.55	31.49	24.85				
	High	23.14	30.83	32.53	25.86				

Table 2.21 Cont'd

IV	Groups	PRECON	CONT	ACTION	MAINT	Multivar. F	Univar. F	η^2	Wilk's Lambda
NV						3.96***	-	.08	.86
	Low	21.35	30.23	31.11	23.65				
	Medium	23.22	31.24	32.80	26.04				
	High	23	29.18	30.24	26.72				
LOC						9.65***	18.62 for precon, 7.28 for cont, 15.21 for action & 15.55 for maint	.17	.70
	Low	21.08a	28.42a	28.89a	21.93a				
	Medium	20.44a	29.96ab	30.65a	25.34b				
	High	25.58b	32.19b	34.42b	28.46c				
INTLOC						3.65***	10.51 for cont, 11.97 for action, 7.85 for maint	.07	.87
	Low	22.82	31.92a	33.73a	27.52a				
	Medium	22.63	31.03a	31.56a	25.26ab				
	High	21.75	27.67b	28.69b	22.99b				
LOC-C						2.98**	9.45 for precon	.06	.89
	Low	20.63a	29.16	30.42	23.54				
	Medium	21.96a	30.56	31.39	25.50				
	High	24.80b	30.95	32.30	26.89				

Table 2.21 Cont'd

IV	Groups	PRECON	CONT	ACTION	MAINT	Multivar. F	Univar. F	η^2	Wilk's Lambda
LOC-S	Low	19.43a	29.47	29.58a	22.81a	7.10***	19.24 for precon, 5.83 for action, & 7.96 for maint	.13	.76
	Medium	22.62b	29.85	31.23ab	25.61b				
	High	25.19c	31.35	33.27b	27.42b				
LOC-F	Low	20.39a	28.44a	28.96a	23.28a	4.88***	9.33 for precon, 5.84 for cont, 11.33 for action, & 6.38 for maint	.09	.83
	Medium	22.42ab	30.50ab	31.32a	25.26ab				
	High	24.48b	31.79b	33.87b	27.38b				
LOC-U	Low	20.53a	30.33	30.83	23.65a	4.95***	9.30 for precon, 7.56 for maint	.09	.82
	Medium	22.57ab	28.97	30.18	24.66a				
	High	24.61b	31.29	33.18	27.98b				
PROB.	Low	22.00	28.99	29.73	24.53	1.65	-	.03	.94
	Medium	23.04	30.15	31.32	25.87				
	High	22.30	31.37	32.87	25.43				

Table 2.21. Cont'd

IV	Groups	PRECON	CONT	ACTION	MAINT	Multivar. F	Univar. F	η^2	Wilk's Lambda
EMOT.	Low	19.74a	28.98	30.22	23.56a	4.09***	11.36 for precon, 5.10 for maint	.08	.85
	Medium	23.26b	30.45	30.94	25.22ab				
	High	24.09b	31.30	33.10	27.32b				
INDRC	Low	22.06	28.76a	29.81a	24.33a	2.63**	7.95 for cont, 7.56 for action, 6.05 for maint	.05	.90
	Medium	22.91	29.51a	30.63a	24.09a				
	High	22.10	32.64b	33.88b	27.80b				
RSE	Low	22.40	30.34	31.62	26.83	2.40*	-	.05	.91
	Medium	21.49	29.77	30.01	23.51				
	High	23.15	30.42	32.11	24.82				
LEIP	Low	21.12	29.64	30.50	24.19	1.56	-	.03	.94
	Medium	23.07	29.36	30.46	24.88				
	High	22.98	31.60	33.03	26.71				
PAS	Low	21.21	28.41a	29.06a	23.58a	3.44***	8.66 for cont, 12.54 for action, & 5.57 for maint	.07	.87
	Medium	23.17	29.78a	30.82a	24.86ab				
	High	22.78	32.50b	34.23b	27.44b				

Table 2.21. Cont'd

IV	Groups	PRECON	CONT	ACTION	MAINT	Multivar. F	Univar. F	η^2	Wilk's Lambda
NAS						3.91***	12.88 for maint	.08	.86
	Low	21.82	29.31	30.02	22.41a				
	Medium	21.91	29.31	31.14	25.47b				
	High	23.59	30.14	33.04	28.21c				

$p < .05$, ** $p < .01$, *** $p < .001$

Note. PRECON = Precontemplation, CONT = Contemplation, ACTION = Action, MAINT = Maintenance, EN+PO = Power-oriented assumptions, CR = Injustice-oriented assumptions, CH = Cold-Heartedness, JU = Externalizing & Trivializing Strategies, PI = Self-victimization strategies, PROS = Pros of offending, CONS = Cons of offending, E = Extraversion, A = Agreeableness, C = Conscientiousness, N = Neuroticism, O = Openness to Experience, NV = Negative Valence, LOC = Locus of Control, INT LOC = Internal Locus of Control, LOC-C = Belief in Chance, LOC-S = Insignificance of Struggle, LOC-F = Fatalism, LOC-U = Belief in an Unfair World, PROB = Problem Focused Coping, EMOT= Emotion Focused Coping, INDRC = Indirect Coping, RSE = Self-Esteem, LEIP = Level of Stress in Prisons, PAS = Positive Affect, NAS = Negative Affect.

Note 2. The mean scores that do not share the same subscript on the same column for each scale are significantly different from each other.

Note 3. For all, Multivariate $df = 8, 388$ and Univariate $df = 2, 197$

2.1.4.4. Psychometric Properties of DBS-C

2.1.4.4.1. Factor Structure of DBS-C

A varimax rotated principle components analysis with 2-factor solution was conducted with the items of DBS-C. As can be seen in Table 2.22, the eigenvalues of the factors (Pros of offending and Cons of offending) were 4.87, and 3.74 and they explained 20.29, and 15.58 % of the total variance, respectively. Considering item loadings; there were 12 items representing Pros of offending with item loadings ranging from .18 to .82 and 12 items representing Cons of offending with item loadings ranging from .35 to .73. All items received loadings in the expected factors.

Table 2.22. Varimax Rotated Factor Loadings of the DBS-C Items

ITEM #	I	II
<u>I.Pros of Offending</u>		
Item # 1	.82	-.06
Item # 2	.74	-.26
Item # 20	.72	-.04
Item # 21	.72	-.07
Item # 19	.70	-.05
Item # 11	.64	.03
Item # 4	.62	-.02
Item # 5	.62	-.17
Item # 13	.51	.03
Item # 24	.43	.28
Item # 10	.34	.11
Item # 7	.18	-.16
<u>II.Cons of Offending</u>		
Item # 17	-.25	.73
Item # 12	-.07	.62
Item # 18	.17	.62
Item # 9	-.34	.60
Item # 8	-.06	.57
Item # 6	.06	.54
Item # 23	.12	.54
Item # 15	-.24	.52
Item # 3	-.10	.49
Item # 16	.22	.44
Item # 14	.17	.37
Item # 22	-.08	.35
Eigenvalue	4.87	20.29
Explained Variance (%)	3.74	15.58

2.1.4.4.2. Reliability of DBS-C

The internal consistency coefficients (i.e., Cronbach alpha coefficients), the ranges for the item-total correlations, and the test-retest reliability values for the subscales of DBS-C are provided in Table 2.23.A, 2.23.B, and 2.23.C, respectively. As can be followed from Table 2.23.A, the subscales generally revealed good internal reliability coefficients, ranging between .76 and .80. The item-total correlation coefficients for the DBS-C subscales ranged between .19 and .69. Finally, the test-retest reliability coefficients were found to be ranging between .38 and .62.

Table 2.23. Reliability Information Regarding DBS-C

	Pros	Cons
A. Internal Consistency Coefficients	.80	.76
B. Item-Total Correlation Range	.19-.69	.25-.60
C. Test-Retest Reliability	.62**	.38*

Note: ** $p < .001$, * $p < .01$

2.1.4.4.3. Validity of DBS-C

2.1.4.4.3.1. Concurrent Validity of DBS-C

In order to investigate the concurrent validity of DBS-C, the DBS-C scales (i.e., Pros and Cons) were subjected to correlational analysis with demographic, personality, and other study variables. For the concurrent validity information, zero-orders were taken into account, where the Pearson Correlation Coefficient is equal to or exceeds .20.

Table 2.24 presents the Pearson Correlations with demographic variables. Accordingly, only Pros of offending revealed significant zero-order correlations with alcohol usage problems ($r = .21$, $p < .01$), substance use ($r = .24$, $p < .001$), experience of living in streets ($r = .26$, $p < .001$), non-violent crime ($r = .23$, $p < .001$), and violent crime ($r = .20$, $p < .01$).

Table 2.25 displays the Pearson Correlations between DBS-C scales and personality and locus of control variables. Accordingly, Pros of offending revealed significant zero-order correlations with extraversion ($r = -.23$, $p < .001$), agreeableness ($r = -.26$, $p < .001$), conscientiousness ($r = -.23$, $p < .001$), neuroticism ($r = .27$, $p < .001$), and negative valence ($r = .36$, $p < .001$). Moreover, significant associations were obtained between Pros of offending and insignificance of struggle

($r = .29, p < .001$) as well as belief in an unfair world ($r = .26, p < .001$). On the other hand, Cons of offending revealed significant zero-order correlations with conscientiousness ($r = .20, p < .01$), negative valence ($r = -.22, p < .01$), and internal locus of control ($r = -.35, p < .01$).

Lastly, Table 2.26 displays the Pearson Correlations between DBS-C scales and other study variables. Accordingly, Pros of offending revealed significant zero-order correlations with negative affect ($r = .25, p < .001$), problem-focused coping ($r = -.26, p < .001$), power oriented assumptions ($r = .52, p < .001$), injustice-oriented assumptions ($r = .21, p < .01$), externalizing and trivializing strategies ($r = .41, p < .001$), and self-victimization strategies ($r = .21, p < .01$). On the other hand, Cons of offending revealed significant zero-order correlations with contemplation ($r = -.22, p < .01$) and cold-heartedness ($r = -.21, p < .001$).

Table 2.24. Pearson's Correlations between DBS-C scales and Demographic Variables

VARIABLES	PROS	CONS
Age	-.11	-.10
Education	-.13	.08
Unemployment	.03	.02
Age of beginning to work	-.06	-.05
Military status	-.02	-.12
Number of siblings	-.01	.06
Order of birth	.04	.06
Alcohol usage problem	.21**	-.15*
Substance use	.24***	-.01
Separation from the family	.17*	.05
Violence in the family	.18*	-.08
Living in the street	.26***	-.05
Suicide	.03	.03
Self-harm	.11	.01
Criminal history	.06	-.06
Age of first offence	-.16*	.11
Criminal history of family members	.04	-.09
History of non-violent crime	.23***	-.02
History of violent crime	.20**	-.05
History of sexual crime	-.04	-.04
History of illegal substance related crime	-.01	-.01

* $p < .05$, ** $p < .01$, *** $p < .001$.

Note 1. PROS = Pros of offending, CONS = Cons of offending

Note 2. The correlation coefficients that are equal to or larger than .20 were printed in bold.

Table 2.25. Pearson's Correlations between DBS-C scales and Personality and Locus of Control Variables

VARIABLES	PROS	CONS
E	-.23***	.01
A	-.26***	.18**
C	-.23***	.20**
N	.27***	.08
O	-.09	.07
NV	.36***	-.22**
LOC	.16*	.18**
INTLOC	.13	-.35***
LOC-C	.19**	-.04
LOC-S	.29***	.01
LOC-F	.06	.12
LOC-U	.26***	-.07

* $p < .05$, ** $p < .01$, *** $p < .001$.

Note. PROS = Pros of offending, CONS = Cons of offending, E = Extraversion, A = Agreeableness, C = Conscientiousness, N = Neuroticism, O = Openness to Experience, NV = Negative Valence, LOC = Locus of Control, INTLOC = Internal locus of control, LOC-C = Belief in chance, LOC-S = Insignificance of struggle, LOC-F = Fatalism, LOC-U = Belief in an unfair world.

Table 2.26. Pearson's Correlations between DBS-C scales and Other Study Variables

VARIABLES	PROS	CONS
PAS	.01	.15*
NAS	.25***	.13
LEIP	.04	.17*
PROBLEM	-.26***	.17*
EMOTION	.15*	-.04
INDIRECT	-.16*	.08
RSE	-.19**	.09
PRECON	.15*	.01
CONT.	-.04	-.22**
ACTION	-.10	.19**
MAINT.	.12	.16*
EN+PO	.52***	-.08
CR	.21**	.01
CH	.17*	-.21***
JU	.41***	-.06
PI	.21**	.04

* $p < .05$, ** $p < .01$, *** $p < .001$.

Note 1. PROS = Pros of offending, CONS = Cons of offending, PAS = Positive Affect, NAS = Negative Affect, LEIP = Level of Stress in Prisons, PROBLEM = Problem Focused Coping, EMOTION = Emotion Focused Coping, INDIRECT = Indirect Coping, RSE = Self-Esteem, PRECON = Precontemplation, CONT = Contemplation, ACTION = Action, MAINT = Maintenance, EN+PO = Power oriented assumptions, CR = Injustice-Oriented Assumptions, CH = Cold-Heartedness, JU = Externalizing & Trivializing Strategies, PI = Self-victimization strategies.

Note 2. The correlation coefficients that are equal to or larger than .20 were printed in bold.

2.1.4.4.3.2. Criterion Validity of DBS-C

In order to examine the criterion validity of DBS-C, initially, CTS-Assumptions scales (i.e., EN+PO, CR, CH), CTS-Defensive Strategies scales (i.e., JU, PI), stages of change (i.e., precontemplation, contemplation, action, and maintenance), basic personality traits (i.e., extraversion, agreeableness, conscientiousness, neuroticism, openness to experience, and negative valence), locus of control and dimensions of locus of control (i.e., internal locus of control, belief in chance, insignificance of struggle, fatalism, and belief in an unfair world), ways of coping (i.e., problem focused coping, emotion focused coping, and indirect coping), self-esteem, level of stress in prisons, positive affect, and negative affect were categorized into 3 levels (i.e., low, medium, high; for descriptive information

regarding the categories, see Table 2.13). Afterwards the differences between these groups were examined on the basis of their DBS-C scores through separate MANOVAs subscales of DBS-C (i.e., pros and cons of offending) served as dependent variables.

As can be followed in Table 2.27, MANOVA results yielded a significant main effect for power oriented assumptions, Multivariate $F(4, 392) = 14.05$, $p < .001$, $\eta^2 = .13$, Wilk's Lambda = .77. Accordingly, when the univariate analyses with Bonferroni correction ($p = .05/2 = .025$) were examined, a significant result was obtained for pros of offending, $F(2, 197) = 27.51$, $p < .025$, indicating that participants who reported low ($M = 16.39$) and medium levels of power oriented assumptions ($M = 17.61$), reported less pros of offending as compared to the participants who reported high level of power oriented assumptions ($M = 24.43$). Furthermore, a significant main effect was obtained for the injustice-oriented assumptions, Multivariate $F(4, 392) = 2.60$, $p < .05$, $\eta^2 = .03$, Wilk's Lambda = .95. Accordingly, a significant result was obtained for pros of offending, $F(2, 197) = 4.55$, $p < .025$, indicating that participants who reported high ($M = 20.53$) and medium levels of the injustice-oriented assumptions ($M = 20.50$) also reported more pros of offending as compared to the participants who reported low level of the injustice-oriented assumptions ($M = 17.24$). A significant main effect was also observed for cold-heartedness, Multivariate $F(4, 392) = 2.74$, $p < .05$, $\eta^2 = .03$, Wilk's Lambda = .95, however the univariate analyses did not reveal any significant result. Regarding CTS-Defensive strategies, MANOVA results yielded a significant main effect only for externalizing and trivializing strategies, Multivariate $F(4, 392) = 6.83$, $p < .001$, $\eta^2 = .07$, Wilk's Lambda = .87. Accordingly, a significant result was obtained for pros of offending, $F(2, 197) = 13.22$, $p < .025$, indicating that participants who reported high level of externalizing and trivializing strategies ($M = 22.92$), reported more pros of offending as compared to the participants who reported medium ($M = 18.57$) and low levels of externalizing and trivializing strategies ($M = 17.08$).

In terms of stages of change, a significant main effect was obtained for precontemplation, Multivariate $F(4, 392) = 2.47$, $p < .05$, $\eta^2 = .03$, Wilk's Lambda = .95, however the univariate analyses did not reveal any significant result. On the

other hand, for the main effect of action, Multivariate $F(4, 392) = 2.55, p < .05, \eta^2 = .03$, Wilk's Lambda = .95, a significant result was obtained for cons of offending, $F(2, 197) = 4.76, p < .025$. Accordingly, participants who reported low ($M = 44.09$) and medium levels of action ($M = 44.15$), reported less cons of offending as compared to the participants who reported high level of action ($M = 48.21$). Similarly, for the main effect of maintenance, Multivariate $F(4, 392) = 3.24, p < .01, \eta^2 = .03$, Wilk's Lambda = .94, a significant result was obtained for cons of offending, $F(2, 197) = 3.93, p < .025$. Accordingly, participants who reported low ($M = 44.21$) and medium levels of maintenance ($M = 43.74$), reported less cons of offending as compared to the participants who reported high level of maintenance ($M = 47.50$).

In terms of basic personality traits, MANOVA results yielded a significant main effect for extraversion, Multivariate $F(4, 392) = 3.29, p < .01, \eta^2 = .03$, Wilk's Lambda = .94. Univariate results further revealed a significant result for pros of offending, $F(2, 197) = 6.39, p < .025$, indicating that participants who reported low level of extraversion ($M = 21.62$), reported more pros of offending as compared to the participants who reported high level of extraversion ($M = 16.99$). However, participants with medium level of extraversion ($M = 19.14$) did not differ from the participants with low or high levels of extraversion, in terms of pros of offending. MANOVA results further yielded a significant main effect for agreeableness, Multivariate $F(4, 392) = 5.45, p < .001, \eta^2 = .05$, Wilk's Lambda = .90. According to the univariate results, a significant difference was obtained for pros of offending, $F(2, 197) = 9.34, p < .025$, indicating that participants who reported low level of agreeableness ($M = 21.90$), reported more pros of offending as compared to the participants who reported medium ($M = 17.26$) and high levels of agreeableness ($M = 17.79$). In addition, in terms of conscientiousness, Multivariate $F(4, 392) = 7.29, p < .001, \eta^2 = .07$, Wilk's Lambda = .87, a significant result was observed again for pros of offending, $F(2, 197) = 11.82, p < .025$. Accordingly, participants who reported low level of conscientiousness ($M = 22.49$), reported more pros of offending as compared to the participants who reported medium ($M = 16.66$) and high levels of conscientiousness ($M = 19.26$). Besides, in terms of neuroticism, Multivariate $F(4, 392) = 4.17, p < .01, \eta^2 = .04$, Wilk's Lambda = .92, a significant result was observed

again for pros of offending, $F(2, 197) = 7.94, p < .025$. Accordingly, participants who reported low ($M = 18.09$) and medium levels of neuroticism ($M = 17.96$), reported less pros of offending as compared to the participants who reported high level of neuroticism ($M = 22.31$). Likewise, in terms of openness to experience, Multivariate $F(4, 392) = 3.09, p < .05, \eta^2 = .03$, Wilk's Lambda = .94, a significant result was observed again for pros of offending, $F(2, 197) = 4.40, p < .025$. Accordingly, participants who reported low level of openness to experience ($M = 20.96$), reported more pros of offending as compared to the participants who reported medium level of openness to experience ($M = 17.42$). However, participants with high level of openness to experience ($M = 19.94$) did not differ from the participants with low or medium levels of openness to experience, in terms of pros of offending. Moreover, in terms of negative valence, Multivariate $F(4, 392) = 10.34, p < .001, \eta^2 = .10$, Wilk's Lambda = .82, a significant result was observed again for pros of offending, $F(2, 197) = 16.85, p < .025$. Accordingly, participants who reported low level of negative valence ($M = 16.26$), reported less pros of offending as compared to the participants who reported medium ($M = 20.18$) and high levels of negative valence ($M = 22.92$). A significant result was also obtained for cons of offending, $F(2, 197) = 4.43, p < .25$. Accordingly, participants who reported low level of negative valence ($M = 74.03$) indicated more cons of offending as compared to the participants who reported high level of negative valence ($M = 42.70$). However, participants with medium level of negative valence ($M = 45.79$) did not differ from the participants with low or high levels of negative valence, in terms of cons of offending.

In terms of locus of control, MANOVA results yielded a significant main effect for external locus of control, Multivariate $F(4, 392) = 2.98, p < .05, \eta^2 = .03$, Wilk's Lambda = .94. Univariate results further revealed a significant result for cons of offending, $F(2, 197) = 3.84, p < .025$, indicating that participants who reported low level of external locus of control ($M = 43.01$) reported less cons of offending as compared to the participants who reported medium level of external locus of control ($M = 47.02$). However, participants with high level of external locus of control ($M = 46.04$) did not differ from the participants with low or medium levels of external locus of control, in terms of cons of offending. MANOVA results further revealed a

significant main effect for internal locus of control, Multivariate $F(4, 392) = 5.75$, $p < .001$, $\eta^2 = .06$, Wilk's Lambda = .89. According to the univariate analyses, a significant result was obtained for cons of offending, $F(2, 197) = 9.76$, $p < .025$, indicating that participants who reported low ($M = 47.89$) and medium levels of internal locus of control ($M = 46.44$), reported more cons of offending as compared to the participants who reported high level of internal locus of control ($M = 41.74$). Another main effect was observed for belief in chance, Multivariate $F(4, 392) = 2.70$, $p < .05$, $\eta^2 = .03$, Wilk's Lambda = .95, and univariate results revealed a significant difference for pros of offending, $F(2, 197) = 5.30$, $p < .25$. Accordingly, participants who reported low level of belief in chance ($M = 17.61$) indicated less pros of offending as compared to the participants who reported high level of belief in chance ($M = 21.71$). However, participants with medium level of belief in chance ($M = 19.11$) did not differ from the participants with low or high levels of belief in chance, in terms of pros of offending. Besides, a significant main effect was obtained for insignificance of struggle, Multivariate $F(4, 392) = 4.43$, $p < .01$, $\eta^2 = .04$, Wilk's Lambda = .92, and a significant result was observed again for pros of offending, $F(2, 197) = 7.92$, $p < .025$. Accordingly, participants who reported low level of insignificance of struggle ($M = 16.71$) reported less pros of offending as compared to the participants with medium ($M = 19.98$) and high levels of insignificance of struggle ($M = 21.56$). Finally, in terms of belief in an unfair world, Multivariate $F(4, 392) = 3.31$, $p < .01$, $\eta^2 = .03$, Wilk's Lambda = .94, a significant result was observed again for pros of offending, $F(2, 197) = 5.23$, $p < .025$. Accordingly, participants who reported low level of belief in an unfair world ($M = 17.38$), reported less pros of offending as compared to the participants who reported medium ($M = 20.35$) and high levels of belief in an unfair world ($M = 21.08$).

In terms of problem-focused coping, Multivariate $F(4, 390) = 4.88$, $p < .001$, $\eta^2 = .05$, Wilk's Lambda = .91, a significant result was observed for pros of offending, $F(2, 196) = 6.02$, $p < .025$. Accordingly, participants who reported high level of problem-focused coping ($M = 21.92$) also reported more pros of offending as compared to the participants who reported medium ($M = 18.66$) and low levels of problem-focused coping ($M = 17.79$). Similarly, a significant result was observed for cons of offending, $F(2, 196) = 4.01$, $p < .025$. Accordingly, participants who

reported high level of problem-focused coping ($\underline{M} = 47.82$) also reported more cons of offending as compared to the participants who reported medium ($\underline{M} = 44.29$) and low levels of problem-focused coping ($\underline{M} = 43.98$). Furthermore, in terms of self-esteem, Multivariate $\underline{F} (4, 392) = 3.06, p < .05, \eta^2 = .03, \text{Wilk's Lambda} = .94$, a significant result was observed for pros of offending, $\underline{F} (2, 197) = 5.81, p < .025$. Accordingly, participants who reported low level of self-esteem ($\underline{M} = 21.48$), reported more pros of offending as compared to the participants who reported medium ($\underline{M} = 17.56$) and high levels of self-esteem ($\underline{M} = 18.38$). Lastly, a significant main effect was observed for negative affect, Multivariate $\underline{F} (4, 392) = 4.33, p < .01, \eta^2 = .04, \text{Wilk's Lambda} = .92$. Regarding univariate analyses, a significant result was obtained for pros of offending, $\underline{F} (2, 197) = 6.71, p < .025$, indicating that participants who reported low ($\underline{M} = 17.49$) and medium levels of negative affect ($\underline{M} = 18.98$) also reported less pros of offending as compared to the participants that reported high level of negative affect ($\underline{M} = 22.03$).

Table 2.27. Criterion Validity Information Regarding Decisional Balance Scale for Criminals

IV	Groups	PROS	CONS	Multivariate F	Multivariate df	Univariate F	Univariate df	η^2	Wilk's Lambda
EN+PO				14.05***	4, 392	27.51 for pros	2, 197	.13	.77
	Low	16.39a	46.14						
	Medium	17.61a	46.35						
	High	24.43b	43.41						
CR				2.60*	4, 392	4.55 for pros	2, 197	.03	.95
	Low	17.24a	45.70						
	Medium	20.50b	44.33						
	High	20.53b	46.10						
CH				2.74*	4, 392	-	2, 197	.03	.95
	Low	17.97	46.19						
	Medium	19.62	46.18						
	High	21.26	43.40						
JU				6.83***	4, 392	13.22 for pros	2, 197	.07	.87
	Low	17.08a	44.68						
	Medium	18.57a	46.63						
	High	22.92b	45.14						
PI				1.13	4, 392	-	2, 197	.01	.98
	Low	18.08	45.15						
	Medium	19.78	45.35						
	High	20.68	45.66						
PRECON				2.47*	4, 392	-	2, 197	.03	.95
	Low	18.09	43.77						
	Medium	19.41	46.99						
	High	20.99	44.98						

Table 2.27. Cont'd.

IV	Groups	PROS	CONS	Multivariate F	Multivariate df	Univariate F	Univariate df	η^2	Wilk's Lambda
CONT	Low	20.09	43.10	2.13	4, 392	-	2, 197	.02	.96
	Medium	18.56	46.15						
	High	19.68	46.93						
ACTION	Low	20	44.09a	2.55*	4, 392	4.76 for cons	2, 197	.03	.95
	Medium	19.37	44.15a						
	High	18.73	48.21b						
MAINT	Low	18.38	44.21a	3.24**	4, 392	3.93 for cons	2, 197	.03	.94
	Medium	18.76	43.74a						
	High	20.77	47.50b						
E	Low	21.62a	45.45	3.29**	4, 392	6.39 for pros	2, 197	.03	.94
	Medium	19.14ab	44.78						
	High	16.99b	46.10						
A	Low	21.90a	44.56	5.45***	4, 392	9.34 for pros	2, 197	.05	.90
	Medium	17.26b	44.57						
	High	17.79b	47.19						
C	Low	22.49a	43.39	7.29***	4, 392	11.82 for pros	2, 197	.07	.87
	Medium	16.66b	45.50						
	High	19.26b	47.26						

Table 2.27. Cont'd.

IV	Groups	PROS	CONS	Multivariate F	Multivariate df	Univariate F	Univariate df	η^2	Wilk's Lambda
N	Low	18.09a	45.25	4.17**	4, 392	7.94 for pros	2, 197	.04	.92
	Medium	17.96a	44.78						
	High	22.31b	46.09						
O	Low	20.96a	44.48	3.09*	4, 392	4.40 for pros	2, 197	.03	.94
	Medium	17.42b	47.05						
	High	19.94ab	44.43						
NV	Low	16.26a	47.03a	10.34***	4, 392	16.85 for pros, 4.43 for cons	2, 197	.10	.82
	Medium	20.18b	45.79ab						
	High	22.92b	42.70b						
LOC	Low	18.07	43.01a	2.98*	4, 392	3.84 for cons	2, 197	.03	.94
	Medium	19.64	47.02b						
	High	20.50	46.04ab						
INTLOC	Low	17.95	47.89a	5.75***	4, 392	9.76 for cons	2, 197	.06	.89
	Medium	20.02	46.44a						
	High	20.35	41.74b						
LOC-C	Low	17.61a	44.95	2.70*	4, 392	5.30 for pros	2, 197	.03	.95
	Medium	19.11ab	45.81						
	High	21.71b	45.30						

Table 2.27. Cont'd

IV	Groups	PROS	CONS	Multivariate F	Multivariate df	Univariate F	Univariate df	η^2	Wilk's Lambda
LOC-S				4.43**	4, 392	7.92 for pros	2, 197	.04	.92
	Low	16.71a	44.91						
	Medium	19.98b	46.60						
LOC-F	High	21.56b	44.51	2.20	4, 392	-	2, 197	.07	.96
	Low	18.79	43.31						
	Medium	20.11	47.43						
LOC-U	High	19.42	45.56	3.31**	4, 392	5.23 for pros	2, 197	.03	.94
	Low	17.38a	46.66						
	Medium	20.35b	44						
PROB.	High	21.08b	45.07	4.88***	4, 392	6.02 for pros, 4.01 for cons	2, 197	.05	.91
	Low	17.79a	43.98a						
	Medium	18.66a	44.29a						
EMOT.	High	21.92b	47.82b	1.42	4, 392	-	2, 197	.01	.97
	Low	17.87	45.13						
	Medium	19.50	45.69						
INDRCT	High	20.92	45.23	1.02	4, 392	-	2, 197	.01	.98
	Low	20.37	45.34						
	Medium	19.45	44.46						
	High	18.37	46.56						

Table 2.27. Cont'd

IV	Groups	PROS	CONS	Multivariate F	Multivariate df	Univariate F	Univariate df	η^2	Wilk's Lambda
RSE	Low	21.48a	45.36	3.06*	4, 392	5.81 for pros	2, 197	.03	.94
	Medium	17.56b	44.59						
	High	18.38b	46.01						
LEIP	Low	19.38	44.53	1.80	4, 392		2, 197	.02	.96
	Medium	19.07	43.92						
	High	19.79	47.57						
PAS	Low	18.96	43.92	1.41	4, 392	-	2, 197	.01	.97
	Medium	19.80	44.92						
	High	19.47	47.30						
NAS	Low	17.49a	43.77	4.33**	4, 392	6.71 for pros	2, 197	.04	.92
	Medium	18.98a	46.23						
	High	22.03b	46.14						

$p < .05$, ** $p < .01$, *** $p < .001$

Note. PROS = Pros of offending, CONS = Cons of offending, EN+PO = Power oriented assumptions, CR = Injustice-Oriented Assumptions, CH = Cold-Heartedness, JU = Externalizing & Trivializing Strategies, PI = Self-victimization strategies, PRECON = Precontemplation, CONT = Contemplation, ACTION = Action, MAINT = Maintenance, E = Extraversion, A = Agreeableness, C = Conscientiousness, N = Neuroticism, O = Openness to Experience, NV = Negative Valence, LOC = Locus of Control, INT LOC = Internal Locus of Control, LOC-C = Belief in Chance, LOC-S = Insignificance of Struggle, LOC-F = Fatalism, LOC-U = Belief in an Unfair World, PROB = Problem Focused Coping, EMOT = Emotion Focused Coping, INDRCT = Indirect Coping, RSE = Self-Esteem, LEIP = Level of Stress in Prisons, PAS = Positive Affect, NAS = Negative Affect.

Note 2. The mean scores that do not share the same subscript on the same column for each scale are significantly different from each other.

2.1.4.4.4. Additional DBS-C Items: Positive and Negative Attributions Related to Offending

In addition to the DBS-C items, participants were also asked about specific positive and negative attributions of offending. In this section, the frequency information is provided separately for each group of attributions. Moreover, group comparisons positive and negative attributions are investigated via Chi-Square analysis, t-test, and MANOVA. In Chi-Square Analyses, Fisher's Exact scores were provided when the expected count assumptions were not met.

2.1.4.4.4.1. Positive Attributions

2.1.4.4.4.1.1. Frequency Analysis of Positive Attributions

Regarding positive attributions of offending, 6.5 % of the participants ($n = 13$) indicated "to be respected", 5.5 % of the participants ($n = 11$) indicated "to be accepted", 8 % of the participants ($n = 16$) indicated "to be seen as tough", 18 % of the participants ($n = 36$) indicated "to protect myself", and 29.5 % of the participants ($n = 59$) indicated "financial gains" as positive attributions of offending. Moreover, there were some qualitative answers that further supported the motivation of financial gain (i.e., "for not starving to death", and "for paying my debts") and motivation of being accepted (i.e., "I had made wrong friends"). Besides, there were some answers that reflected different motivations, such as "administering justice" (e.g., "if you are doing what you believe is right, than this should not be named as crime", and "the victim was the real criminal") and "protecting others" (e.g., "looking after the rights of others who are poor and weak").

2.1.4.4.4.1.2. Group Comparisons with Positive Attributions

In order to make group comparisons (i.e., participants reporting and not-reporting positive attributions) according to demographic variables, a series of chi-square analyses were conducted separately for each positive attribution. In order to demonstrate the directions of the associations, Pearson's Rs were also computed. Prior to the analyses, continuous variables (i.e., age, age of beginning to work, number of siblings, order of birth, and age of first offence) were made categorical variables through median split. Besides, the variables that included more than 2 categories (i.e., education, military status, experience of separation from the family, and criminal history of family members) were also made categorical through

merging certain groups together. Descriptive information regarding these categorical variables is provided in Table 2.28.

Table 2.28. Descriptive Information for the Demographic Variables that were made Categorical

Variable	Levels	n	Range	Mean	SD
Age	Younger	96	18-31	26.54	3.58
	Older	102	32-66	41.32	8.29
Age of beginning to work	Younger	81	5-13	10.70	2.13
	Older	88	14-29	17.22	3.09
Number of siblings	Less	85	1-4	3.01	.98
	More	88	5-18	7.23	2.27
Order of birth	Earlier	78	1-2	1.41	.50
	Later	85	3-15	4.51	1.90
Age of first offence	Younger	77	8-22	15.90	3.02
	Older	85	22-58	32.21	8.72
Education	Less Educated	86	Illiterate – Left Secondary School	-	-
	More Educated	113	Secondary School- University	-	-
Military status	Completed	131	-	-	-
	Couldn't begin or complete	47	-	-	-
Experience of separation	Yes	67	-	-	-
	No	116	-	-	-
Criminal history of family members	Yes	52	-	-	-
	No	132	-	-	-

Summary of Chi-Square results are provided in Table 2.29. Accordingly, “being respected” was found to be associated with experience of living in the street, $\chi^2 (1) = 6.95, p < .01, r = .20$. Accordingly, the frequency of the participants who had experience of living in the street was higher in the “being respected-yes” group (69.2%) as compared to the “being respected-no” group (32.9%). “Being respected” was also found to be related to history of non-violent crime, $\chi^2 (1) = 8.03, p < .01, r = .21$. Accordingly, the frequency of the participants who had a history of non-violent crime was higher in the “being respected-yes” group (76.9%) as compared to the

“being respected-no” group (37.1%). Regarding “being accepted”, a significant result was obtained in terms of living in the street, $\chi^2(1) = 4.04, p < .05, r = .15$.

Accordingly, the frequency of the participants who had experience of living in the street was higher in the “being accepted-yes” group (63.6%) as compared to the “being respected-no” group (33.7%).

“To be seen as tough” was found to be associated with substance use, $\chi^2(1) = 13.46, p < .001, r = .27$. Accordingly, the frequency of the participants who had a history of illegal substance use was higher in the “to be seen as tough-yes” group (81.3%) as compared to the “to be seen as tough -no” group (34.5%). Moreover, a significant association was observed with experience of violence, $\chi^2(1) = 7.30, p < .01, r = .20$. Accordingly, the frequency of the participants who experienced violence during their childhood was higher in the “to be seen as tough -yes” group (68.8%) as compared to the “to be seen as tough -no” group (34.5%). Likewise, being seen as tough was found to be related to experience of living in the street, $\chi^2(1) = 5.57, p < .05, r = .18$. Accordingly, the frequency of the participants who had experience of living in the street was higher in the “to be seen as tough -yes” group (62.5%) as compared to the “to be seen as tough -no” group (32.9%). Furthermore, a significant association was observed with history of suicide, $\chi^2(1) = 4.71, p < .05, r = .16$ and history of self-harm, $\chi^2(1) = 3.96, p < .05, r = .15$. Accordingly, the frequency of the participants who had a history of suicide or self-harm was higher in the “to be seen as tough -yes” group (56.3% and 68.8%, respectively) as compared to the “to be seen as tough -no” group (29.8% and 42.9%, respectively). To be seen as tough was also found to be associated with criminal history, $\chi^2(1) = 5.23, p < .05, r = .16$ and age at first offence, $\chi^2(1) = 7.79, p < .01, r = -.22$. Accordingly, the frequency of the participants who had a previous criminal record or who offended at a younger age was higher in the “to be seen as tough -yes” group (68.8% and 84.6%, respectively) as compared to the “to be seen as tough -no” group (39.3% and 44.3%, respectively). Besides, a significant association was observed with history of non-violent crime, $\chi^2(1) = 6.11, p < .01, r = .18$. Accordingly, the frequency of the participants who had a history of non-violent crime was higher in the “to be seen as tough -yes” group (68.8%) as compared to the “to be seen as tough -no” group (37.1%).

In terms of “protecting myself”, a significant association was observed with experience of living in the street, $\chi^2 (1) = 5.83, p < .05, r = .18$. Accordingly, the frequency of the participants who had experience of living in the street was higher in the “protecting myself-yes” group (52.8%) as compared to the “protecting myself-no” group (31.3%). Furthermore, a significant association was observed with history of suicide, $\chi^2 (1) = 4.72, p < .05, r = .16$. Accordingly, the frequency of the participants who had a history of suicide was higher in the “protecting myself -yes” group (47.2%) as compared to the “protecting myself -no” group (28.4%). “Protecting myself” was also found to be associated with history of non-violent crime, $\chi^2 (1) = 4.60, p < .05, r = .16$. Accordingly, the frequency of the participants who had a history of non-violent crime was higher in the “protecting myself -yes” group (55.6%) as compared to the “protecting myself -no” group (36.1%). Besides, a significant association was observed with history of violent crime, $\chi^2 (1) = 12.73, p < .001, r = .26$ and history of illegal substance related crime, $\chi^2 (1) = 6.04, p < .01, r = -.18$. Accordingly, the frequency of the participants who had a history of violent crime was higher in the “protecting myself -yes” group (69.4%) as compared to the “protecting myself -no” group (36.8%) On the other hand, the frequency of the participants who had a history of illegal substance related crime was lower in the “protecting myself -yes” group (22.2%) as compared to the “protecting myself -no” group (44.5%).

Finally, regarding “financial gains”, a significant association was observed with age of beginning to work, $\chi^2 (1) = 5.63, p < .05, r = -.18$. Accordingly, the frequency of the participants who began working at a younger age was higher in the “financial gains -yes” group (62%) as compared to the “financial gains -no” group (42%). Furthermore, a significant association was observed with substance use, $\chi^2 (1) = 11.42, p < .001, r = .25$. Accordingly, the frequency of the participants who had a history of illegal substance use was higher in the “financial gains-yes” group (57.4%) as compared to the “financial gains -no” group (30.8%). Likewise, a significant association was observed with experience of separation, $\chi^2 (1) = 4.39, p < .05, r = .16$. Accordingly, the frequency of the participants who experienced separation from their families during childhood was higher in the “financial gains -yes” group (48.1%) as compared to the “financial gains -no” group (31.8%). “Financial gains”

was also found to be associated with criminal history, $\chi^2 (1) = 7.01, p < .01, r = .19$ and age at first offence, $\chi^2 (1) = 12.32, p < .001, r = -.28$. Accordingly, the frequency of the participants who had a previous criminal record or who offended at a younger age was higher in the “financial gains -yes” group (55.9% and 68.8%, respectively) as compared to the “financial gains -no” group (35.6% and 38.6%, respectively). Besides, a significant association was observed with history of non-violent crime, $\chi^2 (1) = 4.36, p < .05, r = .15$. Accordingly, the frequency of the participants who had a history of non-violent crime was higher in the “financial gains -yes” group (50.8%) as compared to the “financial gains -no” group (34.8%). Finally, a significant association was observed with history of sexual crime, $\chi^2 (1) = 6.55, p < .01, r = -.19$ and history of illegal substance related crime, $\chi^2 (1) = 4.51, p < .01, r = .15$. Accordingly, neither of the participants who had a history of sexual crime reported “financial gains” as a positive attribution of crime. On the other hand, the frequency of the participants who had a history of illegal substance related crime was higher in the “financial gains -yes” group (51.7%) as compared to the “financial gains -no” group (35.3%).

Table 2.29. Summary of Chi-Square Results between Positive Attributions and Demographic Variables

DV	To Be Respected		To Be Accepted		To Be Seen As Tough		To Protect Myself		Financial Gains	
	χ^2	<i>r</i>	χ^2	<i>r</i>	χ^2	<i>r</i>	χ^2	<i>r</i>	χ^2	<i>r</i>
Age	2.18	-.11	2.52	-.11	2.60	-.12	.65	-.06	1.82	-.10
Education	.05	-.02	.21	.03	.99	.07	2.80	-.12	.25	-.04
Unemployment	.72	-.06	.60	-.06	.90	-.07	1.13	.08	.07	.02
Age of beginning to work	.21	-.04	.62	-.06	.03	-.01	.12	.03	5.63*	-.18
Military status	.14	.03	.60	.06	.35	-.04	2.33	-.11	.04	.02
Number of siblings	2.62	-.12	.50	-.05	.12	-.03	.80	-.07	1.83	.10
Order of birth	2.93	-.13	.63	-.06	.20	-.04	3.42	-.15	1.78	.11
Alcohol usage problem	.16	-.03	.01	-.01	1.52	.09	.20	.03	3.28	.13
Substance use	1.37	.09	3.10	.13	13.46***	.27	2.46	.12	11.42***	.25
Separation from the family	.55	.06	1.62	.09	1.35	.09	1.55	.09	4.39*	.16
Violence in the family	1.60	.09	1.45	.09	7.30**	.20	.04	-.01	3.70	.14
Living in the street	6.95**	.20	4.04*	.15	5.57*	.18	5.83*	.18	3.11	.13
Suicide	1.28	.08	.96	.07	4.71*	.16	4.72*	.16	.06	.02
Self-harm	.43	.05	.00	.00	3.96*	.15	1.06	.07	3.37	.14
Criminal history	.11	.02	.14	-.03	5.23*	.16	1.24	.08	7.01**	.19
Age of first offence	2.16	-.12	2.55	-.13	7.79**	-.22	.26	-.04	12.32***	-.28
Criminal history of family members	1.14	-.08	.01	-.01	.74	.06	.12	.03	.01	-.01
History of non-violent crime	8.03**	.21	2.77	.12	6.11**	.18	4.60*	.16	4.36*	.15
History of violent crime	.11	-.02	.03	.01	.36	.04	12.73***	.26	.08	-.02
History of sexual crime	1.10	-.08	.92	-.07	1.38	-.09	.21	-.03	6.55**	-.19
History of illegal substance related crime	.02	-.01	.98	.07	1.84	.10	6.04**	-.18	4.51*	.15

* $p < .05$, ** $p < .01$, *** $p < .001$.

Group comparisons via self-esteem, level of stress in the prison, and external locus of control were investigated through a series of t-test analyses (see Table 2.30). Regarding “to be seen as tough”, a significant result was obtained for self-esteem, $t(193) = 3.35, p < .001$. Accordingly, participants who reported “to be seen as tough” as a positive attribution of offending reported less self-esteem ($M = 26.44$) as compared to the participants who did not report “to be seen as tough” as a positive attribution of offending ($M = 30.81$). Furthermore, in terms of “financial gains”, a significant result was obtained for level of stress in the prison, $t(193) = -4.32, p < .001$. Accordingly, participants who reported “financial gains” as a positive attribution of offending reported more stress in the prison ($M = 112.54$) as compared to the participants who did not report “financial gains” as a positive attribution of offending ($M = 84.78$).

Table 2.30. Summary of T-Test Results for Positive Attributions

DV	To Be Respected			To Be Accepted			To Be Seen As Tough			To Protect Myself			Financial Gains		
	No	Yes	<u>t</u>	No	Yes	<u>t</u>	No	Yes	<u>t</u>	No	Yes	<u>t</u>	No	Yes	<u>t</u>
RSE	30.49	29.85	.44	30.53	29.18	.84	30.81	26.44	3.35* **	30.77	29.06	1.82	30.82	29.60	1.54
LEIP	94.57	73.69	1.70	93.66	85.18	.63	92.46	101.19	-.78	93.72	90.78	.37	84.78	112.54	- 4.32* **
LOC	152.4	154.24	-.27	152.22	158.26	-.84	151.96	159.22	-1.20	152.6	152.2	.10	151.79	154.32	-.70

* $p < .05$, ** $p < .01$, *** $p < .001$.

Note 1. RSE = Self-Esteem, LEIP = Level of Stress in Prisons, LOC = External Locus of Control

Note 2. For all t scores, $df = 193$

Group comparisons via CTS-Assumptions, CTS-Defensive strategies, stages of change, decisional balance, locus of control, basic personality traits, positive and negative affect, and ways of coping were investigated through a series of MANOVA (see Table 2.31). In terms of “to be respected”, MANOVA results yielded a significant main effect for CTS-Assumptions, Multivariate $F(3, 191) = 5.55, p < .001, \eta^2 = .08$, Wilk’s Lambda = .92. Univariate results with bonferroni correction further revealed a significant result for power oriented assumptions (i.e., EN+PO), $F(1, 193) = 15.42, p < .025$, indicating that participants who reported “to be respected” as a positive attribution of offending ($M = 67.11$) reported more power oriented assumptions as compared to the participants who did not report “to be respected” as a positive attribution of offending ($M = 51.61$). Moreover, a main effect of CTS-Defensive strategies was observed, Multivariate $F(2, 192) = 3.38, p < .05, \eta^2 = .03$, Wilk’s Lambda = .97. Univariate results with bonferroni correction further revealed a significant result for externalizing and trivializing strategies (i.e., JU), $F(1, 193) = 6.42, p < .025$, indicating that participants who reported “to be respected” as a positive attribution of offending ($M = 29.44$) reported more externalizing and trivializing strategies as compared to the participants who did not report “to be respected” as a positive attribution of offending ($M = 23.64$). In addition, MANOVA results yielded a significant main effect for decisional balance, Multivariate $F(2, 192) = 18.65, p < .001, \eta^2 = .06$, Wilk’s Lambda = .94. Univariate results with bonferroni correction further revealed a significant result for pros of offending, $F(1, 193) = 30.41, p < .025$, indicating that participants who reported “to be respected” as a positive attribution of offending ($M = 29.73$) reported more pros of offending as compared to the participants who did not report “to be respected” as a positive attribution of offending ($M = 18.79$). On the other hand, Univariate results also revealed a significant result for cons of offending, $F(1, 193) = 7.06, p < .025$, indicating that participants who reported “to be respected” as a positive attribution of offending ($M = 39.46$) reported less cons of offending as compared to the participants who did not report “to be respected” as a positive attribution of offending ($M = 45.97$). Regarding “to be accepted”, MANOVA results yielded a significant main effect for CTS-Assumptions, Multivariate $F(3, 191) = 4.95, p < .01, \eta^2 = .07$, Wilk’s Lambda = .93. Univariate results with bonferroni correction further

revealed a significant result for power oriented assumptions (i.e., EN+PO), $F(1, 193) = 13.47, p < .025$, indicating that participants who reported “to be accepted” as a positive attribution of offending ($M = 67.49$) reported more power oriented assumptions as compared to the participants who did not report “to be accepted” as a positive attribution of offending ($M = 51.75$). In addition, MANOVA results yielded a significant main effect for decisional balance, Multivariate $F(2, 192) = 6.31, p < .01, \eta^2 = .06$, Wilk’s Lambda = .94. Univariate results with bonferroni correction further revealed a significant result for pros of offending, $F(1, 193) = 11.13, p < .025$, indicating that participants who reported “to be accepted” as a positive attribution of offending ($M = 26.59$) reported more pros of offending as compared to the participants who did not report “to be accepted” as a positive attribution of offending ($M = 19.10$). Moreover, a significant main effect was obtained for basic personality traits, Multivariate $F(6, 188) = 2.18, p < .05, \eta^2 = .07$, Wilk’s Lambda = .94. Univariate results with bonferroni correction further revealed a significant result for conscientiousness, $F(1, 193) = 6.15, p < .008$ and neuroticism, $F(1, 193) = 6.30, p < .008$. Accordingly, participants who reported “to be accepted” as a positive attribution of offending ($M = 29.91$) reported less conscientiousness as compared to the participants who did not report “to be accepted” as a positive attribution of offending ($M = 34.02$). However, participants who reported “to be accepted” as a positive attribution of offending ($M = 29.09$) reported more neuroticism as compared to the participants who did not report “to be accepted” as a positive attribution of offending ($M = 23.18$).

In terms of “to be seen as tough”, MANOVA results yielded a significant main effect for CTS-Assumptions, Multivariate $F(3, 191) = 9.86, p < .001, \eta^2 = .13$, Wilk’s Lambda = .87. Univariate results with bonferroni correction further revealed a significant result for power oriented assumptions, $F(1, 193) = 27.85, p < .025$, indicating that participants who reported “to be seen as tough” as a positive attribution of offending ($M = 69.52$) reported more power oriented assumptions as compared to the participants who did not report “to be seen as tough” as a positive attribution of offending ($M = 51.13$). Moreover, a main effect of CTS-Defensive strategies was observed, Multivariate $F(2, 192) = 8.05, p < .05, \eta^2 = .08$, Wilk’s Lambda = .92. Univariate results with bonferroni correction further revealed a

significant result for externalizing and trivializing strategies, $F(1, 193) = 12.15, p < .025$, indicating that participants who reported “to be seen as tough” as a positive attribution of offending ($M = 30.58$) reported more externalizing and trivializing strategies as compared to the participants who did not report “to be seen as tough” as a positive attribution of offending ($M = 23.44$). Besides, a significant univariate result was obtained for Self-victimization strategies, $F(1, 193) = 10.96, p < .025$, indicating that participants who reported “to be seen as tough” as a positive attribution of offending ($M = 39.17$) reported more Self-victimization strategies as compared to the participants who did not report “to be seen as tough” as a positive attribution of offending ($M = 31.64$). In addition, MANOVA results yielded a significant main effect for decisional balance, Multivariate $F(2, 192) = 16.40, p < .001, \eta^2 = .15, \text{Wilk's Lambda} = .85$. Univariate results with bonferroni correction further revealed a significant result for pros of offending, $F(1, 193) = 32.45, p < .025$, indicating that participants who reported “to be seen as tough” as a positive attribution of offending ($M = 28.91$) reported more pros of offending as compared to the participants who did not report “to be seen as tough” as a positive attribution of offending ($M = 18.68$). Moreover, a significant main effect was obtained for basic personality traits, Multivariate $F(6, 188) = 3.48, p < .01, \eta^2 = .10, \text{Wilk's Lambda} = .90$. Univariate results with bonferroni correction further revealed a significant result for extraversion, $F(1, 193) = 10.19, p < .008$, neuroticism, $F(1, 193) = 15.80, p < .008$, and negative valence, $F(1, 193) = 7.83, p < .008$. Accordingly, participants who reported “to be seen as tough” as a positive attribution of offending ($M = 24.50$) reported less extraversion as compared to the participants who did not report “to be seen as tough” as a positive attribution of offending ($M = 29.24$). However, participants who reported “to be seen as tough” as a positive attribution of offending reported more neuroticism ($M = 30.57$) and more negative valence ($M = 12.59$) as compared to the participants who did not report “to be seen as tough” as a positive attribution of offending ($M = 22.88$ and 9.85 for neuroticism and negative valence, respectively). Furthermore, MANOVA results yielded a significant main effect for ways of coping, Multivariate $F(3, 188) = 3.88, p < .01, \eta^2 = .06, \text{Wilk's Lambda} = .94$. Univariate results with bonferroni correction further revealed a significant result for indirect coping, $F(1, 193) = 4.80, p < .016$, indicating that participants who

reported “to be seen as tough” as a positive attribution of offending ($\underline{M} = 35.26$) reported less indirect coping as compared to the participants who did not report “to be seen as tough” as a positive attribution of offending ($\underline{M} = 38.84$).

Regarding “to protect myself”, MANOVA results yielded a significant main effect for decisional balance, Multivariate $\underline{F} (2, 192) = 4.76, p < .01, \eta^2 = .05$, Wilk’s Lambda = .95. Univariate results with bonferroni correction further revealed a significant result for pros of offending, $\underline{F} (1, 193) = 8.71, p < .025$, indicating that participants who reported “to protect myself” as a positive attribution of offending ($\underline{M} = 22.75$) reported more pros of offending as compared to the participants who did not report “to protect myself” as a positive attribution of offending ($\underline{M} = 18.79$). Moreover, a significant main effect was obtained for basic personality traits, Multivariate $\underline{F} (6, 188) = 3.04, p < .01, \eta^2 = .09$, Wilk’s Lambda = .91. Univariate results with bonferroni correction further revealed a significant result for extraversion, $\underline{F} (1, 193) = 8.19, p < .008$, neuroticism, $\underline{F} (1, 193) = 12.36, p < .008$, and negative valence, $\underline{F} (1, 193) = 7.41, p < .008$. Accordingly, participants who reported “to protect myself” as a positive attribution of offending ($\underline{M} = 26.39$) reported less extraversion as compared to the participants who did not report “to protect myself” as a positive attribution of offending ($\underline{M} = 29.41$). However, participants who reported “to protect myself” as a positive attribution of offending reported more neuroticism ($\underline{M} = 27.47$) and more negative valence ($\underline{M} = 11.61$) as compared to the participants who did not report “to protect myself” as a positive attribution of offending ($\underline{M} = 22.62$ and 9.72 for neuroticism and negative valence, respectively).

Finally, in terms of “financial gains”, MANOVA results yielded a significant main effect for CTS-Assumptions, Multivariate $\underline{F} (3, 191) = 3.39, p < .05, \eta^2 = .05$, Wilk’s Lambda = .95. Univariate results with bonferroni correction further revealed a significant result for power oriented assumptions, $\underline{F} (1, 193) = 8.03, p < .025$, indicating that participants who reported “financial gains” as a positive attribution of offending ($\underline{M} = 56.95$) reported more power oriented assumptions as compared to the participants who did not report “financial gains” as a positive attribution of offending ($\underline{M} = 50.77$). Moreover, a main effect of CTS-Defensive strategies was observed, Multivariate $\underline{F} (2, 192) = 4.70, p < .01, \eta^2 = .05$, Wilk’s Lambda = .95. Univariate

results with bonferroni correction further revealed a significant result for externalizing and trivializing strategies, $F(1, 193) = 8.72, p < .025$, indicating that participants who reported “financial gains” as a positive attribution of offending ($M = 26.57$) reported more externalizing and trivializing strategies as compared to the participants who did not report “financial gains” as a positive attribution of offending ($M = 22.92$). In addition, MANOVA results yielded a significant main effect for decisional balance, Multivariate $F(2, 192) = 4.41, p < .01, \eta^2 = .04$, Wilk’s Lambda = .96. Univariate results with bonferroni correction further revealed a significant result for pros of offending, $F(1, 193) = 6.63, p < .025$, indicating that participants who reported “financial gains” as a positive attribution of offending ($M = 21.57$) reported more pros of offending as compared to the participants who did not report “financial gains” as a positive attribution of offending ($M = 18.63$). Finally, MANOVA results yielded a significant main effect for positive and negative affect, Multivariate $F(2, 192) = 5.26, p < .01, \eta^2 = .05$, Wilk’s Lambda = .95. Univariate results with bonferroni correction further revealed a significant result for negative affect, $F(1, 193) = 10.48, p < .025$, indicating that participants who reported “financial gains” as a positive attribution of offending ($M = 28.37$) reported less indirect coping as compared to the participants who did not report “financial gains” as a positive attribution of offending ($M = 24.33$).

Table 2.31. Summary of MANOVA Results for Positive Attributions

DV	To Be Respected			To Be Accepted			To Be Seen As Tough			To Protect Myself			Financial Gains		
	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>
<u>CTS-A</u> (df = 3, 191)	$(\eta^2 = .08, \text{Wilk's } \Lambda = .92)$			$(\eta^2 = .07, \text{Wilk's } \Lambda = .93)$			$(\eta^2 = .13, \text{Wilk's } \Lambda = .87)$			$(\eta^2 = .01, \text{Wilk's } \Lambda = .99)$			$(\eta^2 = .05, \text{Wilk's } \Lambda = .95)$		
			5.55**			4.95**			9.86**			.93			3.39*
ENPO	51.61	67.11	15.42	51.75	67.49	13.47	51.87	56.06	-	50.77	56.95	8.03	50.77	56.95	
CR	34.84	40.00	3.43	34.89	40.15	3.05	35.14	35.42	-	34.19	37.49	4.78	34.19	37.49	
CH	15.15	16.31	.52	15.15	16.55	.65	15.17	15.50	-	15.15	15.40	.08	15.15	15.40	
<u>CTS-D</u> (df = 2, 192)	$(\eta^2 = .03, \text{Wilk's } \Lambda = .97)$			$(\eta^2 = .03, \text{Wilk's } \Lambda = .97)$			$(\eta^2 = .08, \text{Wilk's } \Lambda = .92)$			$(\eta^2 = .03, \text{Wilk's } \Lambda = .98)$			$(\eta^2 = .05, \text{Wilk's } \Lambda = .95)$		
			3.38*			2.62			8.05**			2.48			4.70*
JU	23.64	29.44	6.42	23.72	29.12	-	23.42	26.70	-	22.92	26.57	8.72	22.92	26.57	
PI	31.97	36.28	2.85	32.01	36.52	-	31.99	33.43	-	31.40	34.26	4.31	31.40	34.26	
<u>SOCS-C</u> (df = 4, 190)	$(\eta^2 = .04, \text{Wilk's } \Lambda = .96)$			$(\eta^2 = .08, \text{Wilk's } \Lambda = .92)$			$(\eta^2 = .08, \text{Wilk's } \Lambda = .92)$			$(\eta^2 = .04, \text{Wilk's } \Lambda = .96)$			$(\eta^2 = .02, \text{Wilk's } \Lambda = .98)$		
			1.90			3.92**			4.02**			1.93			1.05
PRECON	22.51	21.88	-	22.55	21.21	.57	22.34	23.06	-	22.48	22.46	-	22.48	22.46	
CONT.	30.14	30.04	-	30.08	31.04	.27	30.34	29.21	-	29.90	30.67	-	29.90	30.67	
ACTION	31.44	29.24	-	31.41	29.36	1.06	31.48	30.49	-	30.97	32.04	-	30.97	32.04	
MAINT	25.21	26.92	-	25.11	28.91	3.20	25.09	26.40	-	24.71	26.75	-	24.71	26.75	
<u>DBS-C</u> (df = 2, 192)	$(\eta^2 = .16, \text{Wilk's } \Lambda = .84)$			$(\eta^2 = .06, \text{Wilk's } \Lambda = .94)$			$(\eta^2 = .15, \text{Wilk's } \Lambda = .85)$			$(\eta^2 = .05, \text{Wilk's } \Lambda = .95)$			$(\eta^2 = .04, \text{Wilk's } \Lambda = .96)$		
			18.65**			6.31**			16.40**			4.76*			4.41*
PROS	18.79	29.73	30.41	19.10	26.59	11.13	18.79	22.75	8.71	18.63	21.57	6.63	18.63	21.57	
CONS	45.97	39.46	7.06	45.75	41.99	1.97	45.86	44.13	1.17	45.02	46.73	.21	45.02	46.73	
<u>LOC</u> (df = 5, 189)	$(\eta^2 = .04, \text{Wilk's } \Lambda = .96)$			$(\eta^2 = .05, \text{Wilk's } \Lambda = .95)$			$(\eta^2 = .04, \text{Wilk's } \Lambda = .97)$			$(\eta^2 = .05, \text{Wilk's } \Lambda = .95)$			$(\eta^2 = .01, \text{Wilk's } \Lambda = .99)$		
			1.44			2.10			1.37			2.14			.26
INTLOC	37.70	43.63	-	38.03	39.20	-	37.39	41.20	-	37.39	41.20	-	38.44	37.30	
LOC-C	29.12	30.08	-	29.08	30.91	-	28.99	29.99	-	28.99	29.99	-	29.11	29.34	
LOC-S	26.53	31.16	-	26.52	32.27	-	26.38	28.89	-	26.38	28.89	-	26.67	27.24	
LOC-F	11.24	11.39	-	11.27	10.91	-	11.36	10.75	-	11.36	10.75	-	11.30	11.12	
LOC-U	13.06	14.58	-	13.15	13.41	-	13.15	13.24	-	13.15	13.24	-	12.99	13.54	

Table 2.31. Cont'd

DV	To Be Respected			To Be Accepted			To Be Seen As Tough			To Protect Myself			Financial Gains		
	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>
<u>BPTI</u> (df = 6, 188)	(η ² = .05, Wilk's Lambda = .95)			(η ² = .07, Wilk's Lambda = .94)			(η ² = .10, Wilk's Lambda = .90)			(η ² = .09, Wilk's Lambda = .91)			(η ² = .02, Wilk's Lambda = .98)		
E	29.02	26.46	-	28.89	28.27	.12	29.41	26.39	8.19	29.41	26.39	-	28.65	29.32	
A	36.50	34.09	-	36.47	34.09	3.97	36.53	35.50	2.05	36.53	35.50	-	36.19	36.68	
C	33.98	31.21	-	34.02	29.91	6.15	34.27	31.68	6.95	34.27	31.68	-	33.68	34.05	
N	23.16	28.46	-	23.18	29.09	6.30	22.62	27.47	12.36	22.62	27.47	-	23.20	24.25	
O	24.81	23.86	-	24.86	22.73	2.76	24.90	24.03	1.29	24.90	24.03	-	24.47	25.38	
NV	9.93	12.11	-	9.93	12.44	4.55	9.72	11.61	7.41	9.72	11.61	-	9.94	10.39	
<u>PANAS</u> (df = 2, 192)	(η ² = .00, Wilk's Lambda = .99)			(η ² = .00, Wilk's Lambda = .99)			(η ² = .03, Wilk's Lambda = .97)			(η ² = .01, Wilk's Lambda = .99)			(η ² = .05, Wilk's Lambda = .95)		
PAS	35.40	36.60	-	35.51	34.97	-	35.40	36.60	-	35.74	34.33		35.20	36.11	.51
NAS	25.46	26.81	-	25.46	27.18	-	25.46	26.81	-	25.58	25.45		24.33	28.37	10.48
<u>WCI</u> (df = 3, 188)	(η ² = .06, Wilk's Lambda = .94)			(η ² = .06, Wilk's Lambda = .94)			(η ² = .06, Wilk's Lambda = .94)			(η ² = .02, Wilk's Lambda = .99)			(η ² = .01, Wilk's Lambda = .99)		
PROBLEM	94.43	88.92	2.94	94.25	91.93	-	94.56	89.28	3.19	94.74	91.40		94.37	93.51	
EMOTION	65.35	71.42	2.38	65.42	75.20	-	65.33	69.72	1.47	65.72	65.61		65.06	67.25	
INDIRECT	38.76	35.21	3.94	38.61	37.29	-	38.84	35.26	4.80	38.76	37.59		38.54	38.54	

* $p < .05$, ** $p < .01$, *** $p < .001$.

Note 1. MF = Multivariate F, UF = Univariate F, CTS-A = Criminal Thinking Scale-Assumptions, CTS-D = Criminal Thinking Scale-Defensive Strategies, ENPO = Power Oriented Assumptions, CR = Injustice-Oriented Assumptions, CH = Cold-Heartedness, JU = Externalizing & Trivializing Strategies, PI = Self-victimization strategies, SOCS-C = Stages of Change Scale for Criminals, PRECON = Precontemplation, CONT = Contemplation, ACTION = Action, MAINT = Maintenance, DBS-C = Decisional Balance Scale for Criminals, PROS = Pros of offending, CONS = Cons of offending, LOC = Locus of Control, INT LOC = Internal Locus of Control, LOC-C = Belief in Chance, LOC-S = Insignificance of Struggle, LOC-F = Fatalism, LOC-U = Belief in an Unfair World, BPTI = Basic Personality Traits Inventory, E = Extraversion, A = Agreeableness, C = Conscientiousness, N = Neuroticism, O = Openness to Experience, NV = Negative Valence, PANAS = Positive and Negative Affect Schedule, PAS = Positive Affect, NAS = Negative Affect, WCI = Ways of Coping Inventory, PROBLEM = Problem Focused Coping, EMOTION = Emotion Focused Coping, INDIRECT = Indirect Coping.

Note 2. For all Univariate F scores, df = 1, 193

2.1.4.4.2. Negative Attributions

2.1.4.4.2.1. Frequency Analysis of Negative Attributions

Regarding negative attributions of offending, 60 % of the participants ($n = 120$) indicated “being sentenced”, 46.5 % of the participants ($n = 93$) indicated “to be insulted”, 53.5 % of the participants ($n = 107$) indicated “being stigmatized as a criminal”, 54.5 % of the participants ($n = 109$) indicated “rejection from community”, and 66.5 % of the participants ($n = 133$) indicated “degradation” as negative attributions of offending. Moreover, there were some qualitative answers that reflected different cons of offending, such as “families suffering loss” (e.g., “break down in the family system”, “psychological problems of the children”, “disappointment felt by the family members”, and “family name is stained”), “feeling of longing” (e.g., “being separated from the family”, “missing the family members and friends”, “missing the spouse”), “material loss”, “spiritual loss” (e.g., “I will not be forgiven by the God”), “loss of time” (e.g., “squandering the most valuable times”), “general feeling of loss” (e.g., “loss of everything positive” and “loss of the people I love”), “being isolated from the society”, and “feelings of shame”.

2.1.4.4.2.2. Group Comparisons with Negative Attributions

Similar to the analyses conducted for positive attributions, in order to make group comparisons (i.e., participants reporting and not-reporting negative attributions) according to demographic variables, a series of chi-square analyses were conducted separately for each negative attribution. In order to demonstrate the directions of the associations, Pearson’s Rs were also computed.

Summary of Chi-Square results are provided in Table 2.32. Accordingly, “being sentenced” was found to be associated with unemployment, $\chi^2 (1) = 6.45, p < .01, r = -.19$. Accordingly, the frequency of the participants who were unemployed was lower in the “being sentenced-yes” group (1.8%) as compared to the “being sentenced-no” group (10.3%). “Being sentenced” was also found to be related to history of suicide, $\chi^2 (1) = 4.01, p < .05, r = -.15$. Accordingly, the frequency of the participants who had a history of suicide was lower in the “being sentenced-yes” group (26.8%) as compared to the “being sentenced-no” group (41.2%). Regarding “to be insulted”, a significant result was obtained in terms of unemployment, $\chi^2 (1) =$

5.26, $p < .05$, $r = -.17$. Accordingly, the frequency of the participants who were unemployed was lower in the “being insulted-yes” group (1.1%) as compared to the “being insulted-no” group (8.6%). Besides, a significant result was obtained in terms of number of siblings, $\chi^2 (1) = 4.98$, $p < .05$, $r = .17$. Accordingly, the frequency of the participants who had more than two siblings was higher in the “being insulted-yes” group (59%) as compared to the “being insulted-no” group (41.9%). Moreover, a significant result was also obtained in terms of history of sexual crime, $\chi^2 (1) = 5.41$, $p < .05$, $r = .17$. Accordingly, the frequency of the participants who had a history of sexual crime was higher in the “being insulted-yes” group (12.1%) as compared to the “being insulted-no” group (3.1%).

“To be stigmatized” was found to be associated with education, $\chi^2 (1) = 3.82$, $p < .05$, $r = -.14$. Accordingly, the frequency of the participants who were more educated was lower in the “to be stigmatized-yes” group (51.4%) as compared to the “to be stigmatized -no” group (65.5%). Moreover, a significant association was observed with military status, $\chi^2 (1) = 5.89$, $p < .05$, $r = .18$. Accordingly, the frequency of the participants who couldn’t begin or complete their military service was higher in the “to be stigmatized -yes” group (34.4%) as compared to the “to be stigmatized -no” group (17.9%). Likewise, being stigmatized was found to be related to experience of living in the street, $\chi^2 (1) = 7.28$, $p < .01$, $r = .20$. Accordingly, the frequency of the participants who had experience of living in the street was higher in the “to be stigmatized -yes” group (44.4%) as compared to the “to be stigmatized -no” group (25%). To be stigmatized was also found to be associated with history of violent crime, $\chi^2 (1) = 6.22$, $p < .01$, $r = -.18$ and age at first offence, $\chi^2 (1) = 5.64$, $p < .05$, $r = -.19$. Accordingly, the frequency of the participants who had a history of violent crime was lower in the “to be stigmatized -yes” group (34.3%) as compared to the “to be stigmatized -no” group (52.4%). However, the frequency of the participants who offended at a younger age was higher in the “to be stigmatized -yes” group (56.7%) as compared to the “to be stigmatized -no” group (37.7%).

In terms of “rejection from the community”, a significant association was observed with unemployment, $\chi^2 (1) = 7.79$, $p < .01$, $r = -.21$. Accordingly, the frequency of the participants who were unemployed was lower in the “rejection from the community -yes” group (1%) as compared to the “rejection from the community -

no” group (10.1%). Furthermore, a significant association was observed with number of siblings, $\chi^2(1) = 8.22, p < .01, r = .22$. Accordingly, the frequency of the participants who had more than two siblings was higher in the “rejection from the community -yes” group (59.8%) as compared to the “rejection from the community -no” group (37.5%). “Rejection from the community” was also found to be associated with experience of violence, $\chi^2(1) = 3.77, p < .05, r = .15$. Accordingly, the frequency of the participants who experienced violence in their family during their childhood was higher in the “rejection from the community -yes” group (44.6%) as compared to the “rejection from the community -no” group (30.4%). Besides, a significant association was observed with history of violent crime, $\chi^2(1) = 18.06, p < .001, r = -.31$ and history of illegal substance related crime, $\chi^2(1) = 7.87, p < .01, r = .21$. Accordingly, the frequency of the participants who had a history of violent crime was lower in the “rejection from the community -yes” group (29%) as compared to the “rejection from the community -no” group (60%). On the other hand, the frequency of the participants who had a history of illegal substance related crime was higher in the “rejection from the community -yes” group (50%) as compared to the “rejection from the community -no” group (29.6%).

Finally, regarding “degradation”, a significant association was observed with unemployment, $\chi^2(1) = 5.30, p < .05, r = -.17$. Accordingly, the frequency of the participants who were unemployed was lower in the “degradation -yes” group (2.5%) as compared to the “degradation -no” group (10.5%). Moreover, a significant association was observed with number of siblings, $\chi^2(1) = 13.48, p < .001, r = .28$. Accordingly, the frequency of the participants who had more than two siblings was higher in the “degradation -yes” group (59.5%) as compared to the “degradation -no” group (28.8%). “Degradation” was also found to be associated with the order of birth, $\chi^2(1) = 6.72, p < .01, r = .21$. Accordingly, the frequency of the participants who were the first or the second child was lower in the “degradation -yes” group (40.7%) as compared to the “degradation -no” group (62.7%). Furthermore, a significant association was observed with substance use, $\chi^2(1) = 9.49, p < .01, r = -.23$. Accordingly, the frequency of the participants who had a history of illegal substance use was lower in the “degradation -yes” group (32%) as compared to the “degradation -no” group (56.1%). Finally, a significant association was observed

with history of violent crime, $\chi^2 (1) = 14.03, p < .001$. Accordingly, the frequency of the participants who had a history of violent crime was lower in the “degradation - yes” group (32.8%) as compared to the “degradation -no” group (62.1%).

Table 2.32. Summary of Chi-Square Results between Negative Attributions and Demographic Variables

DV	Being sentenced		To be insulted		Being Stigmatized as a Criminal		Rejection from the Community		Degradation	
	χ^2	<i>r</i>	χ^2	<i>r</i>	χ^2	<i>r</i>	χ^2	<i>r</i>	χ^2	<i>r</i>
Age	1.00	-.08	1.35	-.08	2.13	-.11	.34	.04	1.72	.10
Education	.00	.00	.03	-.01	3.82*	-.14	.28	-.04	1.41	-.09
Unemployment	6.45**	.19	5.26*	.17	1.90	.10	7.79**	.21	5.30*	.17
Age of beginning to work	.25	-.04	2.43	-.12	1.42	-.09	.56	-.06	3.11	-.14
Military status	.04	.02	3.29	.14	5.89*	.18	.38	.05	1.34	.09
Number of siblings	1.13	-.08	4.98*	.17	1.33	.09	8.22**	.22	13.48***	.28
Order of birth	1.82	-.11	.02	-.01	2.88	-.13	.51	.06	6.72**	.21
Alcohol usage problem	.38	.05	2.94	.13	.56	.06	.09	.02	.00	.00
Substance use	.00	.00	.01	-.01	.23	.04	1.39	-.09	9.49**	-.23
Separation from the family	.09	-.02	.03	-.01	.03	.01	.00	.01	.17	-.03
Violence in the family	3.68	.14	3.00	.13	3.06	.13	3.77*	.15	.05	.02
Living in the street	1.92	.10	.49	.05	7.28**	.20	.15	.03	.90	-.07
Suicide	4.01*	-.15	.94	-.07	.33	.04	.02	.01	.28	-.04
Self-harm	.03	.01	.00	.00	2.27	.11	.03	.01	1.84	-.10
Criminal history	.28	-.04	.05	.02	.29	.04	1.43	-.09	1.21	-.08
Age of first offence	.00	.00	1.37	-.09	5.64*	-.19	.56	-.06	.02	-.01
Criminal history of family members	1.62	-.10	.30	-.04	2.41	.12	.04	-.02	.96	-.07
History of non-violent crime	1.87	.10	1.14	-.08	.01	-.01	.39	-.05	1.13	-.08
History of violent crime	.77	-.06	3.64	-.14	6.22**	-.18	18.06***	-.31	14.03***	-.28
History of sexual crime	.45	.05	5.41*	.17	3.09	.13	.00	.00	.67	.06
History of illegal substance related crime	.75	.06	3.12	.13	.90	.07	7.87**	.21	1.66	.10

* $p < .05$, ** $p < .01$, *** $p < .001$.

Group comparisons via self-esteem, level of stress in the prison, and external locus of control were investigated through a series of t-test analyses. As can be seen in Table 2.33, t-test results did not provide any significant association between negative attributions of offending and aforementioned variables.

Group comparisons via CTS-Assumptions, CTS-Defensive strategies, stages of change, decisional balance, locus of control, basic personality traits, positive and negative affect, and ways of coping were investigated through a series of MANOVA (see Table 2.34). The results failed to provide a significant association in terms of “being sentenced”, “to be insulted”, and “rejection from the community”. However, in terms of “being stigmatized as a criminal”, MANOVA results yielded a significant main effect for ways of coping, Multivariate $F(3, 185) = 4.35, p < .01, \eta^2 = .07$, Wilk’s Lambda = .93. Univariate results with bonferroni correction further revealed a significant result for indirect coping, $F(1, 190) = 12.31, p < .016$, indicating that participants who reported “being stigmatized as a criminal” as a negative attribution of offending ($M = 39.79$) reported more indirect coping as compared to the participants who did not report “being stigmatized as a criminal” as a negative attribution of offending ($M = 36.61$). Finally, in terms of “degradation”, MANOVA results yielded a significant main effect for decisional balance, Multivariate $F(2, 189) = 3.65, p < .05, \eta^2 = .04$, Wilk’s Lambda = .96. Univariate results with bonferroni correction further revealed a significant result for pros of offending, $F(1, 190) = 7.23, p < .025$, indicating that participants who reported “degradation” as a negative attribution of offending ($M = 18.49$) reported less pros of offending as compared to the participants who did not report “degradation” as a negative attribution of offending ($M = 21.52$).

Table 2.33. Summary of T-Test Results for Negative Attributions

DV	Being sentenced			To be insulted			Being Stigmatized as a Criminal			Rejection from the Community			Degradation		
	No	Yes	<u>t</u>	No	Yes	<u>t</u>	No	Yes	<u>t</u>	No	Yes	<u>t</u>	No	Yes	<u>t</u>
RSE	29.38	31.04	-2.20*	30.26	30.59	-.45	30.25	30.55	-.40	29.99	30.75	-1.01	30.36	30.45	-.11
LEIP	88.94	95.93	-1.10	90.28	90.53	-1.01	89.91	96.01	-.98	91.21	94.91	-.59	98.60	90.65	1.19
LOC	152.7	152.6	.04	152.70	152.53	.05	150.79	154.07	-.96	151.84	153.21	-.40	151.98	152.91	-.25

* $p < .05$, ** $p < .01$, *** $p < .001$.

Note 1. RSE = Self-Esteem, LEIP = Level of Stress in Prisons, LOC = Locus of Control

Note 2. For all t scores, $df = 190$

Table 2.34. Summary of MANOVA Results for Negative Attributions

DV	Being sentenced			To be insulted			Being Stigmatized as a Criminal			Rejection from the Community			Degradation		
	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>
<u>CTS-ASSUMPTIONS</u> (df = 3, 188)	(η ² = .03, Wilk's Lambda = .98)			(η ² = .01, Wilk's Lambda = .99)			(η ² = .01, Wilk's Lambda = .99)			(η ² = .02, Wilk's Lambda = .98)			(η ² = .03, Wilk's Lambda = .97)		
EN+PO	50.83	53.81	-	53.31	52.03	-	52.76	52.64	-	54.99	50.94	-	56.35	50.96	-
CR	33.60	36.02	-	35.21	35.01	-	34.73	35.41	-	35.47	34.84	-	36.01	34.71	-
CH	16.00	14.85	-	15.47	15.08	-	15.86	14.82	-	15.55	15.07	-	15.67	15.01	-
<u>CTS-DEFENSES</u> (df = 2, 192)	(η ² = .03, Wilk's Lambda = .97)			(η ² = .01, Wilk's Lambda = .99)			(η ² = .02, Wilk's Lambda = .98)			(η ² = .01, Wilk's Lambda = .99)			(η ² = .03, Wilk's Lambda = .97)		
JU	24.13	23.79	-	24.26	23.56	-	23.00	24.64	-	24.73	23.30	-	25.93	22.97	-
PI	30.46	33.11	-	31.70	32.56	-	30.79	33.17	-	32.21	32.04	-	33.53	31.49	-
<u>SOCS-C</u> (df = 4, 190)	(η ² = .03, Wilk's Lambda = .97)			(η ² = .03, Wilk's Lambda = .97)			(η ² = .01, Wilk's Lambda = .99)			(η ² = .01, Wilk's Lambda = .99)			(η ² = .01, Wilk's Lambda = .99)		
PRECON	22.20	22.76	-	22.48	22.62	-	22.48	22.60	-	22.74	22.41	-	23.11	22.30	-
CONT.	30.67	29.95	-	30.30	30.14	-	30.29	30.17	-	30.31	30.16	-	29.88	30.40	-
ACTION	31.80	31.18	-	31.52	31.30	-	31.39	31.43	-	31.44	31.39	-	31.52	31.42	-
MAINT	24.76	25.78	-	24.73	26.11	-	24.79	25.88	-	25.12	25.61	-	25.04	25.56	-
<u>DBS-C</u> (df = 2, 192)	(η ² = .01, Wilk's Lambda = .99)			(η ² = .00, Wilk's Lambda = 1.00)			(η ² = .01, Wilk's Lambda = .99)			(η ² = .02, Wilk's Lambda = .98)			(η ² = .04, Wilk's Lambda = .96)		
PROS	18.75	20.00	-	19.78	19.26	-	20.14	19.05	-	20.67	18.67	-	21.52	18.49	7.23
CONS	44.62	46.00	-	45.67	45.29	-	45.69	45.32	-	45.21	45.69	-	45.66	45.44	.03

Table 2.34. *Cont'd.*

DV	Being sentenced			To be insulted			Being Stigmatized as a Criminal			Rejection from the Community			Degradation		
	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>
<u>LOC</u> (df = 5, 189)	(η ² = .02, Wilk's Lambda = .98)			(η ² = .03, Wilk's Lambda = .97)			(η ² = .01, Wilk's Lambda = .99)			(η ² = .03, Wilk's Lambda = .97)			(η ² = .06, Wilk's Lambda = .94)		
			.77			1.09			.32			1.16			2.20
INTLOC	38.91	37.60	-	-	38.44	37.72	-	38.61	37.68	-	40.26	36.44	-	-	-
LOC-C	28.91	29.41	-	-	28.72	29.75	-	28.86	29.51	-	29.32	29.14	-	-	-
LOC-S	27.63	26.42	-	-	27.44	26.26	-	26.25	27.36	-	27.56	26.35	-	-	-
LOC-F	11.18	11.26	-	-	11.21	11.25	-	11.14	11.30	-	11.22	11.24	-	-	-
LOC-U	13.60	12.89	-	-	13.31	12.99	-	12.68	13.54	-	13.46	12.93	-	-	-
<u>BPTI</u> (df = 6, 188)	(η ² = .03, Wilk's Lambda = .97)			(η ² = .04, Wilk's Lambda = .96)			(η ² = .08, Wilk's Lambda = .92)			(η ² = .05, Wilk's Lambda = .95)			(η ² = .05, Wilk's Lambda = .95)		
			1.09			1.24			2.54*			1.75			1.61
E	29.57	28.43	-	29.88	27.77	-	30.03	27.93	6.29	29.92	28.05	-	29.16	28.71	-
A	36.57	36.15	-	36.35	36.26	-	36.03	36.53	.79	36.04	36.51	-	36.24	36.34	-
C	34.13	33.53	-	33.79	33.72	-	33.86	22.68	.05	33.65	33.84	-	33.47	33.84	-
N	22.91	23.92	-	23.15	23.97	-	23.79	23.35	.15	23.47	23.60	-	25.20	22.79	-
O	24.42	24.93	-	24.71	24.76	-	24.32	25.06	1.50	24.39	25.00	-	24.33	24.95	-
NV	10.08	10.02	-	9.76	10.34	-	9.86	10.18	.34	10.26	9.88	-	10.63	9.76	-
<u>PANAS</u> (df = 2, 192)	(η ² = .00, Wilk's Lambda = 1.00)			(η ² = .00, Wilk's Lambda = 1.00)			(η ² = .01, Wilk's Lambda = .99)			(η ² = .00, Wilk's Lambda = 1.00)			(η ² = .02, Wilk's Lambda = .98)		
			.01			.21			.49			.33			1.70
PAS	35.31	35.50	-	35.81	35.04	-	34.78	35.95	-	35.81	35.14	-	37.01	34.81	-
NAS	25.42	25.53	-	25.61	25.37	-	25.31	25.63	-	25.23	25.69	-	26.54	25.04	-

Table 2.34. *Cont'd.*

<u>WCI</u> (df = 3, 188)	$(\eta^2 = .00,$ Wilk's Lambda = 1.00)		.06	$(\eta^2 = .01,$ Wilk's Lambda = .99)		.42	$(\eta^2 = .07,$ Wilk's Lambda = .93)		4.35* *	$(\eta^2 = .01,$ Wilk's Lambda = .99)		.30	$(\eta^2 = .01,$ Wilk's Lambda = .99)		.39
PROBLEM	93.98	94.08	-	94.66	93.40	-	93.69	94.33	.15	93.40	94.53	-	92.94	94.70	-
EMOTION	66.03	65.31	-	65.82	65.32	-	64.57	66.38	.79	64.67	66.25	-	64.62	65.94	-
INDIRECT	38.56	38.27	-	38.17	38.59	-	36.61	39.79	12.31	38.19	38.52	-	38.16	38.47	-

* $p < .05$, ** $p < .01$, *** $p < .001$.

Note 1. MF = Multivariate F, UF = Univariate F, EN+PO = Power oriented assumptions, CR = Injustice-Oriented Assumptions, CH = Cold-Heartedness, JU = Externalizing & Trivializing Strategies, PI = Self-victimization strategies, SOCS-C = Stages of Change Scale for Criminals, PRECON = Precontemplation, CONT = Contemplation, ACTION = Action, MAINT = Maintenance, DBS-C = Decisional Balance Scale for Criminals, PROS = Pros of offending, CONS = Cons of offending, LOC = Locus of Control, INT LOC = Internal Locus of Control, LOC-C = Belief in Chance, LOC-S = Insignificance of Struggle, LOC-F = Fatalism, LOC-U = Belief in an Unfair World, BPTI = Basic Personality Traits Inventory, E = Extraversion, A = Agreeableness, C = Conscientiousness, N = Neuroticism, O = Openness to Experience, NV = Negative Valence, PANAS = Positive and Negative Affect Schedule, PAS = Positive Affect, NAS = Negative Affect, WCI = Ways of Coping Inventory, PROBLEM = Problem Focused Coping, EMOTION = Emotion Focused Coping, INDIRECT = Indirect Coping.

Note 2. For all Univariate F scores, df = 1, 190

2.1.5. Discussion

2.1.5.1. Psychometric Properties of Criminal Thinking Scale

One of the aims of the present study was to evaluate the concept of criminal thinking in terms of the suggested distinction between assumptions and defensive strategies (Maruna & Mann, 2006). Initial attempt of principle components analysis failed to separate these constructs, with defensive strategies being attached to the associated assumptions. This is in fact an expected finding, taking into account the assumption that the defensive strategies stem from associated beliefs and the assumptions, though their mechanisms are different (Maruna & Mann, 2006). Therefore, these constructs were treated as separate scales. In order to do this, items of the subscales were re-examined as to whether they were representing more stable thoughts (i.e., assumptions) related to the view of the self or the world or whether they were representing relatively temporal thoughts (i.e., strategies) towards defending the criminal activity. Accordingly, items that constituted for the “Entitlement” (e.g., “Society owes you a better life”), “Power Orientation” (e.g., The only way to protect yourself is to be ready to fight”), “Criminal Rationalization” (e.g., Bankers, lawyers, and politicians get away with breaking the law everyday), and “Cold-Heartedness” dimensions (e.g., You feel people are important to you – recoded item) represented the “Assumptions Scale”, whereas items that constituted for the “Justification” (e.g., When questioned about the motives for engaging in crime, you justify your behavior by pointing out how hard your life has been) and the “Personal Irresponsibility” dimensions (e.g., You are in prison now because you had a run of bad luck) represented the “Defensive Strategies Scale”. It should be noted that there were some items in the Assumptions Scale that were more representative of the Defensive Strategies Scale or vice versa. However, the original factor structure was maintained as much as possible. Yet, in order to clarify the distinction between Assumptions and Defensive Strategies, labels of the factors were changed taking into account the general meaning that their items implied. Accordingly, “Criminal Rationalization” was labeled as “Injustice-Oriented Assumptions”, “Justification” was labeled as “Externalizing and trivializing strategies”, and “Personal Irresponsibility” was labeled as “Self-victimization strategies”. The labels of other dimensions were kept as the same.

Regarding the Assumption Scale, Entitlement and Power Orientation dimensions were observed to be represented within the same factor, while Injustice-Oriented Assumptions and Cold-Heartedness were represented separately. The reason why entitlement and power orientation did not differentiate from each other might be because of their common contribution to the narcissistic personality characteristics that possess self-regulatory features to present a more powerful, competent, and self-aggrandizing image (Rhodewalt & Peterson, 2009). Therefore these factors were together labeled as “Power-Oriented Assumptions”.

The principle components analysis as well as the reliability analyses generally revealed good psychometric properties for the Assumptions Scale. In terms of the Power-Oriented Assumptions, the concurrent validity analyses revealed that the dimension was basically associated with being younger (both at the time of data collection and at the first criminal offence), history of living in the street, and a deviant life style (i.e., substance use, history of non-violent crime). Besides, power-oriented assumptions were found to be associated with the personality traits that are commonly observed among people with narcissistic personality characteristics (i.e., low level of agreeableness, high level of neuroticism, and high level of negative valence) (Rhodewalt & Peterson, 2009). Moreover, a positive association was obtained with pros of offending, indicating a strong relationship between power-oriented assumptions and positive view of criminality. In addition, power-oriented assumptions were observed to be related to external locus of control (both total score and sub-scales like belief in chance, insignificance of struggle, and belief in an unfair world). Taking into account the notion that power-oriented individuals generally strive for exercising control (Rhodewalt & Peterson, 2009), a lack of internal sense of control might be related to a higher order core belief about powerlessness (e.g., I don't have enough power to control my environment). A negative correlation with self-esteem is also supportive of this interpretation highlighting that individuals with power-oriented assumptions might possess inflated positive self-evaluations that reflect a fragile self-concept (Rhodewalt & Eddings, 2002). Therefore, power-oriented assumptions might be reflecting an over-compensatory attitude towards dealing with the core belief, which further justifies the powerlessness schema (Rhodewalt & Peterson, 2009). In addition, power-oriented assumptions were

observed to be associated with negative affect and emotion-focused coping strategies, implying for lacking adaptive means of coping, which might also contribute to criminality. Power-oriented assumptions were further found to be positively associated with precontemplation and maintenance stages of change, which will be discussed in detail in the next section (see Section 2.1.5.2).

Criterion validity findings further supported the positive relationship between power-oriented assumptions and precontemplation, pros of offending, neuroticism, locus of control, belief in an unfair world, and negative affect, as well as the negative relationships with agreeableness and self-esteem. In addition, a negative relationship between power-oriented assumptions and conscientiousness was observed, indicating that participants with lower level of conscientiousness reported more power-oriented assumptions. Moreover, power-oriented assumptions were found to differentiate the low, medium, and high levels of negative valence, belief in chance, and insignificance of struggle, indicating that these factors might be characteristic for the individuals with power-oriented assumptions. As mentioned above, power-oriented assumptions might be related to a higher order schema which implies powerlessness and lack of control. Therefore, the relationship between negative valence and the power-oriented assumptions might be indicative of a negative view of the self. Besides, a general view of the self as powerless might be associated with a hypervigilant perception of unsuccessful attempts (Rhodewalt & Peterson, 2009) and therefore engaging more in external locus of control strategies for making causal attributions (Furnham, 2009).

Regarding the Injustice-Oriented Assumptions, the concurrent validity analyses revealed that the dimension was basically associated with substance use and beginning to work at a younger age, suggesting that, participants having assumptions of the world as unjust might have developed these assumptions during their work experiences at relatively young ages. In addition, like power-oriented assumptions, Injustice-Oriented Assumptions was also related to external locus of control (both total score and sub-scales like belief in chance, insignificance of struggle, and belief in an unfair world). It's frequently articulated that a general belief in a just world is associated with internal locus of control (Furnham & Procter, 1989). Therefore, individuals who have an assumption that the world is unjust might be lacking a sense

of control, implying that they commonly experience unfair treatment (i.e., belief in an unfair world), whatever they do they can never be treated fairly (i.e., insignificance of struggle), and good things happen to them only by chance (i.e., belief in chance). Dalbert (2009) further suggested that a general belief in a just world is positively associated with interpersonal trust. Therefore, it is reasonable to assume that belief in injustice might be associated with a general view of others as not-trustworthy. Besides, these individuals might have developed offending as a strategy to administer justice and to feel a sense of control over the events. However, it's not known whether administering justice stem from a general or personal belief in injustice. It should be noted that, unlike power-oriented assumptions, Injustice-Oriented Assumptions was not related with any of the basic personality traits, which might be because learning that the world is unjust might be a more common experience whereas strategies to cope with these assumptions (e.g., administering justice) might vary due to individual differences. In addition, Injustice-Oriented Assumptions were observed to be positively associated with pros of offending and precontemplation, indicating that individuals having these assumptions might view offending as a way to achieve their goals and they might think that pro-social means are useless. Attributing the problems to the external events (i.e., to the unjust world), these individuals might not acknowledge that they have a problem to change. Lastly, Injustice-Oriented Assumptions was found to be related to level of stress in prison. It might be because, these individuals might be more hypervigilant to perceive the negative events during imprisonment and they might have a greater tendency to perceive the institutions associated with justice (e.g., prison service, court) as unfair (Dalbert, 2009). Criterion validity findings further supported the positive relationship between Injustice-Oriented Assumptions and precontemplation, belief in chance, insignificance of struggle, belief in an unfair world, and level of stress in prison.

In terms of Cold-Heartedness, the concurrent validity analyses did not provide any significant associations with the demographic variables. However, cold-heartedness was found to be negatively associated with agreeableness and positively associated with internal locus of control strategies. Furthermore, cold-heartedness was observed to be either negatively associated with or unrelated to other assumptions and defensive strategies, indicating that although it contributes

positively to criminality, cold-heartedness has a different mechanism as compared to other offence-supportive assumptions and defensive strategies. It is further recommended in the literature that, internal locus of control might be associated with avoidance from or repression of emotions (O'Leary et al., 1975). Hence, it is also possible to suggest that, gaining a sense of control might motivate offenders for desisting from criminality (Maruna, 2001), unless they have a high level of cold-heartedness. Besides, Furnham (2009) noted that, internal locus of control might occasionally be associated with a rugged individualism rather than being altruistic. In parallel with these suggestions, cold-heartedness was found to be negatively associated with contemplation and action, indicating that cold-heartedness is a demotivating factor for engaging in behavior change, possibly because of its negative association with cons of offending. Thus, participants with cold-heartedness might have difficulty in acknowledging the negative aspects of offending, for instance how offending gave harm to themselves or to the significant people around them. Criterion validity findings further supported the negative relationship between cold-heartedness and contemplation, action, agreeableness, and internal locus of control. Besides, participants with high levels of pros of offending and low levels of conscientiousness were observed to report more cold-heartedness, indicating that these factors might be signaling a more rigid, psychopathic attitude.

In terms of the Defensive Strategies Scale, the principle components analysis generally provided good psychometric properties. The internal consistency coefficients were relatively low, but within the acceptable range. Regarding Externalizing and Trivializing Strategies, the concurrent validity analyses revealed that the dimension was basically associated with alcohol usage problems, substance use, experience of violence in the family, history of living in the street, and history of non-violent crime. These were expected relations since Externalizing and Trivializing Strategies generally imply attributing the reason or negative consequences of offending to intoxication or having had a tough life. It is also possible that especially trivializing the negative consequences might have been learned and normalized through aforementioned experiences. In addition, externalizing and trivializing strategies were found to be related to the variables that were previously reported to be associated with power-oriented assumptions (i.e.,

neuroticism, negative valence, dimensions of external locus of control, negative affect, emotion-focused coping, precontemplation, maintenance, pros of offending, and self-esteem, all in the same directions). This might be because people with power-oriented assumptions generally engage in externalizing and trivializing strategies in order to make causal attributions for negative consequences, otherwise they would encounter with the notion that they were unable to control and prevent these negative consequences. As different from power-oriented assumptions, externalizing and trivializing strategies were found to be associated with fatalism. This finding is especially interesting taking into account that fatalism was also associated with the self-victimization strategies, indicating that the offenders might be utilizing from fatalistic coping strategies in order to deal with the negative consequences of criminality (Maruna, 2001). Criterion validity findings generally supported the aforementioned associations.

Lastly, in terms of the Self-victimization strategies, the concurrent validity analyses revealed that the dimension was basically revealed similar associations with that of Externalizing and Trivializing Strategies (i.e., neuroticism, all dimensions of external locus of control, negative affect, emotion focused coping, precontemplation, maintenance, and pros of offending). Taking into account that these strategies have a defensive function, it is reasonable to assume that both strategies might be reflective of the “defensive externality” (Rotter, 1975) which is generally prevalent in view of negative consequences and outcome anxiety (Furnham, 2009). The positive relationship between the Self-victimization strategies and positive affect (along with negative affect) further indicates an anxiety state (Gençöz, 2002). Therefore, therapeutic strategies aiming at revealing the anxiety and the negative affect (e.g., dramatic relief, Prochaska & Norcross, 2003) that lead to defensive strategies might be useful for promoting motivation to change. Being different from Externalizing and Trivializing Strategies, Self-victimization strategies was found to be related to level of stress in prison, indicating that participants, who justified their criminal behavior via stating that they were victimized, experienced more stress in prison. Lastly, self-esteem tended to be positively associated with the Self-victimization strategies. Taking into account the negative association between self-esteem and

Externalizing and Trivializing Strategies, the direction of self-esteem might be differentiating these two strategies.

Criterion validity findings further supported the aforementioned associations. Besides, Self-victimization strategies was found to differentiate low, medium, and high levels of precontemplation, general external locus of control, and insignificance of struggle. This finding might reflect that participants who engage in Self-victimization strategies might have a belief that their victimization experience was out of their control and therefore they don't have any problems to change. Accordingly, self and environmental re-evaluation strategies (Prochaska & Norcross, 2003) might be useful for these individuals to gain awareness about their victimization experiences.

2.1.5.2. Psychometric Properties of Stages of Change Scale for Criminals

The principle components analysis as well as the reliability analyses generally revealed good psychometric properties for the Stages of Change for Criminals Scale. The internal consistency coefficient for Precontemplation was relatively low, but within the acceptable range. As noted before, the instruction of the scale indicated that “the problem to be changed” referred to any behavior that contributed to “offending”. Although the instruction covered all of the dimensions, it is possible that the items of Precontemplation were affected mostly from the rather complex nature of the instruction. Therefore, participants might have had difficulty in figuring out which behaviors were contributing to their offending, they might have believed that they did not need to be changed, yet they might have thought that they needed some help for the events that were out of their control but led to their offending.

In terms of Precontemplation, the concurrent validity analyses revealed that the dimension was basically associated with all dimension of external locus of control, indicating that participants high in Precontemplation tended to attribute the negative consequences of offending to external events. Besides, this finding implies that gaining a sense of control might contribute positively to the motivation to change. Precontemplation was also found to be associated with emotion focused coping and both of the defensive strategies, indicating that participants in this stage might have difficulty in effectively coping with the negative consequences of offending, and possibly with the feeling of diminished self-worth. Therefore, an initial attempt to help these offenders to reveal the negative emotions associated with the diminished self-worth and to effectively cope with the negative consequences of offending might be a useful therapeutic strategy. The relation between Precontemplation and both Power-Oriented Assumptions and Injustice-Oriented Assumptions also supports that diminished self-worth might be intervening with the process. These assumptions (as well as associated core beliefs) might be active during Precontemplation Stage, making it more difficult for the participants to engage in effective means of coping and demotivating them for change. Criterion validity findings generally supported the aforementioned associations. Besides, Precontemplation was observed to differentiate between low, medium, and high levels of insignificance of struggle, indicating that this stage of change might be

basically associated with a general feeling of helplessness and hopelessness. Therefore, building a sense of hope via environmental re-evaluation strategies which might promote some meaning in change might be useful during this process.

Regarding the contemplation and action stages, the concurrent validity analyses yielded that these two stages of change shared some of the factors in common. For instance, they were both associated with conscientiousness, indicating that a high level of conscientiousness makes it easier for the participants to be motivated for change and to engage in some action towards change. This is in line with the literature claiming that increased responsibility is a critical factor for offenders to desist (Farrall, 2011). Unexpectedly, however, both stages were observed to be positively associated with external locus of control and fatalism, and negatively associated with internal locus of control. Furthermore, they were both negatively related to cold-heartedness. Taking into account the positive relationship between internal locus of control and cold-heartedness, it is possible to suggest that gaining a sense of control generally motivates offenders for desisting from criminality (Maruna, 2001), unless they have a high level of cold-heartedness. However, an important caveat should be kept in mind that, a sense of internal control over the criminal behavior might be threatening for self-worth, which should be handled in advance during the therapeutic interventions in these stages. In fact, the positive relationship between both contemplation and action stages and fatalism might be reflecting a fatalistic coping strategy to deal with the negative consequences of offending. Contemplation and Action were further found to be associated with positive affect and all dimensions of coping (i.e., problem-focused, emotion-focused, and indirect), indicating that having some motivation for change leads offenders to utilize from all means of coping. Therefore, in accordance with the self and environmental re-evaluation strategies, it might be helpful for the participants to learn problem-focused strategies for the controllable events, emotion-focused strategies for the uncontrollable events, and utilize from social support (Göral, Kesimci, & Gençöz, 2006). Besides, enhancing positive affect might be a useful strategy for promoting motivation to change. Additionally, cons of offending provided a negative relationship with contemplation, whereas it tended to be positively associated with action, indicating that some positive changes occurs in

cons of offending in between the contemplation and action stages. This is an expected finding taking into account that contemplation stage is rather associated with a decrease in pros of offending and action stage is when the cons of offending is expected to outweigh the pros of offending (Velicer et al., 1985). Lastly, insignificance of struggle was found to be positively associated with the Action stage. This was an unexpected finding, taking into account that engaging in some action for change boosts positive affect and a sense of hope (Fitzpatrick & Stalikas, 2008). However, because of imprisonment, offenders might not experience the immediate positive consequences of their struggle to change. Therefore, practitioners should take into account the impacts of imprisonment on the change process. Criterion validity findings generally supported the aforementioned associations, with a further notice on the positive relationship between extraversion and action. Thus, extraversion might be a positive factor in motivating the participants to sustain their motivation to change.

In terms of maintenance, the concurrent validity analyses revealed that the dimension was negatively associated with education level and positively associated with history of living in the street and self-harming behavior. Besides, it was observed to be related to all dimensions of external locus of control and all defensive strategies. Maintenance is generally referred to be as a positive stage, when the individuals try to sustain the changes that they have made (Prochaska & Norcross, 2003). However, within the prison context, maintenance seems to imply a state of hopelessness and a set-back towards previous stages. Risk factors such as low level of education, history of living in the street and self-harming behavior might have further contributed to the feelings of hopelessness. Therefore, participants in this stage might be thinking that they have done everything to change, yet they did not experience any positive outcome. As noted before, it is difficult for the offenders to observe the immediate positive outcomes of their change process. Moreover, outcomes of the change process is difficult to observe in such a controlled setting like prison, especially when one considers the social context associated with criminality (Lebel, Burnett, Maruna, & Bushway, 2008). Yet, it is important to figure out the differences between precontemplation and maintenance stages for offenders. For instance, as different from precontemplation, maintenance was found to be

associated with both positive and negative affect, indicating a state of anxiety rather than a state of helplessness (Gençöz, 2002). Therefore, dealing with the anxious state and building hope might be useful strategies for sustaining the change process. Moreover, the anxious state might be associated with an anxiety to draw back. Thus, relapse prevention strategies as well as educating the offenders about the spiral process of change (e.g. that relapse is inevitable and in fact useful for more prolonged periods of desistance, Prochaska & Norcross, 2003) might be useful therapeutic strategies during this process. Another difference between precontemplation and maintenance was the operation of assumptions. Specifically, maintenance was only found to be associated with Power-Oriented Assumptions, which extinguished in the criterion validity analyses. Therefore, it is possible that assumptions mainly operate during precontemplation. The power-oriented assumptions might be re-activated, yet it does not characterize the maintenance stage.

2.1.5.3. Psychometric Properties of Decisional Balance Scale for Criminals

The principle components analysis as well as the reliability analyses generally revealed good psychometric properties for the Decisional Balance Scale for Criminals. Regarding pros of offending, the concurrent validity analyses basically revealed associations with problems in alcohol usage, substance use, history of living in the street, and history of non-violent and violent crime. These findings might indicate that a criminal and/or deviant life style leads the person to perceive offending as more advantageous. Furthermore, pros of offending was found to be negatively related to extraversion, agreeableness, and conscientiousness, whereas it was observed to be positively related to neuroticism and negative valence. Therefore, personality traits might have a bolstering role in perception of offending as more advantageous. It should be noted that, the dimension was measured in the prison environment, when the negative consequences of offending is experienced the most. Thus, participants generally tend to report more cons of offending in the prison environment (see Table 2.5.), indicating that their perception of the advantages and disadvantages of offending must be different during the initiation of crime. However, presentation of pros of offending despite the effects of imprisonment might be reflective of a more rigid pattern of criminality. Pros of offending was also found to be associated with offence-supportive assumptions (except cold-heartedness) and

offence-supportive defensive strategies, implying that the assumptions (and associated core-beliefs) might be more salient for the participants high in pros of offending and they might also have a greater need to defend themselves. Besides, pros of offending was observed to be positively associated with insignificance of struggle and belief in an unfair world, which might further support the operation of assumptions for these participants. Finally, pros of offending was found to be positively associated with negative affect and negatively associated with problem-focused coping, indicating that participants who perceive offending as advantageous despite they experienced the negative consequences, might have more difficulty in coping with their negative emotions. It's also possible that these participants might have pursued some goals via antisocial means. Therefore, they might be experiencing that they have failed in achieving their goals, yet they might not know about other (more pro-social) means of achieving their goals. Therefore, elaborating more on pro-social means of achieving these goals in accordance with raising awareness about the cons of offending might be a useful strategy for these participants. It's further suggested in the literature that, for a person to be motivated for change, realizing the negative aspects of a problem behavior would not be adequate enough per se, but the person should also acknowledge that the problem behavior is not an effective strategy to achieve certain goals (Levesque, 1999). Criterion validity findings generally supported the aforementioned associations.

Velicer and colleagues (1985) suggested that pros and cons are not merely opposite concepts and they are associated with different variables. Supporting this suggestion, the findings of the present study revealed that the only commonality between pros and cons of offending were conscientiousness and negative valence, yielding associations in the opposite directions for pros and cons of offending. Otherwise, regarding cons of offending, the concurrent validity analyses basically revealed negative associations with internal locus of control and cold-heartedness. As indicated before, imprisonment is the context when offenders experience the negative consequences of offending the most. However, as discussed previously, cold-heartedness (and associated internal locus of control) might prevent people from realizing these negative consequences, notably the ones that had a negative impact on significant others. Cons of offending was also negatively associated with

contemplation. As stated before, contemplation stage is rather associated with a decrease in pros of offending and cons of offending is expected to increase during subsequent stages of change (Velicer et al., 1985). This assumption is supported by the criterion validity analyses, indicating a positive association between cons of offending and both the stages of action and maintenance.

2.1.5.4. Positive and Negative Attributions Related to Offending

As it was the case for the decisional balance scale, participants reported relatively less positive attributions and more negative attributions for offending. As indicated before, this is possibly because of imprisonment, when the negative consequences of offending is experienced the most. Regarding the positive attributions, “financial gains” was the most frequently reported, indicating that offending for financial gains might be still viewed as acceptable despite the imprisonment experience. Besides, it was found to be associated with a variety of factors; therefore it might be a shared experience underlying most of the motivations for offending. Yet, it should be kept in mind that financial motivations might be related to extremely low socio-economic conditions, a goal to be self-sufficient within a short period of time, protection of the family members, gaining high amounts of money in a short period of time, and/or buying illegal substance. It’s also possible that financial gains as a pros of offending might be learned during various social interactions (for instance, previous criminal experiences). Findings of the present study further suggested that, “financial gains” was associated with power-oriented assumptions, indicating that gaining money is also a means to gain power and status (Barry, 2006). Furthermore, it was found to be related to the level of stress in prison and negative affect, indicating that the financial detriments experienced during imprisonment might be more salient for the participants who offended because of economic reasons.

“To be seen as tough” was another positive attribution that was found to be associated with a variety of factors. Similarly, it might have been learned during various social interactions (e.g., during history of violence, experience of living in the street, previous criminal experiences, and/or offending in the young age). Besides, it was found to be related to history of suicide and self-harming behavior. Therefore, engaging in criminality in order to be “seen as tough” might be indicative

of another underlying psychopathology. It should be further investigated whether there is a commonality between motivation to harm one's self and motivation to offend. Being seen as tough was also found to be negatively associated with self-esteem and positively associated with power-oriented assumptions as well as with defensive strategies, indicating that motivations related to power might be highly salient to the offenders and might have been normalized.

Being respected and being accepted were other positive attributions that found to be related to power-oriented assumptions. Therefore, power-oriented motivations for offending might include economic power (i.e., financial gains), physical power (e.g., to be seen as tough), and social power (e.g., being respected and accepted). On the other hand, "to protect myself" was found to be unrelated to power-oriented assumptions, indicating that motivations that are related to security-oriented assumptions might convey different mechanisms. In fact "to protect myself" was found to be negatively associated with extraversion and positively associated with neuroticism and negative valence. It should be noted that the criminal thinking scale includes items related to power-oriented and justice-oriented assumptions, but lacks information regarding security-oriented assumption. Therefore, in the further studies, security-oriented assumptions should be taken into account as well.

The scope of the present study was limited with general offending behavior; therefore participants from various criminal backgrounds were included in the study. Comparisons regarding the type of offence was made taking into account the "non-violent, violent, sexual, and illegal substance related crimes" distinction. Within this framework, it was not possible to figure out specific motivations for each offence category. However, it's possible to indicate that history of non-violent crime was associated with most of the power-related positive attributions. History of violent crime was basically found to be associated with "to protect myself". However, history of illegal substance related offences was also related to "to protect myself" aside from financial gains. Lastly, history of sexual offence did not provide any relation with the inclined positive attributions, with an only exception that it was found to be negatively associated with financial gains.

Regarding negative attributions, most of the items (i.e., being sentenced, being insulted, rejection from the community, and degradation) were found to be

associated with unemployment. This was a rather unexpected finding taking into account that in practice offenders commonly report that they fear of being unemployed after release, because of being stigmatized. However, being unemployed before imprisonment was not found to be associated with being stigmatized. This is possibly because participants who were unemployed before imprisonment might be experiencing the negative consequences of offending more frequently. Therefore, employment might be serving as a protective factor for re-building the losses after release. Another interesting finding was related to the number of siblings, which was observed to be associated with “being insulted”, “rejection from the community”, and “degradation”. Besides, degradation was also found to be related to the order of birth, with participants having older siblings fearing more from being degraded than their counterparts. Putting it together, these findings possibly suggest that family ties might be a facilitating factor in anticipation of the negative consequences of offending behavior. However, the nature of these family ties and its contribution to the positive and negative perception of offending should be further investigated. Lastly, in terms of the type of offences, history of sexual offence was found to be particularly associated with being insulted. On the other hand, participants who had a history of violent offence reported “being stigmatized”, “rejection from the community”, and “degradation” less frequently. This might be because of relatively longer sentences that violent offenders receive. Therefore, they might not be anticipating any consequences that will affect their life after release.

2.2. STUDY I.B: HYPOTHESIS TESTING

2.2.1. Introduction

It's controversial in the literature whether defensive strategies are adaptive or maladaptive (Vincze, Roth, & Dégi, 2012). In general, there seems to be a consensus relating that defensive strategies serve to maintain existing schemas and negative attitudes (Vincze et al., 2012; Young et al., 2003). However, the self-affirmative function of defensive strategies which are utilized to relieve dissonance is also widely accepted (Holland et al., 2002; O'Leary, Donovan, & Hague, 1975). In parallel with the suggestions of Maruna and Mann (2006), defensive strategies that stem from criminal thinking, though offence-supportive, might have important functions for relieving distress. Therefore, understanding the associates and roles of defensive strategies will enhance our understanding about the obstacles that are faced during intervention programs. Within this respect, locus of control is assumed to provide a great deal of information, taking into account its close association with defensive strategies (Furnham, 2009; O'Leary et al., 1975; Žitný & Halama, 2011).

2.2.2. Aim of the Study

The purpose of the present study is to investigate associated factors with criminal thinking (i.e., assumptions and defensive strategies), decisional balance (i.e., pros and cons of offending), and stages of change (i.e., precontemplation, contemplation, action, and maintenance). It is also aimed to investigate the mediator role of locus of control between offence-supportive assumptions and motivation to change. The final purpose of the present study is to depict the moderator role of defensive strategies, both in terms of the relationship between assumptions and motivation to change and regarding the relationship between decisional balance and motivation to change.

2.2.3. Method

The method of the present study (i.e., participants, measures, and procedure) is the same as that of Study I.A. (For the method, see Section 2.1.2).

2.2.4. Results

In order to investigate the associated factors with criminal thinking-assumptions (i.e., EN+PO, CR, CH), criminal thinking-defensive strategies (i.e., JU, PI), decisional balance (i.e., pros and cons of offending), and motivation to change

(i.e., precontemplation, contemplation, action, and maintenance) a series of hierarchical regression analyses were employed with the stepwise method. In the first step, critical demographic variables (those having a zero-order correlation coefficient of at least .20 with the dependent variable) were entered in order to control for the variance accounted for by these control variables. Secondly, personality measures (i.e., basic personality traits) were entered. Dimensions of locus of control were entered in the third step (i.e., internal locus of control, belief in chance, insignificance of struggle, fatalism, and belief in an unfair world). Self-esteem was entered in the next step. Afterwards, cognitive variables were entered (i.e., decisional balance and/or beliefs). Affective variables (i.e., positive affect, negative affect, level of stress in the prison) were entered in the next step. Finally, coping variables (i.e., ways of coping) and defensive strategies (i.e., JU, PI) were entered in the last step.

In order to further investigate the mediator role of locus of control in the development of defensive strategies, mediated regression equations were formulated where CTS-Assumptions served as independent variables, dimensions of locus of control (i.e., internal locus of control, belief in chance, insignificance of struggle, fatalism, and belief in an unfair world) served as mediator variables, and CTS-Defensive Strategies were dependent variables. Besides, a similar mediated regression equation was formulated where factors of decisional balance (i.e., pros and cons of offending) were independent variables, dimensions of locus of control (i.e., internal locus of control, belief in chance, insignificance of struggle, fatalism, and belief in an unfair world) served as mediator variables, and CTS-Defensive Strategies were dependent variables.

Furthermore, the moderator role of defensive strategies in explaining motivation to change were investigated through a series of moderated regression analyses, where factors of CTS-Assumptions served as independent variables, factors of defensive strategies served as moderator variables, and dimensions of stages of change (i.e., precontemplation, contemplation, action, and maintenance) served as dependent variables. Finally, a similar moderated regression equation was formulated, where factors of decisional balance (i.e., pros and cons of offending) were independent variables, factors of defensive strategies served as moderator

variables, and dimensions of stages of change (i.e., precontemplation, contemplation, action, and maintenance) served as dependent variables.

2.2.4.1. Factors Associated with Criminal Thinking-Assumptions

Among the control measures, power oriented assumptions (i.e., EN+PO) was found to be significantly associated with age, substance use, experience of living in the street, age at first offence, and history of non-violent crime (see Section 2.1.4.2.3.1). As can be followed from Table 2.35.A, among the control variables initially history of non-violent crime entered into the equation, and explained 9 % of the variance, $F(1, 153) = 15.87, p < .001$. A significant positive association was obtained between history of non-violent crime and power oriented assumptions ($\beta = .31, \beta = .31, t[153] = 3.98, p < .001$), indicating that participants with history of non-violent crime reported more power oriented assumptions. Following history of non-violent crime, age at first offence entered into the equation and the explained variance increased to 14%, $F_{\text{change}}(1, 152) = 8.66, p < .01$. A significant negative association was observed between age at first offence and power oriented assumptions ($\beta = -.22, \beta = -.23, t[152] = -2.94, p < .01$), indicating that after controlling for the variance accounted for by history of non-violent crime, participants who conducted their first offences at a younger age reported more power oriented assumptions. Among the personality measures, negative valence entered into the equation, and the explained variance increased to 22%, $F_{\text{change}}(1, 151) = 14.24, p < .001$. A significant positive association was observed between negative valence and power oriented assumptions ($\beta = .27, \beta = .28, t[151] = 3.77, p < .001$), indicating that after controlling for the variance accounted for by history of non-violent crime and age at first offence, participants with higher levels of negative valence tended to report more power oriented assumptions. Besides, neuroticism entered into the equation, and the explained variance increased to 24%, $F_{\text{change}}(1, 150) = 5.41, p < .05$. A significant positive association was observed between neuroticism and power oriented assumptions ($\beta = .17, \beta = .18, t[150] = 2.33, p < .05$), indicating that after controlling for the variance accounted for by history of non-violent crime, age at first offence, and negative valence, participants with higher levels of neuroticism tended to report more power oriented assumptions. In terms of locus of control, only insignificance of struggle entered into the equation, and the

explained variance increased to 32%, $F_{\text{change}}(1, 149) = 17.09, p < .001$. A significant positive association was observed between insignificance of struggle and power oriented assumptions ($\beta = .28, \beta = .30, t[149] = 4.13, p < .001$), indicating that after controlling for the variance accounted for by history of non-violent crime, age at first offence, negative valence, and neuroticism, participants with higher levels of insignificance of struggle tended to report more power oriented assumptions. Finally, pros of offending entered into the equation, and the explained variance increased to 45%, $F_{\text{change}}(1, 148) = 35.76, p < .001$. A significant positive association was observed between pros of offending and power oriented assumptions ($\beta = .36, \beta = .40, t[148] = 5.98, p < .001$), indicating that after controlling for the variance accounted for by history of non-violent crime, age at first offence, negative valence, neuroticism, and insignificance of struggle, participants with higher levels of pros of offending tended to report more power oriented assumptions. The stepwise regression equation did not provide significant associations with self-esteem, affective measures, and coping measures in terms of power oriented assumptions.

Injustice-Oriented Assumptions (i.e., CR) was found to be associated with age of beginning to work and substance use (see Section 2.1.4.2.3.1), therefore these variables were entered in the first step. As can be followed from Table 2.35.B, among the control variables initially age of beginning to work entered into the equation, and explained 6% of the variance, $F(1, 166) = 9.76, p < .01$. A significant negative association was obtained between age of beginning to work and the Injustice-Oriented Assumptions ($\beta = -.24, \beta = -.24, t[166] = -3.12, p < .01$), indicating that participants who began working at a younger age reported more Injustice-Oriented Assumptions. Following age of beginning to work, substance use entered into the equation and the explained variance increased to 8%, $F_{\text{change}}(1, 165) = 4.74, p < .05$. A significant positive association was observed between substance use and the Injustice-Oriented Assumptions ($\beta = .16, \beta = .17, t[165] = 2.18, p < .05$), indicating that after controlling for the variance accounted for by age of beginning to work, participants who reported substance use also reported more Injustice-Oriented Assumptions. In terms of locus of control, only belief in an unfair world entered into the equation, and the explained variance increased to 14%, $F_{\text{change}}(1, 164) = 10.32, p < .01$. A significant positive association was observed

between belief in an unfair world and the Injustice-Oriented Assumptions ($\beta = .23$, $\beta = .24$, $t[164] = 3.21$, $p < .01$), indicating that after controlling for the variance accounted for by age of beginning to work and substance use, participants with higher levels of belief in an unfair world tended to report more Injustice-Oriented Assumptions. Furthermore, level of stress in prison entered into the equation, and the explained variance increased to 17%, $F_{\text{change}}(1, 163) = 6.00$, $p < .05$. A significant positive association was observed between level of stress in prison and the Injustice-Oriented Assumptions ($\beta = .18$, $\beta = .19$, $t[163] = 2.45$, $p < .05$), indicating that after controlling for the variance accounted for by age of beginning to work, substance use, and belief in an unfair world, participants with higher levels of stress in prison tended to report more Injustice-Oriented Assumptions. Finally, indirect coping entered into the equation, and the explained variance increased to 19%, $F_{\text{change}}(1, 162) = 5.46$, $p < .05$. A significant negative association was observed between indirect coping and the Injustice-Oriented Assumptions ($\beta = -.17$, $\beta = -.17$, $t[162] = -2.34$, $p < .05$), indicating that after controlling for the variance accounted for by age of beginning to work, substance use, belief in an unfair world, and level of stress in prison, participants with lower levels of indirect coping tended to report more Injustice-Oriented Assumptions. The stepwise regression equation did not provide significant associations with basic personality traits, self-esteem, and decisional balance measures in terms of the Injustice-Oriented Assumptions.

Cold-heartedness (CH) was not found to be associated with any of the demographic variables (see Section 2.1.4.2.3.1), therefore personality measures were entered in the first step. As can be followed from Table 2.35.C, initially agreeableness entered into the equation, and explained 7% of the variance, $F(1, 195) = 13.55$, $p < .001$. A significant negative association was obtained between agreeableness and cold-heartedness ($\beta = -.26$, $\beta = -.26$, $t[195] = -3.68$, $p < .001$), indicating that participants with lower levels of agreeableness reported more cold-heartedness. Following agreeableness, conscientiousness entered into the equation and the explained variance increased to 9%, $F_{\text{change}}(1, 194) = 6.30$, $p < .01$. A significant negative association was observed between conscientiousness and cold-heartedness ($\beta = -.17$, $\beta = -.18$, $t[194] = -2.51$, $p < .01$), indicating that after controlling for the variance accounted for by agreeableness, participants with lower

levels of conscientiousness reported more cold-heartedness. The stepwise regression equation did not provide significant associations with locus of control, self-esteem, decisional balance, affective measures, and cognitive measures in terms of cold-heartedness.

Table 2.35. Factors Associated with Criminal Thinking-Assumptions

IV	df	Fchange	β	t	pr	R ²
A.EN+PO						
1.Control Measures						
History of Non-Violent Crime	1, 153	15.87***	.31	3.98	.31	.09
Age at first offence	1, 152	8.66**	-.23	-2.94	-.22	.14
2.Personality Measures						
Negative Valence	1, 151	14.24***	.28	3.77	.27	.22
Neuroticism	1, 150	5.41*	.18	2.33	.17	.24
3.Locus of Control						
Insignificance of Struggle	1, 149	17.09***	.30	4.13	.28	.32
4.Self-Esteem						
5.Decisional Balance						
Pros of Offending	1, 148	35.76***	.40	5.98	.36	.45
6.Affective Measures						
7.Coping Measures						
B.CR						
1.Control Measures						
Age of Beginning to Work	1, 166	9.76**	-.24	-3.12	-.24	.06
Substance use	1, 165	4.74*	.17	2.18	.16	.08
2.Personality Measures						
3.Locus of Control						
Belief in an Unfair World	1, 164	10.32**	.24	3.21	.23	.14
4.Self-Esteem						
5.Decisional Balance						
6.Affective Measures						
Level of Stress in Prison	1, 163	6.00*	.19	2.45	.18	.17
7.Coping Measures						
Indirect Coping	1, 162	5.46*	-.17	-2.34	-.17	.19
C.CH						
1.Control Measures						
2.Personality Measures						
Agreeableness	1, 195	13.55***	-.26	-3.68	-.26	.07
Conscientiousness	1, 194	6.30**	-.18	-2.51	-.17	.09
3.Locus of Control						
4.Self-Esteem						
5.Decisional Balance						
6.Affective Measures						
7.Coping Measures						

** $p < .01$, *** $p < .001$.

Note. EN+PO = Power oriented assumptions, CR = Injustice-Oriented Assumptions, CH = Cold-Heartedness.

2.2.4.2. Factors Associated with Criminal Thinking-Defensive Strategies

Externalizing and trivializing strategies (i.e., JU) was found to be associated with alcohol usage problems, substance use, experience of violence in the family, history of living in the street, and history of non-violent crime (see Section 2.1.4.2.3.1), therefore these variables were entered in the first step. As can be followed from Table 2.36.A, among the control variables initially history of living in the street entered into the equation, and explained 11% of the variance, $F(1, 174) = 21.46, p < .001$. A significant positive association was obtained between history of living in the street and externalizing and trivializing strategies ($\beta = .33, t[174] = 4.63, p < .001$), indicating that participants with a history of living in the street reported more externalizing and trivializing strategies. Following history of living in the street, substance use entered into the equation and the explained variance increased to 13%, $F_{\text{change}}(1, 173) = 4.08, p < .05$. A significant positive association was observed between substance use and externalizing and trivializing strategies ($\beta = .16, t[173] = 2.02, p < .05$), indicating that after controlling for the variance accounted for by history of living in the street, participants who reported substance use also reported more externalizing and trivializing strategies. Regarding basic personality traits, only negative valence entered into the equation, and the explained variance increased to 20%, $F_{\text{change}}(1, 172) = 15.14, p < .001$. A significant positive association was observed between negative valence and externalizing and trivializing strategies ($\beta = .27, t[172] = 3.89, p < .001$), indicating that after controlling for the variance accounted for by history of living in the street and substance use, participants with higher levels of negative valence tended to report more externalizing and trivializing strategies. In terms of locus of control, only belief in an unfair world entered into the equation, and the explained variance increased to 25%, $F_{\text{change}}(1, 171) = 12.33, p < .001$. A significant positive association was observed between belief in an unfair world and externalizing and trivializing strategies ($\beta = .24, t[171] = 3.51, p < .001$), indicating that after controlling for the variance accounted for by history of living in the street, substance use, and negative valence, participants with higher levels of belief in an unfair world tended to report more externalizing and trivializing strategies. Finally, power-oriented assumptions entered into the equation, and the explained variance increased

to 48%, $F_{\text{change}}(1, 170) = 71.29, p < .001$. A significant positive association was observed between power-oriented assumptions and externalizing and trivializing strategies ($\beta = .47, \beta = .54, t[170] = 8.44, p < .001$), indicating that after controlling for the variance accounted for by history of living in the street, substance use, negative valence, and belief in an unfair world, participants with higher levels of power-oriented assumptions tended to report more externalizing and trivializing strategies. The stepwise regression equation did not provide significant associations with self-esteem, decisional balance, affective measures, and coping measures in terms of externalizing and trivializing strategies.

Self-victimization strategies (i.e., PI) was not found to be associated with any of the demographic variables (see Section 2.1.4.2.3.1), therefore personality measures were entered in the first step. As can be followed from Table 2.36.B, initially neuroticism entered into the equation, and explained 4% of the variance, $F(1, 195) = 8.87, p < .01$. A significant positive association was obtained between neuroticism and Self-victimization strategies ($\beta = .21, \beta = .21, t[195] = 2.98, p < .01$), indicating that participants with higher levels of neuroticism reported more Self-victimization strategies. Following neuroticism, openness to experience entered into the equation and the explained variance increased to 7%, $F_{\text{change}}(1, 194) = 5.75, p < .05$. A significant positive association was observed between openness to experience and Self-victimization strategies ($\beta = .17, \beta = .17, t[194] = 2.40, p < .05$), indicating that after controlling for the variance accounted for by neuroticism, participants with higher levels of openness to experience reported more Self-victimization strategies. In terms of locus of control, only insignificance of struggle entered into the equation, and the explained variance increased to 19%, $F_{\text{change}}(1, 193) = 27.44, p < .001$. A significant positive association was observed between insignificance of struggle and Self-victimization strategies ($\beta = .34, \beta = .35, t[193] = 5.24, p < .001$), indicating that after controlling for the variance accounted for by neuroticism and openness to experience, participants with higher levels of insignificance of struggle tended to report more Self-victimization strategies. In addition, self-esteem entered into the equation, and the explained variance increased to 21%, $F_{\text{change}}(1, 192) = 5.54, p < .05$. A significant positive association was observed between self-esteem and Self-victimization strategies ($\beta = .15, \beta = .17,$

$t[192] = 2.35, p < .05$), indicating that after controlling for the variance accounted for by neuroticism, openness to experience, and insignificance of struggle, participants with higher self-esteem tended to report more Self-victimization strategies .

Regarding CTS-Assumptions, power-oriented assumptions entered into the equation, and the explained variance increased to 45%, $F_{\text{change}}(1, 191) = 84.37, p < .001$. A significant positive association was observed between power-oriented assumptions and Self-victimization strategies ($\beta = .49, \beta = .51, t[191] = 9.19, p < .001$), indicating that after controlling for the variance accounted for by neuroticism, openness to experience, insignificance of struggle, and self-esteem, participants with higher levels of power-oriented assumptions tended to report more Self-victimization strategies . Moreover, Injustice-Oriented Assumptions entered into the equation, and the explained variance increased to 53%, $F_{\text{change}}(1, 190) = 29.18, p < .001$. A significant positive association was observed between the Injustice-Oriented Assumptions and Self-victimization strategies ($\beta = .27, \beta = .32, t[190] = 5.40, p < .001$), indicating that after controlling for the variance accounted for by neuroticism, openness to experience, insignificance of struggle, self-esteem, and power-oriented assumptions, participants with higher levels of the Injustice-Oriented Assumptions tended to report more Self-victimization strategies . Furthermore, cold-heartedness entered into the equation, and the explained variance increased to 55%, $F_{\text{change}}(1, 189) = 9.13, p < .01$. A significant negative association was observed between cold-heartedness and Self-victimization strategies ($\beta = -.15, \beta = -.15, t[189] = 3.02, p < .01$), indicating that after controlling for the variance accounted for by neuroticism, openness to experience, insignificance of struggle, self-esteem, power-oriented assumptions, and the Injustice-Oriented Assumptions, participants with higher levels of cold-heartedness tended to report less Self-victimization strategies . Taking into account affective measures, negative affect entered into the equation, and the explained variance increased to 56%, $F_{\text{change}}(1, 188) = 5.53, p < .05$. A significant positive association was observed between negative affect and Self-victimization strategies ($\beta = .11, \beta = .14, t[188] = 2.35, p < .05$), indicating that after controlling for the variance accounted for by neuroticism, openness to experience, insignificance of struggle, self-esteem, power-oriented assumptions, Injustice-Oriented Assumptions, and cold-heartedness, participants with higher levels of negative affect

tended to report more Self-victimization strategies . Finally, emotion-focused coping entered into the equation, and the explained variance increased to 59%, $F_{\text{change}}(1, 187) = 13.05, p < .001$. A significant positive association was observed between emotion-focused coping and Self-victimization strategies ($\beta = .17, \beta = .21, t[187] = 3.61, p < .001$), indicating that after controlling for the variance accounted for by neuroticism, openness to experience, insignificance of struggle, self-esteem, power-oriented assumptions, Injustice-Oriented Assumptions, cold-heartedness, and negative affect, participants with higher levels of emotion-focused coping tended to report more Self-victimization strategies . The stepwise regression equation did not provide significant associations with decisional balance in terms of Self-victimization strategies.

Table 2.36. Factors Associated with Criminal Thinking-Defensive Strategies

IV	df	Fchange	β	t	pr	R ²
A.JU						
1.Control Measures						
History of Living in the Street	1, 174	21.46***	.33	4.63	.33	.11
Substance use	1, 173	4.08*	.16	2.02	.14	.13
2.Personality Measures						
Negative Valence	1, 172	15.14***	.27	3.89	.27	.20
3.Locus of Control						
Belief in an Unfair World	1, 171	12.33***	.24	3.51	.23	.25
4.Self-Esteem						
5.CTS-Assumptions						
Power oriented assumptions	1, 170	71.29***	.54	8.44	.47	.48
6.Decisional Balance						
7.Affective Measures						
8.Coping Measures						
B.PI						
1.Control Measures						
2.Personality Measures						
Neuroticism	1, 195	8.87**	.21	2.98	.21	.04
Openness to Experience	1, 194	5.75*	.17	2.40	.17	.07
3.Locus of Control						
Insignificance of struggle	1, 193	27.44***	.35	5.24	.34	.19
4.Self-Esteem						
5.CTS-Assumptions						
Power oriented assumptions	1, 191	84.37***	.51	9.19	.49	.45
Injustice-Oriented Assumptions	1, 190	29.18***	.32	5.40	.27	.53
Cold-Heartedness	1, 189	9.13**	-.15	-3.02	-.15	.55
6.Decisional Balance						
7.Affective Measures						
Negative Affect	1, 188	5.53*	.14	2.35	.11	.56
8.Coping Measures						
Emotion-Focused Coping	1, 187	13.05***	.21	3.61	.17	.59

** $p < .01$, *** $p < .001$.

Note. JU = Externalizing and trivializing strategies, PI = Self-victimization strategies.

2.2.4.3. Factors Associated with Decisional Balance

Pros of offending was found to be significantly associated with alcohol usage problems, substance use, history of living in the street, history of non-violent crime, and history of violent crime (see Section 2.1.4.4.3.1). As can be followed from Table 2.37.A, among the control variables initially living in the street entered into the equation, and explained 7% of the variance, $F(1, 174) = 13.62, p < .001$. A significant positive association was obtained between experience of living in the street and pros of offending ($\beta = .27, \beta = .27, t[174] = 3.69, p < .001$), indicating that participants with a history of living in the street reported more pros of offending. Following experience of living in the street, substance use entered into the equation, and the explained variance increased to 10%, $F_{\text{change}}(1, 173) = 4.78, p < .05$. A significant positive association was obtained between substance use and pros of offending ($\beta = .16, \beta = .17, t[173] = 2.19, p < .05$), indicating that after controlling for the variance accounted for by experience of living in the street, participants with substance use history reported more pros of offending. Among the personality measures, negative valence entered into the equation, and the explained variance increased to 19%, $F_{\text{change}}(1, 172) = 20.16, p < .001$. A significant positive association was observed between negative valence and pros of offending ($\beta = .31, \beta = .31, t[172] = 4.49, p < .001$), indicating that after controlling for the variance accounted for by experience of living in the street and substance use, participants with higher levels of negative valence tended to report more pros of offending. Besides, agreeableness entered into the equation and the explained variance increased to 22%, $F_{\text{change}}(1, 171) = 6.98, p < .01$. A significant negative association was observed between agreeableness and pros of offending ($\beta = -.18, \beta = -.18, t[171] = -2.64, p < .01$), indicating that after controlling for the variance accounted for by experience of living in the street, substance use, and negative valence, participants with lower levels of agreeableness tended to report more pros of offending. In terms of locus of control, only belief in an unfair world entered into the equation, and the explained variance increased to 25%, $F_{\text{change}}(1, 170) = 5.63, p < .05$. A significant positive association was observed between belief in an unfair world and pros of offending ($\beta = .16, \beta = .17, t[170] = 2.37, p < .05$), indicating that after controlling for the variance accounted for by experience of living in the street,

substance use, negative valence, and agreeableness, participants with higher levels of belief in an unfair world tended to report more pros of offending. Regarding CTS-Assumptions, power-oriented assumptions entered into the equation, and the explained variance increased to 36%, $F_{\text{change}}(1, 169) = 29.92, p < .001$. A significant positive association was observed between power-oriented assumptions and pros of offending ($\beta = .34, \beta = .39, t[169] = 5.47, p < .001$), indicating that after controlling for the variance accounted for by experience of living in the street, substance use, negative valence, agreeableness, and belief in an unfair world, participants with higher levels of power-oriented assumptions tended to report more pros of offending. Finally, indirect coping entered into the equation, and the explained variance increased to 39%, $F_{\text{change}}(1, 168) = 9.03, p < .01$. A significant negative association was observed between indirect coping and pros of offending ($\beta = -.18, \beta = -.19, t[168] = -3.01, p < .01$), indicating that after controlling for the variance accounted for by experience of living in the street, substance use, negative valence, agreeableness, belief in an unfair world, and power-oriented assumptions, participants who utilized less from indirect coping tended to report more pros of offending. The stepwise regression equation did not provide significant associations with self-esteem, CTS-defensive strategies, and affective measures in terms of pros of offending.

Regarding cons of offending, neither of the control measures was found to have significant association (see Section 2.1.4.4.3.1). Therefore, personality measures were entered in the first step. As can be followed from Table 2.37.B, among the personality variables initially negative valence entered into the equation, and explained 5% of the variance, $F(1, 195) = 10.14, p < .01$. A significant negative association was obtained between negative valence and cons of offending ($\beta = -.22, \beta = -.22, t[195] = -3.18, p < .01$), indicating that participants with lower level of negative valence reported more cons of offending. Moreover, neuroticism entered into the equation, and the explained variance increased to 8%, $F_{\text{change}}(1, 194) = 6.27, p < .01$. A significant positive association was obtained between neuroticism and cons of offending ($\beta = .17, \beta = .19, t[194] = 2.50, p < .01$), indicating that after controlling for the variance accounted for by negative valence, participants with higher levels of neuroticism reported more cons of offending. Besides,

conscientiousness entered into the equation, and the explained variance increased to 11%, $F_{\text{change}}(1, 193) = 6.19, p < .01$. A significant positive association was obtained between conscientiousness and cons of offending ($\beta = .17, t[193] = 2.49, p < .01$), indicating that after controlling for the variance accounted for by negative valence and neuroticism, participants with higher levels of conscientiousness reported more cons of offending. Finally, in terms of locus of control, only internal locus of control entered into the equation, and the explained variance increased to 18%, $F_{\text{change}}(1, 192) = 16.31, p < .001$. A significant negative association was observed between internal locus of control and cons of offending ($\beta = -.26, t[192] = 4.04, p < .001$), indicating that after controlling for the variance accounted for by negative valence, neuroticism, and conscientiousness, participants with lower levels of internal locus of control tended to report more cons of offending. The stepwise regression equation did not provide significant associations with self-esteem, CTS-Assumptions, CTS-defensive strategies, affective measures, and coping measures in terms of cons of offending.

Table 2.37. Factors Associated with Decisional Balance

IV	df	Fchange	β	t	pr	R ²
A.Pros of Offending						
1.Control Measures						
Living in the street	1, 174	13.62***	.27	3.69	.27	.07
Substance use	1, 173	4.78*	.17	2.19	.16	.10
2.Personality Measures						
Negative Valence	1, 172	20.16***	.31	4.49	.31	.19
Agreeableness	1, 171	6.98**	-.18	-2.64	-.18	.22
3.Locus of Control						
Belief in an Unfair World	1, 170	5.63*	.17	2.37	.16	.25
4.Self-Esteem						
5.CTS-Assumptions						
Power oriented assumptions	1, 169	29.92***	.39	5.47	.34	.36
6.Affective Measures						
-						
7.Coping Measures						
Indirect Coping	1, 168	9.03**	-.19	-3.01	-.18	.39
8.Defensive Strategies						
-						
B.Cons of Offending						
1.Control Measures						
-						
2.Personality Measures						
Negative Valence	1, 195	10.14**	-.22	-3.18	-.22	.05
Neuroticism	1, 194	6.27*	.19	2.50	.17	.08
Conscientiousness	1, 193	6.19*	.18	2.49	.17	.11
3.Locus of Control						
Internal locus of control	1, 192	16.31***	-.29	-4.04	-.26	.18
4.Self-Esteem						
5.CTS-Assumptions						
-						
6.Affective Measures						
-						
7.Coping Measures						
-						
8.Defensive Strategies						
-						

* $p < .05$, ** $p < .01$, *** $p < .001$.

2.2.4.4. Factors Associated with Motivation to Change

Regarding precontemplation, neither of the control measures was found to have significant association (see Section 2.1.4.3.3.1). Therefore, personality measures were entered in the first step. As can be followed from Table 2.38.A, personality measures did not significantly contribute to precontemplation. However, in terms of locus of control, insignificance of struggle entered into the equation, and explained 19% of the variance, $F(1, 195) = 44.81, p < .001$. A significant positive association was obtained between insignificance of struggle and precontemplation ($\beta = .43, \beta = .43, t[195] = 6.69, p < .001$), indicating that participants with a high level of insignificance of struggle reported more precontemplation. Following insignificance of struggle, self-esteem entered into the equation, and the explained variance increased to 20%, $F_{\text{change}}(1, 194) = 4.28, p < .05$. A significant positive association was obtained between self-esteem and precontemplation ($\beta = .13, \beta = .14, t[194] = 2.07, p < .05$), indicating that after controlling for the variance accounted for by insignificance of struggle, participants with higher self-esteem reported more precontemplation. Among the CTS-Assumptions, Injustice-Oriented Assumptions entered into the equation, and the explained variance increased to 22%, $F_{\text{change}}(1, 193) = 4.85, p < .05$. A significant positive association was observed between the Injustice-Oriented Assumptions and precontemplation ($\beta = .14, \beta = .14, t[193] = 2.20, p < .05$), indicating that after controlling for the variance accounted for by insignificance of struggle and self-esteem, participants with higher levels of the Injustice-Oriented Assumptions tended to report more precontemplation. In terms of coping variables, emotion-focused coping entered into the equation and the explained variance increased to 25%, $F_{\text{change}}(1, 192) = 5.34, p < .05$. A significant positive association was observed between emotion-focused coping and precontemplation ($\beta = .15, \beta = .17, t[192] = 2.31, p < .05$), indicating that after controlling for the variance accounted for by insignificance of struggle, self-esteem, and the Injustice-Oriented Assumptions, participants with higher levels of emotion-focused coping tended to report more precontemplation. Finally, indirect coping entered into the equation, and the explained variance increased to 27%, $F_{\text{change}}(1, 191) = 6.06, p < .05$. A significant negative association was observed between indirect coping and precontemplation ($\beta = -.15, \beta = -.17, t[191] = -2.46, p < .05$), indicating that after

controlling for the variance accounted for by insignificance of struggle, self-esteem, Injustice-Oriented Assumptions, and emotion-focused coping, participants who utilized less from indirect coping strategies tended to report more precontemplation. The stepwise regression equation did not provide significant associations with personality measures, affective measures, and CTS-defensive strategies in terms of precontemplation.

None of the control measures was found to have significant association with contemplation (see Section 2.1.4.3.3.1). Therefore, personality measures were entered in the first step. As can be followed from Table 2.38.B, among the personality variables initially agreeableness entered into the equation, and explained 5% of the variance, $F(1, 195) = 9.83, p < .01$. A significant positive association was obtained between agreeableness and contemplation ($\beta = .22, t[195] = 3.13, p < .01$), indicating that participants with a high level of agreeableness reported more contemplation. Regarding locus of control, internal locus of control entered into the equation, and the explained variance increased to 12%, $F_{\text{change}}(1, 194) = 15.28, p < .001$. A significant negative association was obtained between internal locus of control and contemplation ($\beta = -.28, t[194] = -3.91, p < .001$), indicating that after controlling for the variance accounted for by agreeableness, participants with lower levels of internal locus of control reported more contemplation. Besides, fatalism entered into the equation, and the explained variance increased to 14%, $F_{\text{change}}(1, 193) = 5.05, p < .05$. A significant positive association was observed between fatalism and contemplation ($\beta = .16, t[193] = 2.25, p < .05$), indicating that after controlling for the variance accounted for by agreeableness and internal locus of control, participants with higher levels of fatalism tended to report more contemplation. Among CTS-Assumptions, cold-heartedness entered into the equation and the explained variance increased to 16%, $F_{\text{change}}(1, 192) = 5.22, p < .05$. A significant negative association was observed between cold-heartedness and contemplation ($\beta = -.16, t[192] = -2.29, p < .05$), indicating that after controlling for the variance accounted for by agreeableness, internal locus of control, and fatalism, participants with lower levels of cold-heartedness tended to report more contemplation. Finally, positive affect entered into the equation, and the explained variance increased to 19%, $F_{\text{change}}(1, 191) = 6.42, p < .05$. A significant positive

association was observed between positive affect and contemplation ($\beta = .17$, $\beta = .18$, $t[191] = 2.53$, $p < .05$), indicating that after controlling for the variance accounted for by agreeableness, internal locus of control, fatalism, and cold-heartedness, participants with higher levels of positive affect tended to report more contemplation. The stepwise regression equation did not provide significant associations with self-esteem, coping measures, and CTS-defensive strategies in terms of contemplation.

None of the control measures was found to have significant association with action (see Section 2.1.4.3.3.1). Therefore, personality measures were entered in the first step. As can be followed from Table 2.38.C, among the personality variables initially conscientiousness entered into the equation, and explained 7% of the variance, $F(1, 195) = 13.57$, $p < .001$. A significant positive association was obtained between conscientiousness and action ($\beta = .26$, $\beta = .26$, $t[195] = 3.68$, $p < .01$), indicating that participants with a high level of conscientiousness reported more action. Regarding locus of control, internal locus of control entered into the equation, and the explained variance increased to 15%, $F_{\text{change}}(1, 194) = 19.39$, $p < .001$. A significant negative association was obtained between internal locus of control and action ($\beta = -.29$, $\beta = -.31$, $t[194] = -4.40$, $p < .001$), indicating that after controlling for the variance accounted for by conscientiousness, participants with lower levels of internal locus of control reported more action. Besides, insignificance of struggle entered into the equation, and the explained variance increased to 20%, $F_{\text{change}}(1, 193) = 11.36$, $p < .001$. A significant positive association was observed between insignificance of struggle and action ($\beta = .22$, $\beta = .22$, $t[193] = 3.37$, $p < .001$), indicating that after controlling for the variance accounted for by conscientiousness and internal locus of control, participants with higher levels of insignificance of struggle tended to report more action. Among CTS-Assumptions, cold-heartedness entered into the equation and the explained variance increased to 23%, $F_{\text{change}}(1, 192) = 6.88$, $p < .01$. A significant negative association was observed between cold-heartedness and action ($\beta = -.17$, $\beta = -.17$, $t[192] = -2.62$, $p < .01$), indicating that after controlling for the variance accounted for by conscientiousness, internal locus of control, and insignificance of struggle, participants with lower levels of cold-heartedness tended to report more action. Finally, positive affect entered into the

equation, and the explained variance increased to 27%, $F_{\text{change}}(1, 191) = 10.37, p < .01$. A significant positive association was observed between positive affect and action ($\beta = .20, \beta = .22, t[191] = 3.22, p < .01$), indicating that after controlling for the variance accounted for by conscientiousness, internal locus of control, insignificance of struggle, and cold-heartedness, participants with higher levels of positive affect tended to report more action. The stepwise regression equation did not provide significant associations with self-esteem, coping measures, and CTS-defensive strategies in terms of action.

Lastly, maintenance was found to be significantly associated with education, history of living in the street, and history of self-harming behavior (see Section 2.1.4.3.3.1). As can be followed from Table 2.38.D, among the control measures initially self-harming behavior entered into the equation, and explained 7% of the variance, $F(1, 178) = 12.66, p < .001$. A significant positive association was obtained between self-harming behavior and maintenance ($\beta = .26, \beta = .26, t[178] = 3.56, p < .001$), indicating that participants with a history of self-harming behavior reported more maintenance. Besides, education entered into the equation, and the explained variance increased to 10%, $F_{\text{change}}(1, 177) = 7.53, p < .01$. A significant negative association was obtained between education and maintenance ($\beta = -.20, \beta = -.20, t[177] = -2.75, p < .01$), indicating that after controlling for the variance accounted for by self-harming behavior, participants with lower level of education reported more maintenance. Regarding locus of control, internal locus of control entered into the equation, and the explained variance increased to 20%, $F_{\text{change}}(1, 176) = 20.50, p < .001$. A significant negative association was obtained between internal locus of control and maintenance ($\beta = -.31, \beta = -.31, t[176] = -4.53, p < .001$), indicating that after controlling for the variance accounted for by self-harming behavior and education, participants with lower levels of internal locus of control reported more maintenance. Besides, belief in chance entered into the equation, and the explained variance increased to 25%, $F_{\text{change}}(1, 175) = 12.54, p < .001$. A significant positive association was observed between belief in chance and maintenance ($\beta = .23, \beta = .24, t[175] = 3.54, p < .001$), indicating that after controlling for the variance accounted for by self-harming behavior, education, and internal locus of control, participants with higher levels of belief in chance tended to

report more maintenance. In addition, self-esteem entered into the equation and the explained variance increased to 27%, $F_{\text{change}}(1, 174) = 5.23, p < .05$. A significant negative association was observed between self-esteem and maintenance ($\beta = -.15, \beta = -.16, t[174] = -2.29, p < .05$), indicating that after controlling for the variance accounted for by self-harming behavior, education, internal locus of control, and belief in chance, participants with lower self-esteem tended to report more maintenance. Among CTS-Assumptions, cold-heartedness entered into the equation and the explained variance increased to 29%, $F_{\text{change}}(1, 173) = 4.18, p < .05$. A significant negative association was observed between cold-heartedness and maintenance ($\beta = -.13, \beta = -.14, t[173] = -2.05, p < .05$), indicating that after controlling for the variance accounted for by self-harming behavior, education, internal locus of control, belief in chance, and self-esteem, participants with lower levels of cold-heartedness tended to report more maintenance. Moreover, positive affect entered into the equation, and the explained variance increased to 31%, $F_{\text{change}}(1, 172) = 3.95, p < .05$. A significant positive association was observed between positive affect and maintenance ($\beta = .13, \beta = .14, t[172] = 1.99, p < .05$), indicating that after controlling for the variance accounted for by self-harming behavior, education, internal locus of control, belief in chance, self-esteem, and cold-heartedness, participants with higher levels of positive affect tended to report more maintenance. Furthermore, problem-focused coping entered into the equation, and the explained variance increased to 34%, $F_{\text{change}}(1, 171) = 7.20, p < .01$. A significant negative association was observed between problem-focused coping and maintenance ($\beta = -.17, \beta = -.22, t[171] = -2.26, p < .01$), indicating that after controlling for the variance accounted for by self-harming behavior, education, internal locus of control, belief in chance, self-esteem, cold-heartedness, and positive affect, participants who utilized less from problem-focused coping tended to report more maintenance. Finally, Self-victimization strategies entered into the equation, and the explained variance increased to 35%, $F_{\text{change}}(1, 170) = 3.92, p < .05$. A significant positive association was observed between Self-victimization strategies and maintenance ($\beta = .12, \beta = .14, t[170] = 1.98, p < .05$), indicating that after controlling for the variance accounted for by self-harming behavior, education, internal locus of control, belief in chance, self-esteem, cold-heartedness, positive

affect, and problem-focused coping, participants who engaged in more Self-victimization strategies tended to report more maintenance. The stepwise regression equation did not provide significant associations with personality measures in terms of maintenance.

Table 2.38. Factors Associated with Stages of Change

IV	df	Fchange	β	t	pr	R ²
A.Precontemplation						
1.Control Measures						
-						
2.Personality Measures						
-						
3.Locus of Control						
Insignificance of struggle	1, 195	44.81***	.43	6.69	.43	.19
4.Self-Esteem	1, 194	4.28*	.14	2.07	.13	.20
5.CTS-Assumptions						
Injustice-Oriented Assumptions	1, 193	4.85*	.14	2.20	.14	.22
6.Affective Measures						
-						
7.Coping Measures						
Emotion-Focused Coping	1, 192	5.34*	.17	2.31	.15	.25
Indirect Coping	1, 191	6.06*	-.17	-2.46	-.15	.27
8.Defensive Strategies						
-						
B.Contemplation						
1.Control Measures						
-						
2.Personality Measures						
Agreeableness	1, 195	9.83**	.22	3.13	.22	.05
3.Locus of Control						
Internal locus of control	1, 194	15.28***	-.28	-3.91	-.26	.12
Fatalism	1, 193	5.05*	.16	2.25	.15	.14
4.Self-Esteem						
5.CTS-Assumptions						
Cold-Heartedness	1, 192	5.22*	-.16	-2.29	-.15	.16
6.Affective Measures						
Positive Affect	1, 191	6.42*	.18	2.53	.17	.19
7.Coping Measures						
-						
8.Defensive Strategies						
-						

Table 2.38. Cont'd

IV	df	Fchange	β	t	pr	R ²
C.Action						
1.Control Measures						
-						
2.Personality Measures						
Conscientiousness	1, 195	13.57***	.26	3.68	.26	.07
3.Locus of Control						
Internal locus of control	1, 194	19.39***	-.31	-4.40	-.29	.15
Insignificance of struggle	1, 193	11.36***	.22	3.37	.22	.20
4.Self-Esteem						
5.CTS-Assumptions						
Cold-heartedness	1, 192	6.88**	-.17	-2.62	-.17	.23
6.Affective Measures						
Positive affect	1, 191	10.37**	.22	3.22	.20	.27
7.Coping Measures						
-						
8.Defensive Strategies						
-						
D.Maintenance						
1.Control Measures						
Self-harming behavior	1, 178	12.66***	.26	3.56	.26	.07
Education	1, 177	7.53**	-.20	-2.75	-.20	.10
2.Personality Measures						
-						
3.Locus of Control						
Internal locus of control	1, 176	20.50***	-.31	-4.53	-.31	.20
Belief in chance	1, 175	12.54***	.24	3.54	.23	.25
4.Self-Esteem	1, 174	5.23*	-.16	-2.29	-.15	.27
5.CTS-Assumptions						
Cold-heartedness	1, 173	4.18*	-.14	-2.05	-.13	.29
6.Affective Measures						
Positive affect	1, 172	3.95*	.14	1.99	.13	.31
7.Coping Measures						
Problem-focused coping	1, 171	7.20**	-.22	-2.26	-.17	.34
8.Defensive Strategies						
Self-victimization strategies	1, 170	3.92*	.14	1.98	.12	.35

* $p < .05$, ** $p < .01$, *** $p < .001$.

2.2.4.5. Mediator Role of Locus of Control between Offence-Supportive Assumptions and Motivation to Change

Taking into account the factors associated with stages of change, insignificance of struggle was found to be positively contributing to the precontemplation, and internal locus of control was found to be negatively contributing to the maintenance stages of change. According to the findings reported in Study I.A, insignificance of struggle was found to be associated with both power-oriented assumptions and Injustice-oriented assumptions. Moreover, internal locus of control was found to be positively associated with cold-heartedness. Therefore, the following hypotheses were developed and tested with subsequent mediated regression analyses.

- 1- Insignificance of struggle is hypothesized to mediate the relationship between power-oriented assumptions and precontemplation
- 2- Insignificance of struggle is hypothesized to mediate the relationship between Injustice-oriented assumptions and precontemplation
- 3- Internal locus of control is hypothesized to mediate the relationship between cold-heartedness and contemplation
- 4- Internal locus of control is hypothesized to mediate the relationship between cold-heartedness and action
- 5- Internal locus of control is hypothesized to mediate the relationship between cold-heartedness and maintenance

2.2.4.5.1. Mediator Role of Insignificance of Struggle between Power-Oriented Assumptions and Precontemplation

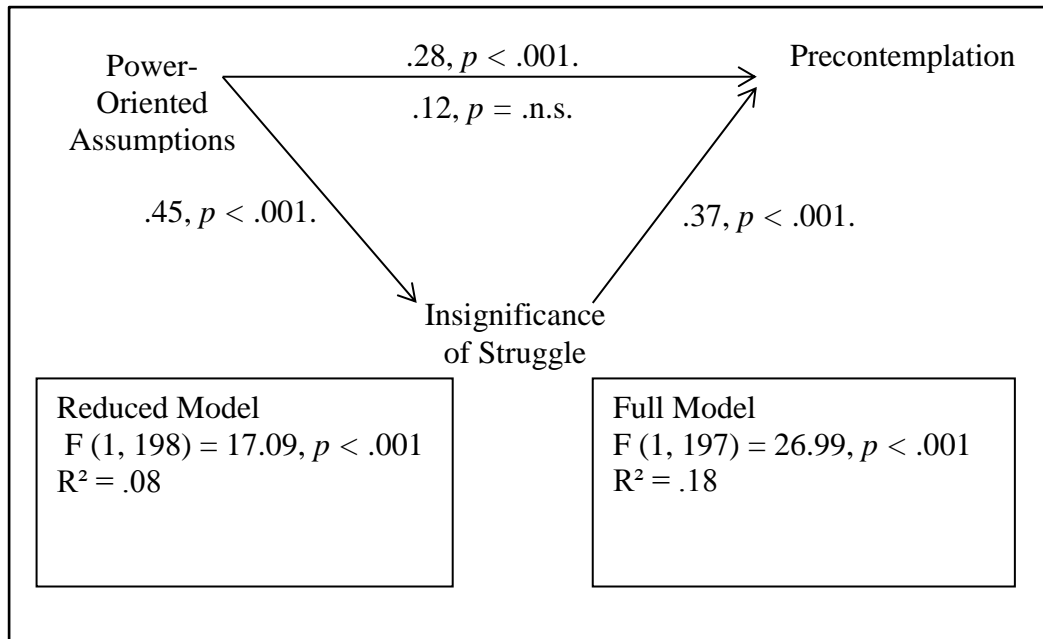
As can be followed from Table 2.39.A, power-oriented assumptions explained 8% of the variance, $F(1, 198) = 17.09, p < .001$ and revealed a significant positive association with precontemplation ($\beta = .28, t[198] = 4.13, p < .001$). Insignificance of struggle was entered in the second step and the explained variance increased to 18%, $F_{\text{change}}(1, 197) = 26.99, p < .001$. Furthermore, it revealed a significant positive association with precontemplation ($\beta = .33, t[197] = 5.20, p < .001$). After controlling for the variance accounted for by insignificance of struggle, it was observed that the significance of power-oriented assumptions disappeared, ($\beta = .10, t[197] = 1.62, p = \text{n.s.}$) and sobel test

confirmed this significant decrease ($z = 4.16, p < .001$). To further support the model, another regression equation was formulated where power-oriented assumptions was the independent and insignificance of struggle was the dependent variable. As can be followed from Table 2.39.B, power-oriented assumptions explained 20% of the variance, $F(1, 198) = 49.15, p < .001$ and revealed a significant positive association with insignificance of struggle ($\beta = .45, t[198] = 7.01, p < .001$). Thus it was supported that insignificance of struggle mediated the relationship between power-oriented assumptions and precontemplation (see Figure 2.1).

Table 2.39. Summary of the Regression Models Testing for the Mediator Role of Insignificance of Struggle between Power-Oriented Assumptions and Precontemplation

IV	df	Fchange	β	t	pr	R ²
A. DV = Precontemplation						
1)Power-Oriented Assumptions	1, 198	17.09***	.28	4.13***	.28	.08
2)Insignificance of Struggle	1, 197	26.99***	.37	5.20***	.33	.18
Power-Oriented Assumptions			.12	1.62	.10	
B. DV = Insignificance of Struggle						
1) Power-Oriented Assumptions	1, 198	49.15***	.45	7.01***	.45	.20

Note: ** $p < .01$, *** $p < .001$.



Note. The figure includes beta-weights, F values, and R^2 's for the model before insignificance of struggle is included (Reduced Model) and after the inclusion of insignificance of struggle (Full Model). The initial path between power-oriented assumptions and precontemplation is indicated by beta-weight (and p values) on top of the line connecting these variables, while the beta-weight (and p values) after insignificance of struggle is included as the mediator is indicated by the values beneath the path.

Figure 2.1. Mediator Role of Insignificance of Struggle between Power-Oriented Assumptions and Precontemplation

2.2.4.5.2. Mediator Role of Insignificance of Struggle between Injustice-Oriented Assumptions and Precontemplation

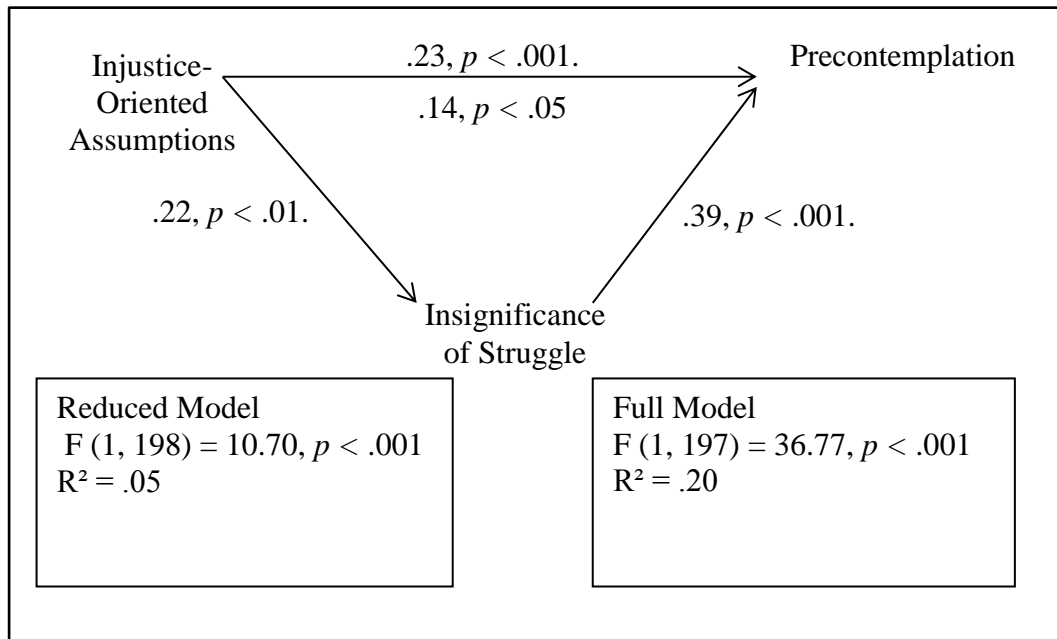
As can be followed from Table 2.40.A, injustice-oriented assumptions explained 5% of the variance, $F(1, 198) = 10.70, p < .001$ and revealed a significant positive association with precontemplation ($\beta = .23, t[198] = 3.27, p < .001$). Insignificance of struggle was entered in the second step and the explained variance increased to 20%, $F_{change}(1, 197) = 36.77, p < .001$. Furthermore, it revealed a significant positive association with precontemplation ($\beta = .39, t[197] = 6.02, p < .001$). After controlling for the variance accounted for by insignificance of struggle, a drop in the significance of injustice-oriented assumptions was observed, ($\beta = .14, t[197] = 2.17, p < .05$) and sobel test confirmed this significant decrease ($z = 2.76, p < .01$). To further support the model, another regression equation was formulated where injustice-oriented assumptions

was the independent and insignificance of struggle was the dependent variable. As can be followed from Table 2.40.B, injustice-oriented assumptions explained 5% of the variance, $F(1, 198) = 9.62$, $p < .01$ and revealed a significant positive association with insignificance of struggle ($\beta = .22$, $t[198] = 3.10$, $p < .01$). Thus it was supported that insignificance of struggle mediated the relationship between injustice-oriented assumptions and precontemplation (see Figure 2.2).

Table 2.40. Summary of the Regression Models Testing for the Mediator Role of Insignificance of Struggle between Power-Oriented Assumptions and Precontemplation

IV	df	Fchange	β	t	pr	R ²
A. DV = Precontemplation						
1)Injustice-Oriented Assumptions	1, 198	10.70***	.23	3.27***	.23	.05
2)Insignificance of Struggle Injustice-oriented Assumptions	1, 197	36.77***	.39	6.02***	.38	.20
			.14	2.17*	.14	
B. DV = Insignificance of Struggle						
1) Injustice-Oriented Assumptions	1, 198	9.62**	.22	3.10**	.22	.05

Note: * $p < .05$, ** $p < .01$, *** $p < .001$.



Note. The figure includes beta-weights, F values, and R^2 's for the model before insignificance of struggle is included (Reduced Model) and after the inclusion of insignificance of struggle (Full Model). The initial path between injustice-oriented assumptions and precontemplation is indicated by beta-weight (and p values) on top of the line connecting these variables, while the beta-weight (and p values) after insignificance of struggle is included as the mediator is indicated by the values beneath the path.

Figure 2.2. Mediator Role of Insignificance of Struggle between Injustice-Oriented Assumptions and Precontemplation

2.2.4.5.3. Mediator Role of Internal Locus of Control between Cold-Heartedness and Contemplation

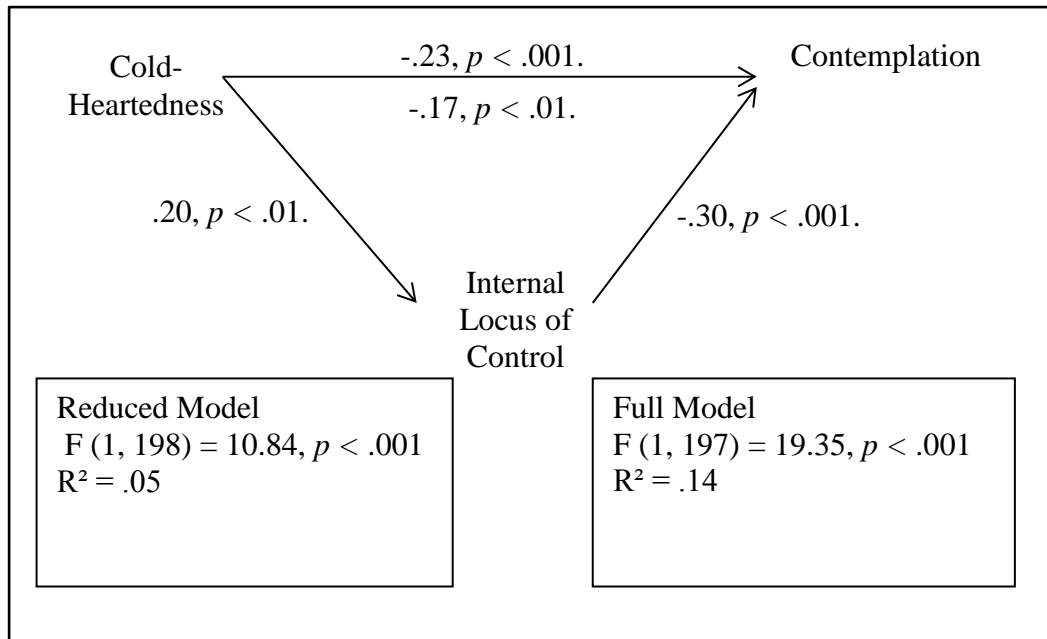
As can be followed in Table 2.41.A, cold-heartedness explained 5% of the variance, $F(1, 198) = 10.84, p < .001$ and revealed a significant negative association with contemplation ($\beta = -.23, t[198] = -3.29, p < .001$). Internal locus of control was entered in the second step and the explained variance increased to 14%, $F_{\text{change}}(1, 197) = 19.35, p < .001$. Furthermore, it revealed a significant negative association with contemplation ($\beta = -.30, t[197] = -4.40, p < .001$). After controlling for the variance accounted for by the internal locus of control, a drop was observed in the effect of cold-heartedness, ($\beta = -.17, t[197] = -2.51, p < .01$) and sobel test confirmed this significant decrease ($z = -2.36, p < .01$). To further support the model, another regression equation was formulated where cold-heartedness was the independent and internal locus of control was the dependent

variable. As can be followed from Table 2.41.B, cold-heartedness explained 4% of the variance, $F(1, 198) = 7.96$, $p < .01$ and revealed a significant positive association with internal locus of control ($\beta = .20$, $t[198] = 2.82$, $p < .01$). Thus it was supported that internal locus of control mediated the relationship between cold-heartedness and contemplation (see Figure 2.3).

Table 2.41. Summary of the Regression Models Testing for the Mediator Role of Internal Locus of Control between Cold-Heartedness and Contemplation

IV	df	Fchange	β	t	pr	R ²
A. DV = Contemplation						
1) Cold-Heartedness	1, 198	10.84***	-.23	-3.29***	-.23	.05
2) Internal Locus of Control	1, 197	19.35***	-.30	-4.40***	-.29	.14
Cold-Heartedness			-.17	-2.51**	-.17	
B. DV = Internal Locus of Control						
1) Cold-Heartedness	1, 198	7.96**	.20	2.82**	.20	.04

Note: ** $p < .01$, *** $p < .001$.



Note. The figure includes beta-weights, F values, and R^2 's for the model before internal locus of control is included (Reduced Model) and after the inclusion of internal locus of control (Full Model). The initial path between cold-heartedness and contemplation is indicated by beta-weight (and p values) on top of the line connecting these variables, while the beta-weight (and p values) after internal locus of control is included as the mediator is indicated by the values beneath the path.

Figure 2.3. Mediator Role of Cold-Heartedness between Internal Locus of Control and Contemplation

2.2.4.5.4. Mediator Role of Internal Locus of Control between Cold-Heartedness and Action

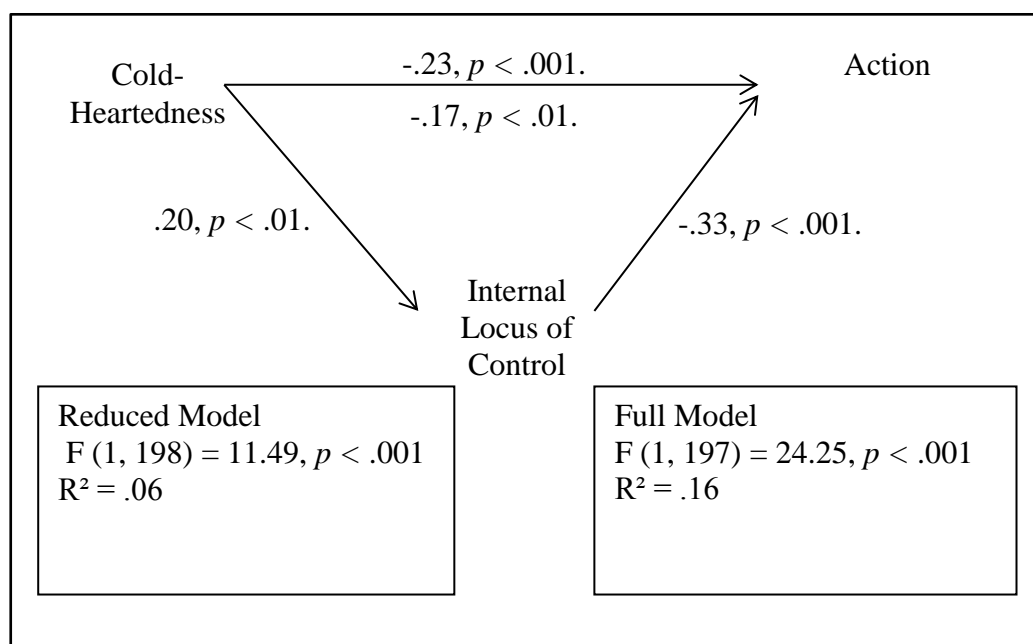
As can be followed in Table 2.42.A, cold-heartedness explained 6% of the variance, $F(1, 198) = 11.49, p < .001$ and revealed a significant negative association with action ($\beta = -.23, t[198] = -3.39, p < .001$). Internal locus of control was entered in the second step and the explained variance increased to 16%, $F_{\text{change}}(1, 197) = 24.25, p < .001$. Furthermore, it revealed a significant negative association with action ($\beta = -.32, t[197] = -4.93, p < .001$). After controlling for the variance accounted for by the internal locus of control, a drop was observed in the effect of cold-heartedness, ($\beta = -.17, t[197] = -2.55, p < .01$) and sobel test confirmed this significant decrease ($z = -2.46, p < .01$). As previously noted, when cold-heartedness was the independent and internal locus of control was the dependent variable, cold-heartedness explained 4% of the variance, $F(1, 198) = 7.96,$

$p < .01$ and revealed a significant positive association with internal locus of control ($\beta = .20$, $t[198] = 2.82$, $p < .01$) (see Table 2.42.B). Thus it was supported that internal locus of control mediated the relationship between cold-heartedness and action (see Figure 2.4).

Table 2.42. Summary of the Regression Models Testing for the Mediator Role of Internal Locus of Control between Cold-Heartedness and Contemplation

IV	df	Fchange	β	t	pr	R ²
A. DV = Action						
1) Cold-Heartedness	1, 198	11.49***	-.23	-3.39***	-.23	.06
2) Internal Locus of Control	1, 197	24.25***	-.33	-4.93***	-.32	.16
Cold-Heartedness			-.17	-2.55**	-.17	
B. DV = Internal Locus of Control						
1) Cold-Heartedness	1, 198	7.96**	.20	2.82**	.20	.04

Note: ** $p < .01$, *** $p < .001$.



Note. The figure includes beta-weights, F values, and R^2 's for the model before internal locus of control is included (Reduced Model) and after the inclusion of internal locus of control (Full Model). The initial path between cold-heartedness and action is indicated by beta-weight (and p values) on top of the line connecting these variables, while the beta-weight (and p values) after internal locus of control is included as the mediator is indicated by the values beneath the path.

Figure 2.4. Mediator Role of Cold-Heartedness between Internal Locus of Control and Action

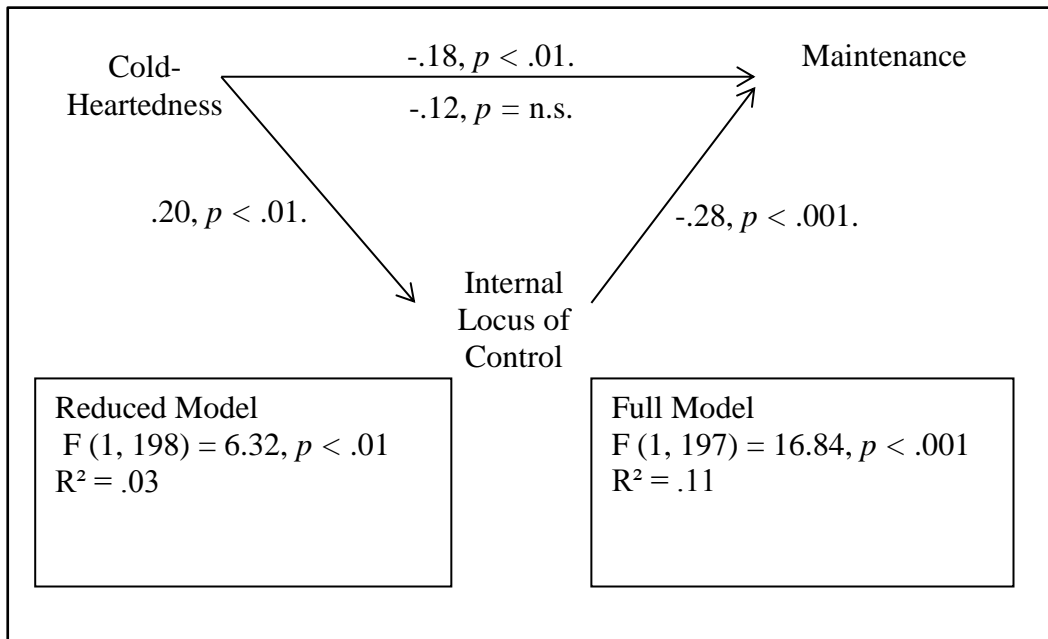
2.2.4.5.5. Mediator Role of Internal Locus of Control between Cold-Heartedness and Maintenance

As can be followed in Table 2.43.A, cold-heartedness explained 3% of the variance, $F(1, 198) = 6.32, p < .01$ and revealed a significant negative association with maintenance ($\beta = -.18, t[198] = -2.52, p < .01$). Internal locus of control was entered in the second step and the explained variance increased to 11%, $F_{\text{change}}(1, 197) = 16.84, p < .001$. Furthermore, it revealed a significant negative association with maintenance ($\beta = -.28, t[197] = -4.10, p < .001$). After controlling for the variance accounted for by the internal locus of control, cold-heartedness lost its significance, ($\beta = -.12, t[197] = -1.76, p = \text{n.s.}$) and sobel test confirmed this significant decrease ($z = -2.33, p < .01$). As previously noted, when cold-heartedness was the independent and internal locus of control was the dependent variable, cold-heartedness explained 4% of the variance, $F(1, 198) = 7.96, p < .01$ and revealed a significant positive association with internal locus of control ($\beta = .20, t[198] = 2.82, p < .01$) (see Table 2.43.B). Thus it was supported that internal locus of control mediated the relationship between cold-heartedness and maintenance (see Figure 2.5).

Table 2.43. Summary of the Regression Models Testing for the Mediator Role of Internal Locus of Control between Cold-Heartedness and Contemplation

IV	df	Fchange	β	t	pr	R ²
A. DV = Maintenance						
1)Cold-Heartedness	1, 198	6.32**	-.18	-2.52**	-.18	.03
2)Internal Locus of Control	1, 197	16.84***	-.28	-4.10***	-.28	.11
Cold-Heartedness			-.12	-1.76	-.12	
B. DV = Internal Locus of Control						
1) Cold-Heartedness	1, 198	7.96**	.20	2.82**	.20	.04

Note: ** $p < .01$, *** $p < .001$.



Note. The figure includes beta-weights, F values, and R^2 's for the model before internal locus of control is included (Reduced Model) and after the inclusion of internal locus of control (Full Model). The initial path between cold-heartedness and maintenance is indicated by beta-weight (and p values) on top of the line connecting these variables, while the beta-weight (and p values) after internal locus of control is included as the mediator is indicated by the values beneath the path.

Figure 2.5. Mediator Role of Cold-Heartedness between Internal Locus of Control and Maintenance

2.2.4.6. Moderator Role of Defensive Strategies between Offence-Supportive Assumptions and Motivation to Change

In order to examine the moderator role of defensive strategies between offence-supportive assumptions and motivation to change, a series of moderation analyses were conducted where the CTS-Assumptions (i.e., Power-oriented assumptions, Injustice-Oriented Assumptions, and Cold-Heartedness) were treated as independent variables separately in each model, CTS-Defensive Strategies (i.e., Externalizing and trivializing strategies and Self-victimization strategies) were moderator variables and the dimensions of motivation to change (i.e., Precontemplation, Contemplation, Action, and Maintenance) were the dependent variables. Following subsequent multiple regression equations, slope analyses were conducted separately for each significant moderator relations.

Being “power-oriented assumptions” the independent variable (see Table 2.44), a significant interaction effect was observed only in terms of “action” (see

Table 2.44.C). Accordingly, power oriented assumptions ($\beta = -.04$, $p = \text{n.s.}$) and externalizing and trivializing strategies ($\beta = -.04$, $p = \text{n.s.}$) did not significantly contribute to action. However, their interaction was significant, $t(194) = -2.19$, $p < .05$, therefore further slope analysis was conducted.

For this analysis, all variables of moderated regression were entered into the equation simultaneously. Accordingly, individual effects of high and low levels of the moderation variable were investigated separately, and the slopes were figured out taking into account the high and low levels of the independent variable (i.e., one standard deviation above and below).

According to the slope analyses (see Table 2.45), both of the slopes (i.e., high and low level of externalizing and trivializing strategies, $t(196) = -.99$, $p = \text{n.s.}$, and $t(196) = .69$, $p = \text{n.s.}$, respectively) were non-significant, indicating that the moderator role of externalizing and trivializing strategies between power oriented assumptions and action was not supported. However, as shown in Figure 2.6., there seems to be a tendency that while high level of externalizing and trivializing strategies contributed negatively to action for the participants with high level of power-oriented assumptions, it contributed positively to action for the participants with low level of power-oriented assumptions.

Table 2.44. Moderator Role of Defensive Strategies between Power-oriented assumptions and Motivation to Change

DV	df	Fchange	β	t	R ²
A.Precontemplation					
1.Power-oriented assumptions (ENPO)	1, 198	17.09***	.28	4.13***	.08
2.Defesive Strategies Externalizing (JU)	2, 196	7.15***			.14
Victimization (PI)			-.02	-.18	
3.Interaction Terms ENPO X JU	2, 194	.86	.30	3.75***	.15
ENPO X PI			.08	.81	
			-.13	-1.31	
B.Contemplation					
1.Power-oriented assumptions (ENPO)	1, 198	.05	.02	.23	.00
2.Defesive Strategies Externalizing (JU)	2, 196	.98			.01
Victimization (PI)			-.08	-.80	
3.Interaction Terms ENPO X JU	2, 194	1.76	.11	1.28	.03
ENPO X PI			-.19	-1.81	
			.17	1.60	
C.Action					
1.Power-oriented assumptions (ENPO)	1, 198	.30	-.04	-.55	.00
2.Defesive Strategies Externalizing (JU)	2, 196	3.32*			.03
Victimization (PI)			-.04	-.43	
3.Interaction Terms ENPO X JU	2, 194	2.43	.22	2.58**	.06
ENPO X PI			-.23	-2.19*	
			.17	1.68	
D.Maintenance					
1.Power-oriented assumptions (ENPO)	1, 198	7.91**	.20	2.81	.04
2.Defesive Strategies Externalizing (JU)	2, 196	3.86*			.08
Victimization (PI)			.13	1.40	
3.Interaction Terms ENPO X JU	2, 194	1.03	.18	2.11	.08
ENPO X PI			-.14	-1.34	
			.06	.57	

$p < .05$, ** $p < .01$, *** $p < .001$

Note. Significant interaction terms were indicated with bold.

Table 2.45. Slope Analyses for Externalizing and Trivializing Strategies Moderating the Relationship between Power-Oriented Assumptions and Action

DV = Action	Constant	df	F	R²	B	SE	β	t
1.ENPO	34.244	3, 196	.95	.01	-.05	.05	-.10	-.99
JU-High					.02	.08	.02	.22
ENPO X JU-High					-.01	.00	-.12	-1.60
2.ENPO	29.632	3, 196	.95	.01	.04	.06	.08	.69
JU-Low					.02	.08	.02	.22
ENPO X JU-Low					-.01	.00	-.18	-1.60

Note. ENPO = Power-Oriented Assumptions, JU = Externalizing & Trivializing Strategies

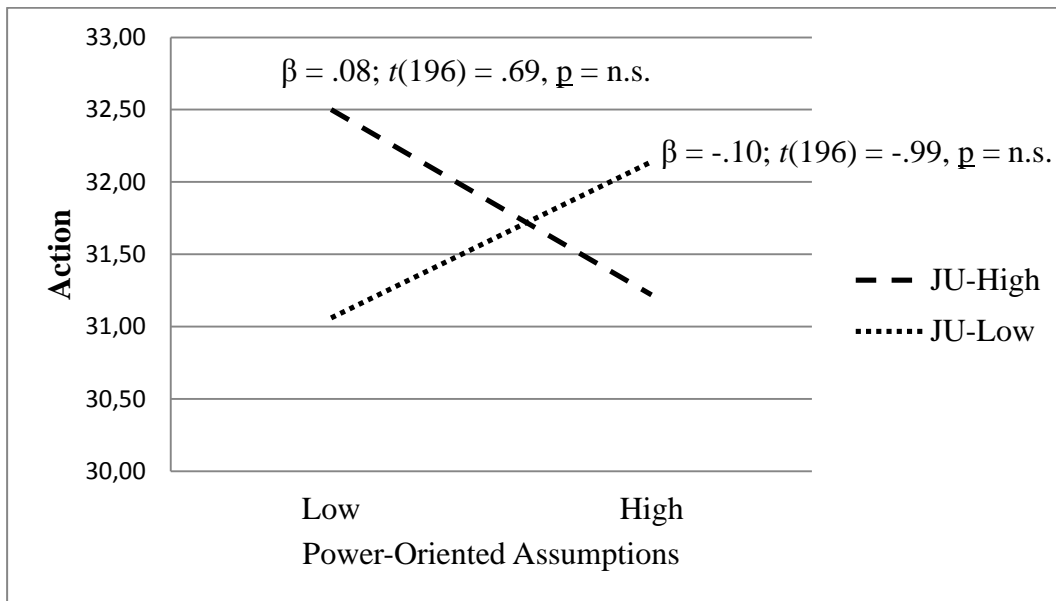


Figure 2.6. Moderator Role of Externalizing and Trivializing Strategies (JU) between Power-Oriented Assumptions and Action

Being “Injustice-Oriented Assumptions” the independent variable (see Table 2.46), significant interaction effects were observed in terms of precontemplation and action. Regarding precontemplation (see Table 2.46.A), Injustice-Oriented Assumptions revealed a significant positive association with precontemplation ($\beta = .23$, $p < .001$). Although externalizing and trivializing strategies did not significantly contribute to precontemplation ($\beta = .05$, $p = \text{n.s.}$), their interaction was significant, $t(196) = -3.04$, $p < .01$. Besides, Self-victimization strategies revealed a positive association with precontemplation ($\beta = .33$, $p < .001$), and its interaction with Injustice-Oriented Assumptions was also significant, $t(196) = 3.51$, $p < .001$. In terms of externalizing and trivializing strategies, further slope analyses (see Table 2.47.A) revealed that, high level of externalizing and trivializing strategies did not significantly alter the relationship between the Injustice-Oriented Assumptions and precontemplation, $t(196) = .56$, $p = \text{n.s.}$ However, low level of externalizing and trivializing strategies altered the relationship, $t(196) = 2.96$, $p < .01$, indicating that the participants with Injustice-Oriented Assumptions significantly reported more precontemplation if they engaged in low level of externalizing and trivializing strategies (see Figure 2.7.). On the other hand, in terms of the self-victimization strategies, slope analyses (see Table 2.47.B) depicted that both of the slopes (i.e.,

high and low level of Self-victimization strategies, $t(196) = 1.54$, $p = n.s.$, and $t(196) = -.73$, $p = n.s.$, respectively) were non-significant, indicating that the moderator role of Self-victimization strategies between the Injustice-Oriented Assumptions and precontemplation was not supported. However, as shown in Figure 2.8., there seems to be a tendency that while engaging in high level of Self-victimization strategies increase the probability of reporting precontemplation for the participants with high level of the Injustice-Oriented Assumptions, engaging in low level of Self-victimization strategies tend to decrease this probability.

Regarding action (see Table 2.46.C), Injustice-Oriented Assumptions ($\beta = -.02$, $p = n.s.$) and externalizing and trivializing strategies ($\beta = -.11$, $p = n.s.$) did not significantly contribute to action. However, their interaction was significant, $t(194) = -2.02$, $p < .05$. According to the further slope analysis (see Table 2.47.C), both of the slopes (i.e., high and low level of externalizing and trivializing strategies, $t(196) = -1.93$, $p = n.s.$, and $t(196) = 1.11$, $p = n.s.$, respectively) were non-significant, indicating that the moderator role of externalizing and trivializing strategies between the Injustice-Oriented Assumptions and action was not supported. However, as shown in Figure 2.9., there seems to be a tendency that while high level of externalizing and trivializing strategies contributed negatively to action for the participants with high level of the Injustice-Oriented Assumptions, it contributed positively to action for the participants with low level of the Injustice-Oriented Assumptions.

Table 2.46. Moderator Role of Defensive Strategies between the Injustice-Oriented Assumptions and Motivation to Change

DV	df	Fchange	β	t	R ²
A.Precontemplation					
1. Injustice-Oriented Assumptions (CR)	1, 198	10.70***	.23	3.27***	.05
2.Defesive Strategies Externalizing (JU)	2, 196	9.39***	.05	.68	.12
Victimization (PI)			.33	3.64***	
3.Interaction Terms CR X JU	2, 194	6.77***	-.26	-3.04**	.17
CR X PI			.30	3.51***	
B.Contemplation					
1. Injustice-Oriented Assumptions (CR)	1, 198	.13	-.03	-.36	.00
2.Defesive Strategies Externalizing (JU)	2, 196	1.71	-.08	-.93	.02
Victimization (PI)			.18	1.84	
3.Interaction Terms CR X JU	2, 194	.37	-.07	-.77	.02
CR X PI			.02	.16	
C.Action					
1. Injustice-Oriented Assumptions (CR)	1, 198	.05	-.02	-.23	.00
2.Defesive Strategies Externalizing (JU)	2, 196	3.90*	-.11	-1.40	.04
Victimization (PI)			.26	2.78**	
3.Interaction Terms CR X JU	2, 194	2.42	-.19	-2.02*	.06
CR X PI			.05	.57	
D.Maintenance					
1. Injustice-Oriented Assumptions (CR)	1, 198	1.32	.08	1.15	.01
2.Defesive Strategies Externalizing (JU)	2, 196	7.80***	.14	1.76	.08
Victimization (PI)			.23	2.53**	
3.Interaction Terms CR X JU	2, 194	1.99	-.17	-1.91	.10
CR X PI			.15	1.64	

* $p < .05$, ** $p < .01$, *** $p < .001$

Note. Significant interaction terms were indicated with bold.

Table 2.47. Slope Analyses for Externalizing and Trivializing Strategies Moderating the Relationship between Injustice-Oriented Assumptions and Precontemplation, Self-Victimization Strategies Moderating the Relationship between Injustice-Oriented Assumptions and Precontemplation, and Externalizing and Trivializing Strategies Moderating the Relationship between Injustice-Oriented Assumptions and Action

DV	Constant	df	F	R ²	B	SE	β	t
A.DV = Precontemplation								
1.CR	22.262	3, 196	6.08***	.09	.04	.07	.06	.56
JU-High					.13	.05	.18	2.46*
CR X JU-High					-.01	.01	-.15	-1.42
2.CR	16.491	3, 196	6.08***	.09	.14	.05	.25	2.96**
JU-Low					.13	.05	.18	2.46*
CR X JU-Low					-.01	.01	-.12	-1.42
B.DV = Precontemplation								
1.CR	20.619	3, 196	11.42***	.15	.10	.07	.17	1.54
PI-High					.23	.05	.36	4.47***
CR X PI-High					.01	.00	.20	1.95
2.CR	21.309	3, 196	11.42***	.15	-.04	.06	-.07	-.73
PI-Low					.23	.05	.36	4.47***
CR X PI-Low					.01	.00	.15	1.95
C.DV = Action								
1.CR	36.610	3, 196	1.94	.03	-.14	.07	-.22	-1.93
JU-High					.00	.06	.00	.02
CR X JU-High					-.01	.01	-.27	-2.39*
2.CR	29.457	3, 196	1.94	.03	.06	.06	.10	1.11
JU-Low					.00	.06	.00	.02
CR X JU-Low					-.01	.01	-.20	-2.39*

* $p < .05$, ** $p < .01$, *** $p < .001$

Note. ENPO = Power-Oriented Assumptions, CR = Injustice-Oriented Assumptions, JU = Externalizing & Trivializing Strategies, PI = Self-Victimization Strategies

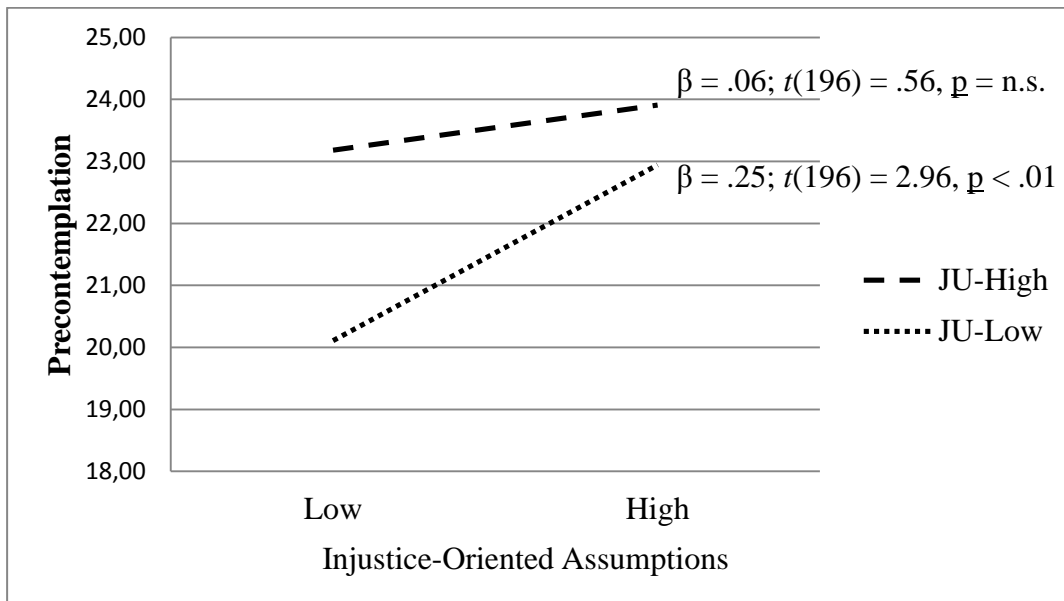


Figure 2.7. Moderator Role of Externalizing and trivializing strategies (JU) between the Injustice-Oriented Assumptions and Precontemplation

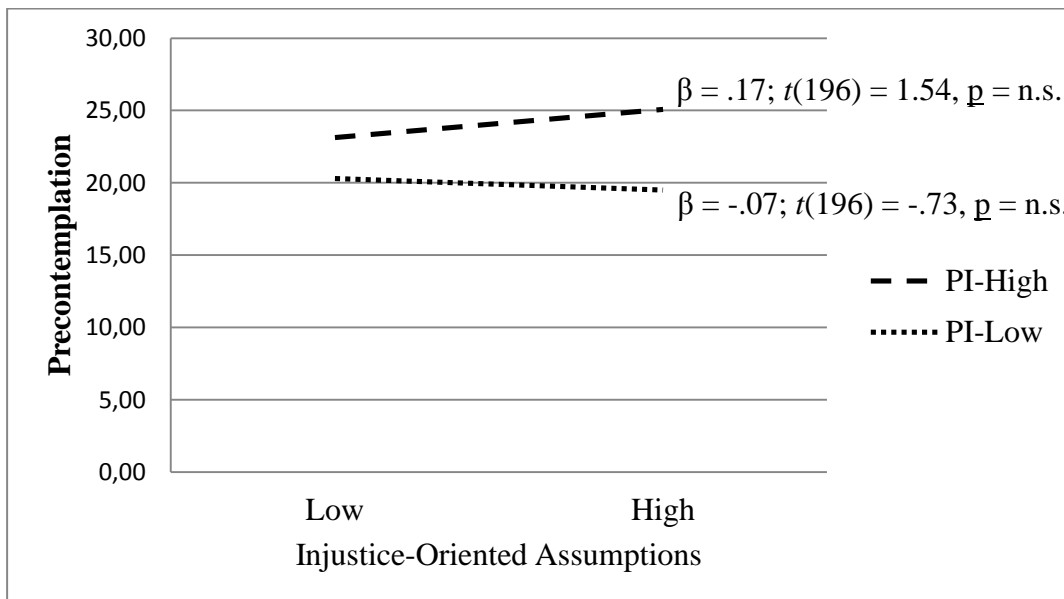


Figure 2.8. Moderator Role of Self-Victimization Strategies (PI) between the Injustice-Oriented Assumptions and Precontemplation

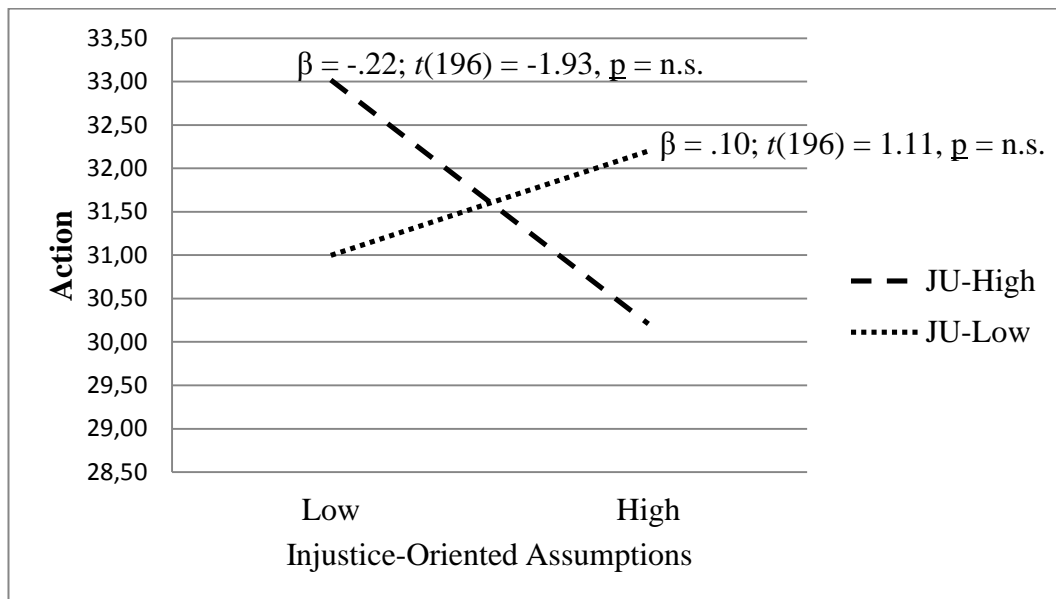


Figure 2.9. Moderator Role of Externalizing and trivializing strategies (JU) between the Injustice-Oriented Assumptions and Action

Being “cold-heartedness” the independent variable (see Table 2.48), significant interaction effects were observed in terms of contemplation (see Table 2.48.B). Accordingly, cold-heartedness revealed a significant negative association with contemplation ($\beta = -.23$, $p < .001$). Although self-victimization strategies did not significantly contribute to contemplation ($\beta = .05$, $p = \text{n.s.}$), their interaction was significant, $t(196) = 2.40$, $p < .05$. Further slope analysis (see Table 2.49) revealed that, high level of Self-victimization strategies did not significantly alter the relationship between cold-heartedness and contemplation, $t(196) = -.40$, $p = \text{n.s.}$ However, low level of Self-victimization strategies altered the relationship, $t(196) = -3.74$, $p < .001$, indicating that the participants with cold-heartedness significantly reported less contemplation if they engaged in low level of Self-victimization strategies (see Figure 2.10.).

Table 2.48. Moderator Role of Defensive Strategies between Cold-Heartedness and Motivation to Change

DV	df	Fchange	β	t	R ²
A.Precontemplation					
1. Cold-Heartedness (CH)	1, 198	1.58	-.09	-1.26	.01
2.Defesive Strategies	2, 196	14.25***			.13
Externalizing (JU)			.05	.67	
Victimization (PI)			.34	4.38***	
3.Interaction Terms	2, 194	1.03			.14
CH X JU			.07	1.02	
CH X PI			-.09	-1.29	
B.Contemplation					
1. Cold-Heartedness (CH)	1, 198	10.84***	-.23	-3.29***	.05
2.Defesive Strategies	2, 196	.35			.06
Externalizing (JU)			-.06	-.79	
Victimization (PI)			.05	.60	
3.Interaction Terms	2, 194	3.08*			.08
CH X JU			-.10	-1.37	
CH X PI			.18	2.40*	
C.Action					
1. Cold-Heartedness (CH)	1, 198	11.49***	-.23	-3.39***	.06
2.Defesive Strategies	2, 196	1.29			.07
Externalizing (JU)			-.10	-1.26	
Victimization (PI)			.12	1.47	
3.Interaction Terms	2, 194	1.09			.08
CH X JU			-.11	-1.47	
CH X PI			.05	.62	
D.Maintenance					
1. Cold-Heartedness (CH)	1, 198	6.32**	-.18	-2.52**	.03
2.Defesive Strategies	2, 196	6.27**			.09
Externalizing (JU)			.14	1.86	
Victimization (PI)			.14	1.81	
3.Interaction Terms	2, 194	.92			.10
CH X JU			-.03	-.39	
CH X PI			.10	1.36	

* $p < .05$, ** $p < .01$, *** $p < .001$

Note. Significant interaction terms were indicated with bold.

Table 2.49. Slope Analyses for Self-Victimization Strategies Moderating the Relationship between Cold-Heartedness and Contemplation

DV = Contemplation	Constant	df	F	R²	B	SE	β	t
1.CH	31.276	3, 196	5.09**	.07	-.05	.12	-.05	-.40
PI-High					.01	.05	.02	.29
CH X PI-High					.02	.01	.23	2.06*
2.CH	35.486	3, 196	5.09**	.07	-.34	.09	-.32	-3.74***
PI-Low					-.01	.05	.02	.29
CH X PI-Low					.02	.01	.17	2.06*

* $p < .05$, ** $p < .01$, *** $p < .001$

Note. CH = Cold-Heartedness, PI = Self-Victimization Strategies

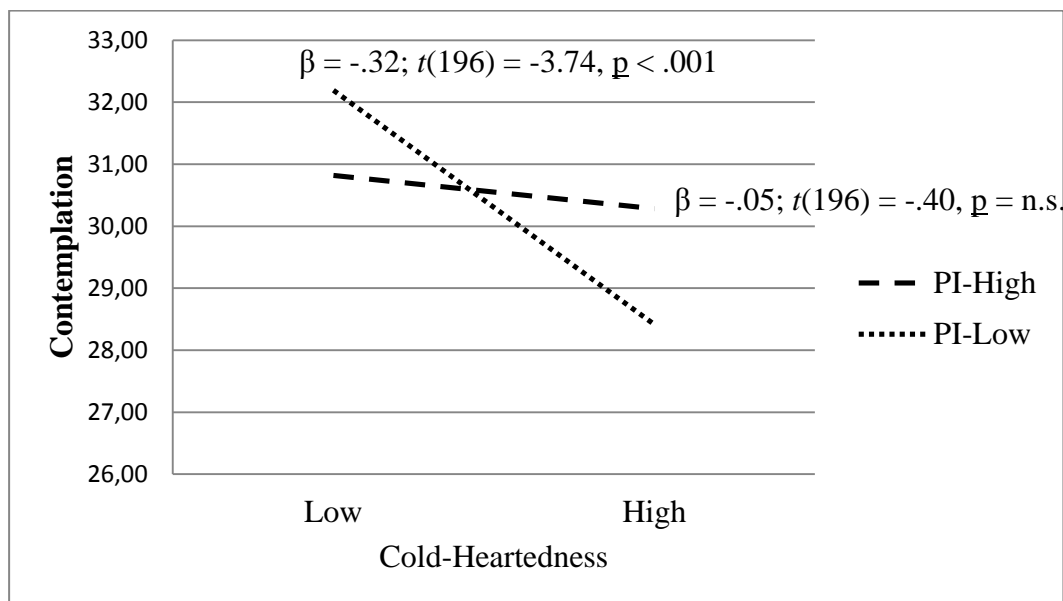


Figure 2.10. Moderator Role of the Self-victimization strategies (PI) between Cold-Heartedness and Contemplation

2.2.4.7. Moderator Role of Defensive Strategies between Decisional Balance and Motivation to Change

As can be followed from Table 2.50, the relationship between pros of offending and stages of change were not moderated by externalizing and trivializing strategies or the Self-victimization strategies. However, being “cons of offending” the independent variable (see Table 2.51), significant interaction effects were observed in terms of contemplation and action. Regarding contemplation (see Table 2.51.B), cons of offending revealed a significant positive association with contemplation ($\beta = .22, p < .05$). Although self-victimization strategies did not significantly contribute to contemplation ($\beta = .09, p = n.s.$), their interaction was significant, $t(196) = -2.30, p < .05$. Further slope analyses (see Table 2.52.A) revealed that, high level of Self-victimization strategies did not significantly alter the relationship between cons of offending and contemplation, $t(196) = .78, p = n.s.$ However, low level of Self-victimization strategies altered the relationship, $t(196) = 3.88, p < .001$, indicating that the participants with cons of offending significantly reported more contemplation if they engaged in low level of Self-victimization strategies (see Figure 2.11.). Likewise, in terms of action (see Table 2.51.C), cons of offending revealed a significant positive association with action ($\beta = .19, p < .01$). Although self-victimization strategies did not significantly contribute to action ($\beta =$

.16, $p = n.s.$), their interaction was significant, $t(196) = -2.40$, $p < .05$. Further slope analyses (see Table 2.52.B) revealed that, high level of self-victimization strategies did not significantly alter the relationship between cons of offending and action, $t(196) = .27$, $p = n.s.$ However, low level of self-victimization strategies altered the relationship, $t(196) = 3.71$, $p < .001$, indicating that the participants with cons of offending significantly reported more action if they engaged in low level of Self-victimization strategies (see Figure 2.12.).

Table 2.50. Moderator Role of Defensive Strategies between Pros of Offending and Motivation to Change

DV	df	Fchange	β	t	R ²
A.Precontemplation					
1. Pros of Offending (Pros)	1, 198	4.68*	.15	2.16*	.02
2.Defesive Strategies	2, 196	13.09***			.14
Externalizing (JU)			.02	.27	
Victimization (PI)			.34	4.50***	
3.Interaction Terms	2, 194	1.01			.15
Pros X JU			.12	1.18	
Pros X PI			-.12	-1.33	
B.Contemplation					
1. Pros of Offending (Pros)	1, 198	.25	-.04	-.50	.00
2.Defesive Strategies	2, 196	.98			.01
Externalizing (JU)			-.06	-.68	
Victimization (PI)			.11	1.40	
3.Interaction Terms	2, 194	1.01			.02
Pros X JU			-.14	-1.28	
Pros X PI			.12	-1.24	
C.Action					
1. Pros of Offending (Pros)	1, 198	2.05	-.10	-1.43	.01
2.Defesive Strategies	2, 196	2.66			.04
Externalizing (JU)			-.06	-.74	
Victimization (PI)			.18	2.29*	
3.Interaction Terms	2, 194	1.15			.05
Pros X JU			-.16	-1.50	
Pros X PI			.07	.72	
D.Maintenance					
1. Pros of Offending (Pros)	1, 198	2.99	.12	1.73	.02
2.Defesive Strategies	2, 196	6.44**			.08
Externalizing (JU)			.12	1.49	
Victimization (PI)			.18	2.31*	
3.Interaction Terms	2, 194	1.68			.09
Pros X JU			-.19	-1.82	
Pros X PI			.12	1.21	

$p < .05$, ** $p < .01$, *** $p < .001$

Table 2.51. Moderator Role of Defensive Strategies between Cons of Offending and Motivation to Change

DV	df	Fchange	β	t	R ²
A.Precontemplation					
1. Cons of Offending (Cons)	1, 198	.02	.01	.13	.00
2.Defesive Strategies	2, 196	15.13***			.13
Externalizing (JU)			.05	.67	
Victimization (PI)			.34	4.50***	
3.Interaction Terms	2, 194	3.48*			.16
Cons X JU			-.08	-.99	
Cons X PI			-.13	-1.72	
B.Contemplation					
1. Cons of Offending (Cons)	1, 198	10.06**	.22	3.17**	.05
2.Defesive Strategies	2, 196	.71			.06
Externalizing (JU)			-.05	-.66	
Victimization (PI)			.09	1.19	
3.Interaction Terms	2, 194	2.74			.08
Cons X JU			.05	.67	
Cons X PI			-.18	-2.30*	
C.Action					
1. Cons of Offending (Cons)	1, 198	7.42**	.19	2.73**	.04
2.Defesive Strategies	2, 196	2.20			.06
Externalizing (JU)			-.09	-1.15	
Victimization (PI)			.16	2.09	
3.Interaction Terms	2, 194	3.16*			.09
Cons X JU			.04	.44	
Cons X PI			-.19	-2.40*	
D.Maintenance					
1. Cons of Offending (Cons)	1, 198	5.39*	.16	2.32*	.03
2.Defesive Strategies	2, 196	8.22***			.10
Externalizing (JU)			.15	2.00*	
Victimization (PI)			.17	2.16*	
3.Interaction Terms	2, 194	2.52			.13
Cons X JU			-.08	-1.08	
Cons X PI			-.10	-1.25	

$p < .05$, ** $p < .01$, *** $p < .001$

Note. Significant interaction terms were indicated with bold.

Table 2.52. Slope Analyses for Self-Victimization Strategies Moderating the Relationship between Cons of Offending and Contemplation and Action

DV	Constant	df	F	R ²	B	SE	β	t
A.DV = Contemplation								
1.CONS	28.398	3, 196	5.51***	.08	.05	.06	.07	.78
PI-High					.04	.05	.06	.93
CONS X PI-High					-.01	.01	-.21	-2.29*
2.CONS	18.759	3, 196	5.51***	.08	.25	.06	.36	3.88***
PI-Low					.04	.05	.06	.93
CONS X PI-Low					-.01	.01	-.21	-2.29*
B.DV = Action								
1.CONS	31.296	3, 196	5.78***	.08	.02	.07	.03	.27
PI-High					.08	.05	.12	1.69
CONS X PI-High					-.01	.01	-.24	-2.54**
2.CONS	19.294	3, 196	5.78***	.08	.25	.07	.35	3.71***
PI-Low					.08	.05	.12	1.69
CONS X PI-Low					-.01	.01	-.24	-2.54**

* $p < .05$, ** $p < .01$, *** $p < .001$

Note. CONS = Cons of Offending, PI = Self-Victimization Strategies.

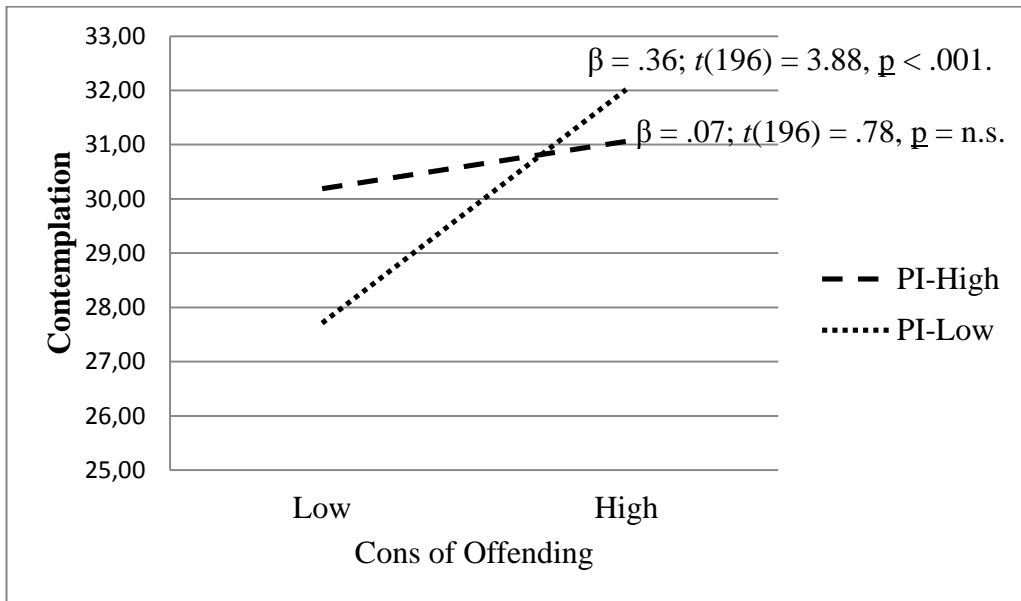


Figure 2.11. Moderator Role of the Self-victimization strategies (PI) between Cons of Offending and Contemplation

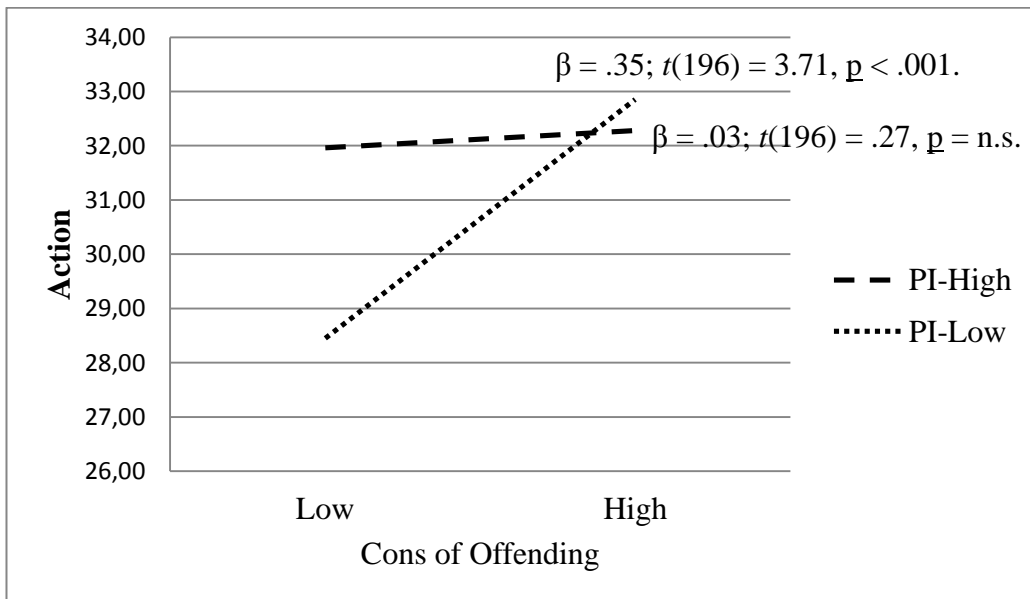


Figure 2.12. Moderator Role of the Self-victimization strategies (PI) between Cons of Offending and Action

2.2.5. Discussion

2.2.5.1. Factors Associated with Criminal Thinking-Assumptions

Turning back to the findings on the correlates of CTS-Assumptions reported in Study 1.A, Power-Oriented Assumptions and Injustice-Oriented Assumptions were commonly found to be associated with external locus of control (both general score and dimensions such as belief in chance, insignificance of struggle, and belief in an unfair world). The results of the current study indicated that, after controlling for the variance accounted for by the associated demographic variables and basic personality traits, Power-Oriented Assumptions was found to be related only to insignificance of struggle, whereas Injustice-Oriented Assumptions was found to be related only to belief in an unfair world. This finding further supports the idea presented in the heuristic formulation that Power and Injustice oriented assumptions might be emerging from separate (but inter-related) core-beliefs. In addition, it was discussed in the previous study that Power-Oriented Assumptions might be related to the narcissistic personality characteristics. However the findings of the present study did not support the previous research, revealing insignificant results for the association between agreeableness, self-esteem, and Power-Oriented Assumptions. A possible explanation for this might be that an interaction of neuroticism and negative valence (i.e., low self-worth) might be eligible to explain the association. Alternatively, participants with Power-Oriented Assumptions might be vulnerable to develop narcissistic overcompensation strategies; still they might not necessarily convey narcissistic personality characteristics. Furthermore, Power-Oriented Assumptions yielded a positive association with pros of offending, whereas Injustice-Oriented Assumptions did not. The reason for this is not clear but it may have something to do with the impact of imprisonment experience. As discussed in the previous study, imprisonment is the time period when the offenders encounter with the negative consequences of criminality the most. Taking into account the finding that Injustice-Oriented Assumptions are rather related to the level of stress in prison and low level of indirect coping, participants with Injustice-Oriented Assumptions might be more prone to experience the negative consequences of offending. On the other hand, participants with Power-Oriented Assumptions might be perpetuating their over-compensatory strategies to cope with the “powerlessness” schema and

decreased self-worth. Therefore, they might be preoccupied with themselves rather than conceiving the negative consequences of offending. Lastly, Cold-Heartedness provided significant negative associations only with agreeableness and conscientiousness. This is a surprising finding providing that Cold-Heartedness was previously observed to be highly related to internal locus of control. Hence, it is suggested that, the relationship between internal locus of control and emotional repression is explained by the aforementioned personality dimensions.

2.2.5.2. Factors Associated with Criminal Thinking-Defensive Strategies

Referring back to the previous study, the two defensive strategies (i.e., Externalizing & Trivializing and Self-Victimization Strategies) were found to commonly display a number of factors. Conversely, the present study yielded some discriminatory findings. For instance, Externalizing and Trivializing Strategies were found to be associated with negative valence and belief in an unfair world, whereas Self-Victimization Strategies were found to be related to neuroticism, openness to experience, and insignificance of struggle. It is probable therefore that Externalizing and Trivializing might be maladaptive strategies aiming at increasing the self-worth in order to survive (i.e., have power) in a world which is characterized with injustice. Alternatively, offenders might be engaging in Externalizing and Trivializing Strategies especially when they encounter with injustice. On the other hand, Self-Victimization Strategies were more possibly related to a general feeling of helplessness and hopelessness, indicating that whatever they do they won't be able to succeed (i.e., be victimized). A significant positive association between openness to experience and Self-Victimization Strategies further supports the hypothesis that these offenders might be more prone to engaging in risky situations, where they are not able to defend themselves in adaptive means. Therefore, they might find themselves in situations which consequently support their Self-victimization strategies. What is surprising is that Self-Victimization Strategies were found to be positively associated with self-esteem. This result might be explained by the fact that, offenders engage in Self-Victimization Strategies when they are trying to explain the negative consequences despite the fact that they feel they are inherently good. However, they might be engaging in Externalizing and Trivializing Strategies when they devalue themselves, yet they need to over-compensate this experience.

Another interesting finding was that Externalizing and Trivializing Strategies were found to be related only with Power-Oriented Assumptions, whereas Self-Victimization Strategies were found to be associated with both Power-Oriented and Injustice-Oriented Assumptions. Therefore, engaging in Self-Victimization Strategies might be a more common condition, indirectly supportive of different offence-supportive assumptions. At the same time it should be noted that, cold-heartedness was found to be unrelated with Externalizing and Trivializing Strategies, whereas it was found to be negatively associated with Self-Victimization. Thus, it is important to bear in mind the possible caveat that, cold-heartedness might be explained by a different set of assumptions and strategies. In other words, cold-heartedness should be kept in mind while applying the formulation that was suggested in the introduction section (see Chapter 1).

2.2.5.3. Factors Associated with Decisional Balance

Pros of offending was previously found to be related to a set of demographic factors that generally represent a criminal and/or deviant lifestyle (i.e., alcohol use, substance use, experience of living in the street, history of non-violent crime, and history of violent crime). Out of these factors only experience of living in the street and substance use were found to be positively contributing to pros of offending. It should be noted that both living in the street (Mallett, Rosenthal, Keys, & Averill, 2010) and substance use (Alridge et al., 2011) somewhat require a deviant social network. It can thus be suggested that criminality might be normalized within these social networks and it might be more difficult for those offenders to change their minds about the positive aspects of offending, because of their learned experiences. Another finding that supports this suggestion is that, negative valence and agreeableness were found to be associated with pros of offending (in opposite directions). In the previous study, pros of offending was found to be related to a variety of personality traits. However, high level of negative valence and low level of agreeableness might reflect a more rigid attitude. When the previous life experiences and the rigid personality characteristics were controlled, it was observed that participants with a belief in an unfair world were more prone to perceive pros of offending. Alternatively, taking into account that the assessments were conducted in the prison environment, participants who experienced unjust treatment during legal

proceedings or imprisonment might have perceived offending as more advantageous. Further work is required to establish this finding. In terms of offence-supportive assumptions, after controlling for the variance accounted for by the previous experiences, basic personality traits, and locus of control, only Power-Oriented Assumptions was found to be associated with pros of offending. This result supports the suggestions made in the previous section, indicating that participants with Power-Oriented Assumptions might be more preoccupied with themselves rather than conceiving the negative consequences of offending. However, the fact that the locus of control was controlled might also account for this finding. Finally, indirect coping was found to be negatively associated with pros of offending, indicating that a lack of social support might lead offenders to perceive offending as more advantageous (Cid & Martí, 2012).

Regarding cons of offending, one unanticipated finding was that neuroticism was observed to be positively contributing to the perception of negative consequences of offending. This result might be partly explained by the relationship between neuroticism and negative affect, indicating that encountering with the negative consequences of offending might have elevated the negative emotions, such as anxiety. This finding may help us to understand why offenders engage in self-defensive strategies despite they acknowledge the negative consequences of criminality. Another surprising finding was that cons of offending was observed to be associated with both conscientiousness and internal locus of control, but in the opposite directions. These concepts are both known to be related to “taking responsibility” (Farrall, 2009; Roberts, Jackson, Fayard, Edmonds, & Meints, 2009). Hence, it could conceivably be hypothesized that the participants with higher levels of conscientiousness might be more open to understand the negative consequences of their behavior. However, they might have difficulty in coping with the negative emotions that arise after encountering with these consequences. As a result, they might rely on “uncontrollability of the events” as a way to ease themselves of the burden of admitting the full responsibility of their offending behavior. In other words, it is suggested that while investigating the cognitive mechanisms of offending (e.g., assumptions, defensive strategies, positive and negative attributions), possible interference of negative emotions and coping should not be ruled out.

2.2.5.4. Factors Associated with Motivation to Change

The results of the current study basically revealed similar findings with that of concurrent analyses reported in Study 1.A. One unanticipated finding was that, self-esteem yielded a positive association with precontemplation. A possible explanation for this might be that, in the precontemplation stage, people generally report that they do not display any problem that needs to be treated (Prochaska & Norcross, 2003). Taking into account the positive contribution of insignificance of struggle to precontemplation, participants in this stage might have a tendency to attribute the negative consequences to the uncontrollable events and they might be thinking that, within this context they are no worse than others. As previously noted, self and environmental re-evaluation strategies point into the problem areas that might be controllable, and therefore promote the motivation to change. However, it is important to bear in mind that after gaining a sense of awareness, a decrease in self-esteem might accompany the discontinuation of initial resistance. The current findings further suggested that, issues about self-esteem might continue even in the maintenance stage, if not attended. This result notably makes sense taking into account the prison conditions, where it is more difficult for the offenders to observe the changes that they have made. In addition, imprisonment experience per se involves lots of factors that might be a threat for self-esteem, especially during the change process (Zamble & Porporino, 1988). This might also account for the findings reported in the previous study related to the feelings of hopelessness associated with the maintenance stage.

Current results further indicated that, participants in the precontemplation stage generally engaged in emotion-focused coping strategies and utilized less from indirect coping strategies. These findings are consistent with those of other research which suggest that resistance to change is characterized by a state of avoidance (Holtforth, Grawe, & Castonguay, 2006) and that people might further reject the social support that is available if they are not motivated to change (Cid & Martí, 2012). Conversely, participants in the maintenance stage were observed to engage less in the problem-focused coping strategies. This finding, together with the previous discussions made on maintenance, suggests that relapse-prevention

strategies that take into account the prison conditions and integrate problem-focused coping might be helpful for the offenders in the maintenance stage.

2.2.5.5. Mediator Role of Locus of Control between Offence-Supportive Assumptions and Motivation to Change

Very little was found in the literature about the impact of locus of control on motivation to change. Besides, the contribution of offence-supportive thoughts to the motivational processes is unknown, though it's reasonable to assume that criminal thinking would have an inhibitory role. The findings of the present study supported this assumption, and further indicated that this relationship might be explained by locus of control. Specifically, insignificance of struggle was found to mediate the relationship between power-oriented and injustice-oriented assumptions and precontemplation. This finding, while preliminary, suggests that therapeutic strategies aiming at motivating the offenders for change should carefully attend offenders' beliefs about the insignificance of struggle. Examples that support this idea were evident in the informal conversations made with the participants. For instance, while talking about desistance, participants frequently mentioned about several external factors that were out of their control but that had a strong negative influence on the desistance process. Some of these factors were related to the label of being ex-convict (e.g., difficulties in finding a job, engaging in a committed romantic relationship, having a respectful status in the community) or previous life experiences (e.g., not knowing how to keep oneself away from previous deviant relationships). Participants also indicated some factors that are related to the imprisonment experience (e.g., problems in the ward with other prison inmates, problems with the staff and/or the legal proceedings). Therefore, it is suggested that, during the initial precontemplation stage, therapeutic strategies should carefully attend these factors in order to build effective coping strategies.

Another important finding was that internal locus of control mediated the relationship between cold-heartedness and contemplation, action, and maintenance. It's recognized in the literature that gaining a sense of control and responsibility over the negative consequences of offending behavior is an important therapeutic step (Maruna, 2001). However, the findings in the current study indicate that if the offenders convey an un-empathetic attitude, a sense of control might have an inverse

impact. In this respect, there is abundant room for further progress in determining the effective therapeutic strategies in the case of cold-heartedness.

2.2.5.6. Moderator Role of Defensive Strategies between Offence-Supportive Assumptions and Motivation to Change

Defensive strategies that are directed to justify and normalize the criminal behavior are frequently indicated to be maladaptive (Maruna & Mann, 2006). However, Maruna and Mann (2006) challenged this view stating that defensive strategies might have a self-affirmative function. In parallel with the anticipation of Maruna and Mann (2006), findings of the present study revealed that, taking into account the offence-supportive assumptions, the impact of defensive strategies might vary. Specifically, in terms of action, externalizing and trivializing strategies were observed to operate as a booster in the case of low level of assumptions (both power-oriented and injustice-oriented assumptions). Hence, engaging in externalizing and trivializing strategies might be adaptive when the offenders displayed relatively low level of offence-supportive assumptions. On the other hand, in the case of high level of assumptions, externalizing and trivializing strategies have a depleting effect on motivation to change. This finding accords with earlier observations which highlight the maladaptive function of the defensive strategies. It is suggested, therefore, that externalizing and trivializing strategies might be maladaptive especially if they have a confirmatory function on the actively operating offence-supportive assumptions. However, these results need to be interpreted with caution, as the slope analyses did not yield significant results. Thus, it is recommended for further research that the dual function of defensive strategies should be clarified. Another important finding was that, in terms of the relationship between cold-heartedness and contemplation, self-victimization strategies revealed an opposite contribution. Accordingly, utilizing less from the self-victimization strategies had a booster effect in the case of low cold-heartedness, but it had a depleting effect in the case of high cold-heartedness. This result is important in two respects. First of all, it further supports the previous findings indicating that cold-heartedness has a different mechanism as compared to other offence-supportive assumptions. Secondly, it may be that, in the case of low level of offence-supportive assumptions, offenders benefitted more from the externalizing and trivializing strategies, whereas they benefitted less from the self-

victimization strategies. Discrepancy between externalizing and trivializing strategies and self-victimization strategies was further evident in relation to precontemplation. Accordingly, in the case of low injustice-oriented assumptions, externalizing and trivializing strategies increased the level of precontemplation. Moreover, not engaging in these strategies was not protective in the case of high injustice-oriented assumptions. On the other hand, self-victimization strategies seemed to have a protective role in the case of high injustice-oriented assumptions. Yet, it is important to bear in mind that the slopes were not significant.

2.2.5.7. Moderator Role of Defensive Strategies between Decisional Balance and Motivation to Change

Previous analyses failed to provide a significant result in terms of the moderator role of self-victimization strategies. However, the present findings revealed a significant impact, in terms of the relationship between cons of offending and contemplation and action stages. Specifically, it was observed that participants with cons of offending significantly reported more contemplation and action if they engaged in low level of self-victimization strategies. Taking into account the argument that the imprisonment is when the offenders experience the negative consequences of offending the most, it can be suggested that treatment approaches should attend on the self-victimization strategies and should focus on developing alternative means of coping. However, with an important caveat that, self-victimization strategies still seemed to be protective in the case of low cons of offending. It is therefore recommended that more research on this topic needs to be undertaken.

CHAPTER III

STUDY II

3.1. STUDY II.A: PSYCHOMETRIC PROPERTIES OF CRIMINAL THINKING-ASSUMPTIONS SCALE, CRIMINAL THINKING-DEFENSIVE STRATEGIES SCALE, STAGES OF CHANGE SCALE FOR CRIMINALS (SOCS-C), AND DECISIONAL BALANCE SCALE FOR CRIMINALS (DBS-C) AMONG JUVENILE OFFENDERS

3.1.1. Introduction

In recent years, there has been an increasing amount of literature on the criminal thinking styles of young offenders (e.g., Dembo, Turner, & Jainchill, 2007; Palmer & Hollin, 2004; Wallinius et al., 2011) and aggressive youth in general (e.g., Ragatz, Anderson, Fremouw, & Schwartz, 2011). These studies usually demonstrated that young people displayed more criminal thinking as compared to adults. However, we don't know whether the developmental concerns of young people influence the way they think about criminality. The issue becomes more critical taking into account the division of the criminal thinking concept into "assumptions" and "defensive strategies". A considerable amount of knowledge exists suggesting that adolescents are different from adults in many respects, for instance, in terms of cognitive development (Iselin, DeCoster, & Salekin, 2009; Moshman, 2011), identity development (Erikson, 1963), and concern in their lives (Arnett, 2007). Hence, taking an adult approach to the criminal thinking styles of adolescents might overlook the unsteady nature of cognitive and personality mechanisms in this developmental stage.

Numerous studies have attempted to explain youth's motivations for offending. Accordingly, achieving material goods, sensation seeking, seeking approval, and/or fear of rejection are commonly articulated motivations for offending among young people (Jordan, Rogers, Neumann, Norlander, 2013). However, investigating the issue in terms of decisional balance theory received limited attention, though a few studies exist regarding alcohol and substance misuse (e.g., Collins, Carey, & Otto, 2009; Elliott, Carey, & Scott-Sheldon, 2011). Jordan and

colleagues (2013) conducted an outstanding study which examined decisional balance of adolescent offenders for desisting from criminality. Considering the suggestions of Levesque (1999), focusing on the pros and cons of desisting (rather than pros and cons of offending) is more beneficial for subsequent therapeutic interventions. However, understanding the mechanisms of pros and cons of offending is crucially important in developing prevention strategies. Besides, attaining more knowledge about the contribution of pros and cons of offending to the motivational stages of change will definitely supplement the treatment programs. It is also noteworthy that, although the general mechanisms are not expected to differ according to the developmental stages, some variations are expected taking into account the unique concerns of adolescents. Hence it is suggested that, specific aspects of motivation to change and decisional balance among young offenders need to be clarified.

One of the issues that need to be taken into account while studying with adolescents is anger. Adolescence is characterized by a period when emotion regulation problems are commonly observed and anger is the most frequently articulated emotion that is difficult to manage (Faupel et al., 2011). Anger becomes more critical considering the aggressive and violent behaviors among young people (Csibi & Csibi, 2011). Therefore, anger was added in the present study in order to investigate its contribution to criminal thinking (i.e., assumptions and defensive strategies), motivation to change, and decisional balance.

3.1.2. Aim of the Study

The objectives of the present study were identifying the psychometric properties of Criminal Thinking Scales (CTS-Assumptions and CTS-Defensive Strategies), Stages of Change Scale for Criminals (SOCS-C), and Decisional Balance Scale for Criminals (DBS-C) with a sample of male juvenile offenders. Taking into account the findings revealed in Study 1, it is aimed to figure out the factors that adolescents share in common with adults and adolescents' unique characteristics. Finally, it is aimed to investigate aforementioned concepts in terms of trait anger, anger expression, and anger control.

3.1.3. Method

3.1.3.1. Participants

Before the study, the participants were asked to fill out the Demographic Information Form, which was the same as applied in Study I (see Appendix B). The form included questions concerning general characteristics, work and military experiences, familial characteristics and early childhood experiences, general health conditions, criminal history, and prison experiences.

3.1.3.1.1. General Characteristics

The sample of the present study consisted of 52 male juvenile offenders who were under arrest because of a variety of crimes in Muğla E Type Prison and Detention House ($n = 45$, 86.5%) and Eskişehir H Type Prison and Detention House ($n = 7$, 13.5%) (For details of the criminal history of participants, see Section 2.1.3.1.5). The ages of the participants ranged between 14 and 17 ($M = 16.42$, $SD = 0.87$).

Taking into account the education levels of the participants, three participants (5.8%) were illiterate, 17 participants (38.4%) had an education experience less than a secondary school degree, and 32 participants (61.6%) completed a secondary school degree. The frequency information regarding the education levels of the participants can be followed from Table 3.1.

Table 3.1. Education Levels of the Participants

	Frequency	Percentage (%)
1.Illiterate	3	5.8
2.Literate	2	3.8
3.Primary school-left	2	3.8
4.Primary school-graduated	2	3.8
5.Secondary school-left	11	21.2
6.Secondary school-graduated	21	40.4
7.High school-left	11	21.2
8.High school-graduated	-	-
9.University	-	-

Regarding the marital status, only 3.8 % of the participants ($n = 2$) were married, and 96.2 % of them ($n = 50$) were single. When they were asked about with whom they were living before they were imprisoned, 92.3 % of the participants indicated that they used to be living with their families ($n = 48$). Other participants (n

= 4, 7.6 %) reported that they used to be living either alone or with their relatives or friends. (For the details, see Table 3.2).

Table 3.2. Participants' Home Environment Before Imprisonment

	Frequency	Percentage (%)
Wife and/or children	2	3.8
Mother, father, siblings	46	88.5
Relative	1	1.9
Friend	1	1.9
Alone	2	3.8

3.1.3.1.2. Work and Military Experience

Only four of the participants (7.7 %) indicated that they did not have any work experience. According to the reports of 92.3 % of the participants who had work experience ($n = 48$), their age of beginning to work ranged between 7 and 16 ($M = 12.62$, $SD = 2.59$).

As all of the participants were under the age of 18, neither of them reported military service experience.

3.1.3.1.3. Familial Characteristics and Early Childhood Experiences

In terms of familial characteristics, participants were asked questions regarding their parents, their siblings, and whether they experienced any long term separation from the parents and/or violence in their home environment. Accordingly, 96.2 % of the participants ($n = 50$) indicated that both of their parents were alive, 1.9 % of the participants ($n = 1$) reported that his father was dead, and 1.9 % of the participants ($n = 1$) reported that he doesn't know whether his parents are alive or not.

Most of the participants ($n = 43$, 82.7 %) informed that their parents lived together. However, 15.4 % of them reported that their parents were either divorced or they were living separately. Regarding siblings; the number of siblings that the participants had ranged between 1 and 9 ($M = 3.88$, $SD = 2.20$) with a median of 3, and their order of birth ranged between 1 and 8 ($M = 2.54$, $SD = 1.75$), with a median of 2.

The participants were asked whether they experienced any long term separation from their parents in their childhood. Accordingly, 73.1% of the participants ($n = 38$) reported that they did not experience any long term separation

from their parents. However, 7.7% of the participants ($n = 4$) indicated that they were separated from their fathers, 7.7% of them ($n = 4$) reported that they were separated from both of their parents and lived with their relatives, and 11.5 % of the participants ($n = 6$) reported that they experienced long term separation from their parents either because of living in Society for the Protection of Children or for work (see Table 3.3. for the details). Moreover, while 25 % of the participants ($n = 13$) indicated that they experienced or witnessed violence in their family environment, 75 % of the participants ($n = 39$) did not report any experience of violence.

The percentage of the participants who reported that they had to live in the streets for some period during their childhood were 32.7 % ($n = 17$).

Taking into account the criminal history evident in the participants' family environment, while 76.9 % of the participants did not report any criminal record for their families, 13.5 % ($n = 7$) indicated that their fathers experienced imprisonment, and 9.6 % ($n = 5$) indicated that their siblings had criminal history.

Table 3.3. Participants' Long Term Separation from Their Parents during Childhood

	Frequency	Percentage (%)
No separation	38	73.1
Separation from mother	-	-
Separation from father	4	7.7
Separation from both, lived with relatives	4	7.7
Society for the Protection of Children	2	3.8
For work	4	7.7

3.1.3.1.4. General Health Conditions

Regarding previous health history, 17.3 % of the participants ($n = 9$) reported medical and 1.9 % of the participants ($n = 1$) reported psychiatric chronic illness. Besides, 9.6 % ($n = 5$) and 1.9 % ($n = 1$) of the participants indicated that they were currently receiving medical and psychiatric treatment, respectively.

Considering alcohol and substance use, 67.3% ($n = 35$) of the participants reported that they were using alcohol before imprisonment, and 22.9% of them ($n = 8$) indicated that they might had alcohol dependency problem. Moreover, the percentage of the participants who reported that they used illegal substance at least once before imprisonment was 32.7% ($n = 17$).

Finally, while 28.8% of the participants ($n = 15$) reported suicide, 51.9% of the participants ($n = 27$) reported self-harm history.

3.1.3.1.5. Criminal History and Prison Experience

The sample included one sentenced participant (1.9 %), one detainee participant under sentence (1.9 %), and 50 detainee participants (96.2 %). The prison term of the participant who was under sentence was 4.5 years. While 5.8 % of the participants ($n = 3$) reported that they had previously been imprisoned, most of the participants ($n = 49$, 94.2 %) indicated that they did not have any previous criminal history. The recent crimes that the participants were accused of are listed in Table 3.4. Accordingly, 34.6 % of the participants ($n = 18$) were accused of a non-violent crime (i.e., plundering, grab, or burglary), 30.8 % of the participants ($n = 16$) were accused of a violent crime (i.e., murder, attempted murder, or physical injury), 1.9 % of the participants ($n = 1$) was accused of an illegal substance related crime (i.e., being a drug dealer), and 7.7 % of the participants ($n = 4$) were accused of a sexual crime. It should be noted that 4 participants were accused of more than one type of crime. On the other hand, 33.7 % ($n = 17$) of the participants refused to declare the type of crime that they were accused of.

Finally, while 63.5 % of the participants ($n = 33$) reported that they voluntarily attend to psychosocial service, 36.5 % of the participants ($n = 19$) indicated that they did not apply for psychological help in the prison.

Table 3.4. Participants' Latest Crimes

Type of Crime	Frequency	Percentage (%)
1) Non-violent	18	34.6
Plundering	1	1.9
Grab	11	21.2
Burglary	6	11.5
2) Violent	16	30.8
Murder	7	13.5
Attempted Murder	2	3.8
Physical Injury	7	13.5
3) Illegal Substance		
Drug dealer	1	1.9
4) Sexual	4	7.7
Refused to declare	17	33.7

Note. 4 participants were accused of more than one type of crime.

3.1.3.2. Measures

In the present study, the psychometric properties of Criminal Thinking Scale (Assumptions and Defensive Strategies), Stages of Change Scale for Criminals (SOCS-C), and Decisional Balance Scale for Criminals (DBS-C) are investigated in the juvenile prisoner sample. Adaptation studies of the scales were presented in Study 1.A. In order to investigate the validity of the instruments, participants were also asked to answer Rosenberg Self Esteem Scale (RSE), Locus of Control Scale (LOC), Basic Personality Traits Inventory (BPTI), and Trait Anger / Anger Expression Inventory (TAEXI).

3.1.3.2.1. Criminal Thinking Scale (CTS)

The information regarding Criminal Thinking Scales is explained in detail in the method section of Study I. A (see Section 2.1.3.2.1). Study I consisted of a sample of adult offenders. However, it should be noted that there are also studies that utilized from CTS in juvenile forensic samples (e.g., Dembo et al., 2007).

According to the results of Study I. A., CTS was suggested to be separated into two scales; CTS-Assumptions, which consisted of “power oriented assumptions” (i.e., EN+PO), “Injustice-Oriented Assumptions” (i.e., CR), and “cold-heartedness”, and CTS-Defenses, which consisted of “externalizing and trivializing strategies” (i.e., JU) and “Self-victimization strategies ” (i.e., PI) (for details see Section 2.1.4.2.). In the present study, the preliminary results revealed Cronbach alpha values of .71, .25, .75, .52, .43 for EN+PO, CR, CH, JU, and PI, respectively. Taking into account that the reliability values for CR, JU, and PI scales were considerably low, CR was excluded from further analyses and the total score was utilized for the defensive strategies (i.e., JU and PI), for which the reliability value was .67 (see Section 3.1.4.2.1. for details).

3.1.3.2.2. Stages of Change Scale for Criminals (SOCS-C)

The information regarding Stages of Change Scale for Criminals is explained in detail in the method section of Study I. A (see Section 2.1.3.2.2). In the present study, the preliminary results revealed Cronbach alpha values of .43, .78, .82, and .72 for precontemplation, contemplation, action, and maintenance scales, respectively. Regarding the precontemplation sub-scale, it was observed that some of the items yielded negative correlations with other items. Therefore, the internal consistency

coefficient was re-computed after the exclusion of these items. The final Cronbach alpha value of the precontemplation sub-scale was .62 (see Section 3.1.4.3.1. for details).

3.1.3.2.3. Decisional Balance Scale for Criminals (DBS-C)

The information regarding Decisional Balance Scale for Criminals is explained in detail in the method section of Study I. A (see Section 2.1.3.2.3). In the present study, the preliminary results revealed a Cronbach alpha value of .78 for both pros and cons scales (see Section 3.1.4.4.1. for details).

As it is the case in Study I.A, in order to further reveal the positive and negative attributions attached to the offending behavior, additional close and open-ended questions were asked.

3.1.3.2.4. Rosenberg Self-Esteem Scale (RSE)

The information regarding Rosenberg Self-Esteem Scale is explained in detail in the method section of Study I. A (see Section 2.1.3.2.4). In the present study, a Cronbach alpha value of .77 for the total RSE score was obtained.

3.1.3.2.5. Locus of Control Scale (LOC)

It is known that Locus of Control Scale is also extensively being used with adolescent samples (e.g., Güvenç, Aktan, & Yalçın, 2010; Kaya, 2007). The information regarding LOC is explained in detail in the method section of Study I. A (see Section 2.1.3.2.6). In the present study, Cronbach alpha values of .88 for the total LOC score and .89, .73, .75, .53, and .57 were obtained for the subscales (i.e., internal locus of control, belief in chance, insignificance of struggle, fatalism, and belief in an unfair world, respectively).

3.1.3.2.6. Basic Personality Traits Inventory (BPTI)

The information regarding Basic Personality Traits Inventory is explained in detail in the method section of Study I. A (see Section 2.1.3.2.7). In the present study, Cronbach alpha value of .51, .89, .81, .57, .71, and .60 were obtained for extraversion, agreeableness, conscientiousness, neuroticism, openness to experience, and negative valence, respectively.

3.1.3.2.7. Trait Anger / Anger Expression Inventory (TAEXI)

TAEXI is a 34 item, 4-point likert type scale that aims to assess anger as trait, and different expressions of anger (Spielberger, Krasner, & Solomon, 1988). Three

types of anger expression are defined; which are Anger Expression-Out, Anger Expression-In, and Anger-Control. Anger-Control refers to controlling anger through strategies like suppression, rationalization, and denial.

The original scale is developed by Spielberger (1988). Accordingly, the scale revealed good psychometric properties. For instance, the internal consistency coefficients were found to be ranging from .82 to .90 for Trait Anger, and .76, .74, and .85 for Anger Expression-Out, Anger Expression-In, and Anger-Control, respectively.

TAEXI was adapted to Turkish by Özer (1994) and the reliability measures of the instrument were obtained from various samples (e.g., university students, high school students, nursing students, “neurotic” patients group). Accordingly, Özer reported internal consistency coefficient range of .67-.92 for Trait Anger, .69-.91 for Anger Expression-Out, .58-.76 for Anger Expression-In, and .80-.90 for Anger-Control.

Besides adults, TAEXI is also being used with adolescents (e.g., Arslan, 2009; Csibi & Csibi, 2011).

The answer options in TAEXI range from (1) “never” to (4) “always” and high scores reflect higher characteristics on the assessed dimension. The first 10 items stand for Trait Anger. The second section of the scale is used to assess Anger Expression. Hence, items 2., 7., 9., 12., 14., 19., 22., and 23 refer to Anger Expression-Out, items 3., 5., 6., 10., 13., 16., 17., and 21 refer to Anger Expression-In, and items 1., 4., 8., 11., 15., 18., 20., and 24 refer to Anger-Control.

In the present study, the internal consistency coefficients for Trait Anger, Anger Expression-Out, Anger Expression-In, and Anger Control were found to be .81, .77, .78, and .73, respectively (see Appendix M for TAEXI).

3.1.3.3. Procedure

Before the study, formal permissions were obtained from Middle East Technical University Ethical Committee and Ministry of Justice General Directorate of the Prisons and Detention Houses.

The juvenile offenders who were under arrest or sentenced due to a political crime were not included in the present study. The participants were selected through convenience sampling method. After the presentation of the informed consent (see

Appendix A) and taking the permission of the participant, the inventory package was provided to the participant. The completion of the package lasted for approximately 30 minutes, varying according to educational levels of the participants.

3.1.3.4. Statistical Analyses

In the present study, data were analyzed through the Statistical Package of Social Sciences (SPSS), version 15 for Windows. Participants who had more than 10 % missing cases in at least one of the inventories were excluded from the study. For the remaining missing data, the cases' average scores for that instrument were replaced.

3.1.4. Results

In the results section, initially the descriptive information regarding the scales and subscales is presented. Afterwards, results considering the reliability and validity information of the adapted scales are presented, in separate sections for each scale. In order to investigate the reliability, Cronbach alpha coefficients and item-total correlations were computed. Besides, correlational analyses were conducted for concurrent validity, and t-test or MANOVA were employed for criterion validity, in each section. Finally, in order to investigate the associated factors with the additional items of positive and negative attributions of offending behavior, Chi-Square, t-test and MANOVA were employed.

3.1.4.1. Descriptive Statistics

Descriptive information regarding the CTS-Assumptions Scales (i.e., EN+PO and CH), total score of the CTS-Defensive Strategies Scale, Stages of Change Scale for Criminals (SOCS-C), Decisional Balance Scale for Criminals (DBS-C), Rosenberg Self-Esteem Scale (RSE), Locus of Control Scale (LOC), Basic Personality Traits Inventory (BPTI), and Trait Anger / Anger Expression Inventory (TAEXI) are presented in Table 3.5.

Table 3.5. Descriptive information regarding the measures of the study

Variables	Alpha Coefficient	Mean	SD	Min-Max
CTS-Assumptions				
Power-oriented assumptions (EN+PO)	.71	36.73	7.96	19-60
Cold-Heartedness (CH)	.75	10.29	4.37	5-23
CTS-Defensive Strategies				
SOCS-C				
Precontemplation	.62	13.36	3.76	7-24
Contemplation	.78	29.55	5.97	10-40
Action	.82	28.64	6.52	15-40
Maintenance	.72	25.77	5.72	12-40
DBS-C				
Pros	.86	21.84	8.48	12-41
Cons	.78	41.05	9.18	16-56
RSE	.77	29.14	4.86	15-40
LOC				
Internal Locus of Control	.89	46.94	12.73	18-82
Belief in Chance	.73	32.66	6.97	20-55
Insignificance of Struggle	.75	28.10	7.25	14-46
Fatalism	.53	10.56	2.89	4-15
Belief in an Unfair World	.57	13.53	4.01	7-23
BPTI				
Extraversion	.51	25.65	4.59	18-36
Agreeableness	.89	33.21	6.15	18-40
Conscientiousness	.81	31.00	5.90	15-40
Openness to Experience	.57	25.33	5.54	13-38
Neuroticism	.71	23.36	4.28	10-30
Negative Valence	.40	12.71	3.39	8-24
TAEXI				
Trait Anger	.81	22.45	6.59	10-36
Anger Expression-In	.77	16.81	5.18	10-31
Anger Expression-Out	.78	17.12	5.24	9-32
Anger Control	.73	21.95	4.41	13-31

Note. SOCS-C = Stages of Change Scale for Criminals, DBS-C = Decisional Balance Scale for Criminals, RSE = Rosenberg Self-Esteem Scale, LOC = Locus of Control Scale, BPTI = Basic Personality Traits Inventory, TAEXI = Trait Anger / Anger Expression Inventory

3.1.4.2. Psychometric Properties of CTS-Assumptions and CTS-Defensive Strategies

3.1.4.2.1. Reliability of CTS-Assumptions and CTS-Defensive Strategies

The internal consistency coefficients (i.e., Cronbach alpha coefficients) and the ranges for the item-total correlations for the subscales as well as the total scores of CTS-Assumptions (i.e., EN+PO and CH) and the CTS-Defensive Strategies

Scales are provided in Table 3.6.A and 3.6.B, respectively. In terms of CTS-Assumptions, Injustice-Oriented Assumptions (CR) was observed to have a considerably low internal consistency coefficient (see Table 3.6.A). Therefore, CR was excluded from further analyses and only power-oriented assumptions (EN+PO) and cold-heartedness (CH) were utilized. Moreover, the subscales of CTS-Defensive Strategies scale were found to have relatively low internal consistency coefficients. However, an acceptable value was obtained for the total score ($\alpha = .67$). Therefore, the total score of defensive strategies was utilized in the further analyses.

The item-total correlation coefficients ranged from .08 to .48 for EN+PO, from .43 to .58 for CH, and from .07 to .51 for CTS-Defensive Strategies. There were some items that received considerably low item-total correlation coefficients in EN+PO and total CTS-Defensive Strategies scales. Specifically, Item 2 and Item 22 (in EN+PO and CTS-Defensive Strategies scales, respectively) received relatively low correlations with other items (lower than .10), indicating that these items might not have been clearly understood by the participants.

Table 3.6. Reliability Information Regarding CTS

	A. Internal Consistency Coefficients	B. Item-Total Correlation Range
CTS-Assumptions (total)	.68	.01-.53
EN+PO	.71	.08-.48
CH	.75	.43-.58
CR	.25	.03-.30
CTS-Defensive Strategies (total)	.67	.07-.51
JU	.52	.22-.39
PI	.43	.04-.37

Note 1. EN+PO = Power-oriented assumptions, CH = Cold-heartedness

Note 2. The scales that were included in further analyses were indicated with bold.

3.1.4.2.2. Validity of CTS-Assumptions and CTS-Defensive Strategies

3.1.4.2.2.1. Concurrent Validity of CTS-Assumptions and CTS-Defensive Strategies

In order to investigate the concurrent validity of CTS, the subscales of CTS-Assumptions (i.e., Power-oriented assumptions and Cold-Heartedness) and the total score of the CTS-Defensive Strategies Scale were subjected to correlational analysis with demographic and other study variables. For the concurrent validity information, zero-orders were taken into account, where the Pearson Correlation Coefficient is equal to or exceeds .20.

Table 3.7 presents the Pearson Correlations with demographic variables. Accordingly, power-oriented assumptions revealed significant zero-order correlations with having alcohol usage problems ($r = .46, p < .001$), having a history of self-harming behavior ($r = .28, p < .05$), having a previous criminal record ($r = .48, p < .001$), and history of non-violent crime ($r = .30, p < .05$). Besides, cold-heartedness revealed significant association only with the history of non-violent crime ($r = .29, p < .05$). On the other hand, CTS-Defenses revealed significant zero-order correlations with alcohol usage problems ($r = .28, p < .05$), experience of violence in the family ($r = .28, p < .05$), experience of living in the streets ($r = .32, p < .05$), and having a previous criminal record ($r = .28, p < .05$).

Table 3.8 presents correlations with the personality and locus of control variables. Accordingly, power-oriented assumptions revealed significant zero-order correlations with neuroticism ($r = .30, p < .05$), locus of control ($r = .34, p < .05$), belief in chance ($r = .41, p < .01$), insignificance of struggle ($r = .39, p < .01$), and belief in an unfair world ($r = .53, p < .001$). However cold-heartedness revealed significant associations with agreeableness ($r = -.48, p < .001$), conscientiousness ($r = -.46, p < .001$), openness to experience ($r = -.45, p < .001$), locus of control ($r = -.36, p < .01$), internal locus of control ($r = .49, p < .001$), and fatalism ($r = -.35, p < .01$). Furthermore, CTS-Defenses revealed significant zero-order correlations with negative valence ($r = .36, p < .01$), external locus of control ($r = .48, p < .001$), belief in chance ($r = .46, p < .001$), insignificance of struggle ($r = .52, p < .001$), fatalism ($r = .31, p < .05$), and belief in an unfair world ($r = .35, p < .05$).

Table 3.9 presents correlations with other study variables. Accordingly, power-oriented assumptions revealed significant zero-order correlations with pros of offending ($r = .41, p < .01$), cons of offending ($r = .35, p < .01$), trait anger ($r = .39, p < .01$), anger expression-in ($r = .48, p < .001$), and anger expression-out ($r = .30, p < .05$). However, cold-heartedness revealed significant associations with contemplation ($r = -.74, p < .001$), action ($r = -.67, p < .001$), maintenance ($r = -.50, p < .001$), pros of offending ($r = .35, p < .01$), cons of offending ($r = -.39, p < .01$), and anger control ($r = -.43, p < .01$). Furthermore, CTS-Defenses revealed significant zero-order associations with precontemplation ($r = .46, p < .001$), contemplation ($r = .30, p < .05$), action ($r = .43, p < .001$), maintenance ($r = .55, p < .001$), cons of offending ($r = .39, p < .01$), self-esteem ($r = -.28, p < .05$), and anger-expression in ($r = .30, p < .05$).

Table 3.7. Pearson's Correlations between CTS Scales and Demographic Variables

VARIABLES	Power-oriented assumptions	Cold-Heartedness	CTS-Defensive Strategies
Age	.24	-.33	.17
Education	-.18	-.15	-.08
Unemployment	.02	-.01	-.14
Age of beginning to work	-.10	-.17	-.19
Number of siblings	.15	-.08	.05
Order of birth	-.07	.15	-.03
Alcohol Use	-.02	-.03	.00
Alcohol Usage Problem	.46***	-.01	.28*
Substance Use	.17	.21	.05
Separation from Family	.04	-.21	.08
Violence in Family	.23	-.02	.28*
Living in the Street	.19	-.18	.32*
Suicide	.22	-.15	.24
Self-Harm	.28*	-.09	.12
Criminal history	.48***	.14	.28*
Criminal history of family members	.13	.25	.03
Non-Violent Crime	.30*	.29*	.21
Violent Crime	.25	.24	-.05
Sexual Crime	.10	.01	-.04

* $p < .05$, ** $p < .01$

Note 1. The significant correlation coefficients that are equal to or larger than .20 were printed in bold.

Table 3.8. Pearson's Correlations between CTS Scales and Personality and Locus of Control Variables

VARIABLES	Power-oriented assumptions	Cold-Heartedness	CTS-Defensive Strategies
E	.00	.19	-.12
A	-.12	-.48***	-.01
C	-.01	-.46***	-.00
N	.30*	-.14	.20
O	-.09	-.45***	.01
NV	.08	.17	.36**
LOC	.34*	-.36**	.48***
INTLOC	-.12	.49***	-.27
LOC-C	.41**	-.20	.46***
LOC-S	.39**	-.10	.52***
LOC-F	.09	-.35**	.31*
LOC-U	.53***	-.06	.35*

* $p < .05$, ** $p < .01$, *** $p < .001$

Note 1. E = Extraversion, A = Agreeableness, C = Conscientiousness, N = Neuroticism, O = Openness to Experience, NV = Negative Valence, LOC = Locus of Control, INTLOC = Internal locus of control, LOC-C = Belief in chance, LOC-S = Insignificance of struggle, LOC-F = Fatalism, LOC-U = Belief in an unfair world.

Note 2. The significant correlation coefficients that are equal to or larger than .20 were printed in bold.

Table 3.9. Pearson's Correlations between CTS Scales and Other Study Variables

VARIABLES	Power-oriented assumptions	Cold-Heartedness	CTS-Defensive Strategies
PRECON	.26	-.23	.46***
CONT.	-.02	-.74***	.30*
ACTION	.15	-.67***	.43***
MAINT.	.16	-.50***	.55***
PROS	.41**	.35**	.22
CONS	.35**	-.39**	.39**
RSE	-.19	-.26	-.28*
TRAIT ANGER	.39**	.05	.17
ANGER-IN	.48***	-.07	.30*
ANGER-OUT	.30*	.16	.09
ANGER CONTROL	-.15	-.43**	.17

* $p < .05$, ** $p < .01$, *** $p < .001$.

Note 1. PRECON = Precontemplation, CONT = Contemplation, ACTION = Action, MAINT = Maintenance, PROS = Pros of offending, CONS = Cons of offending, RSE = Self-Esteem, ANGER-IN = Anger Expression-In, ANGER-OUT = Anger Expression-Out

Note 2. The significant correlation coefficients that are equal to or larger than .20 were printed in bold.

3.1.4.2.2.2. Criterion Validity of CTS-Assumptions and CTS-Defensive Strategies

In order to examine the criterion validity of CTS, initially, stages of change (i.e., precontemplation, contemplation, action, maintenance), decisional balance (i.e., pros and cons of offending), locus of control and dimensions of locus of control (i.e., internal locus of control, belief in chance, insignificance of struggle, fatalism, and belief in an unfair world), basic personality traits (i.e., extraversion, agreeableness, conscientiousness, neuroticism, openness to experience, and negative valence), self-esteem, trait anger and dimensions of anger expression (i.e., anger expression-in, anger expression-out, and anger control) were categorized into 2 levels (i.e., low and high; for descriptive information regarding the categories, see Table 3.10). Afterwards the differences between these groups were examined on the basis of their CTS-Assumptions (i.e., EN+PO and CH) scores and the total score of CTS-Defensive Strategies. In order to test these comparisons, subsequent MANOVAs were conducted for the factors of CTS-Assumptions (i.e., EN+PO and CH) and separate independent samples t-tests were employed for the total score of CTS-Defensive Strategies.

Table 3.10. Descriptive Information of the Variable Categories

Variables	Categories	n	Range	Mean	SD
Self-Esteem	Low	28	15-29	25.64	2.93
	High	24	30-40	33.21	3.18
Precontemplation	Low	23	7-12	9.96	1.33
	High	29	13-24	16.05	2.70
Contemplation	Low	27	10-29	25.15	4.39
	High	25	30-40	34.31	3.08
Action	Low	27	15-29	23.59	4.67
	High	25	30-40	34.09	2.67
Maintenance	Low	27	12-26	21.74	4.28
	High	25	27-40	30.12	3.44
Decisional Balance-Pros	Low	28	12-20	15.31	2.66
	High	24	21-41	29.45	6.21
Decisional Balance-Cons	Low	28	16-42	34.39	6.93
	High	24	43-56	48.82	3.68
Extraversion	Low	30	18-26	22.48	2.78
	High	22	27-36	29.98	2.54
Agreeableness	Low	26	18-34	28.50	5.34
	High	26	35-40	37.91	1.60
Conscientiousness	Low	30	15-32	27.23	4.68
	High	22	33-40	36.13	2.53
Neuroticism	Low	26	13-25	21.07	3.35
	High	26	26-38	29.59	3.68
Openness to Experience	Low	26	10-23	20.06	3.43
	High	26	24-30	26.65	1.74
Negative Valence	Low	31	8-12	10.61	1.43
	High	21	13-24	15.81	3.04
Locus of Control	Low	28	85-145	128.81	15.28
	High	24	146-207	163.58	15.36
Internal Locus of Control	Low	27	18-47	37.57	7.45
	High	25	48-82	57.05	8.90
Belief in Chance	Low	27	20-33	27.37	3.59
	High	25	34-55	38.38	4.87
Insignificance of Struggle	Low	27	14-27	22.70	3.67
	High	25	28-46	33.92	5.40
Fatalism	Low	26	4-10	8.19	1.70
	High	26	11-15	12.92	1.57
Belief in an Unfair World	Low	27	7-13	10.30	1.64
	High	25	14-23	17.02	2.62
Trait Anger	Low	27	10-21	17.04	3.12
	High	25	22-36	28.29	3.63
Anger Expression-In	Low	27	10-16	12.67	2.06
	High	25	17-31	21.29	3.48
Anger Expression-Out	Low	28	9-16	13.22	2.01
	High	24	17-32	21.68	3.99
Anger Control	Low	28	13-22	18.81	2.79
	High	24	23-31	25.63	2.80

Table 3.10 Cont'd

Variables	Categories	n	Range	Mean	SD
Power-oriented assumptions	Low	24	19-35.83	30.12	4.17
	High	28	36-60	42.40	5.72
Cold-Heartedness	Low	27	5-9	7.07	1.82
	High	25	10-23	13.76	3.59
CTS-Defensive Strategies	Low	30	17-35	29.16	5.24
	High	22	36-48	40.97	4.02

As can be followed in Table 3.11, MANOVA results yielded a significant difference in terms of pros of offending, Multivariate $F(2, 49) = 11.42, p < .001, \eta^2 = .32$, Wilk's Lambda = .68. Accordingly, when the univariate analyses with Bonferroni correction ($p = .05/2 = .025$) were examined, a significant result was obtained for power-oriented assumptions, $F(1, 50) = 13.65, p < .025$, indicating that participants who reported more pros of offending ($M = 40.67$), also reported more power-oriented assumptions as compared to the participants who reported less pros of offending ($M = 33.35$). Furthermore, a significant result was obtained for cold-heartedness, $F(1, 50) = 6.50, p < .025$, indicating that participants who reported more pros of offending ($M = 11.88$), also reported more cold-heartedness as compared to the participants who reported less pros of offending ($M = 8.93$). MANOVA results further provided a significant difference in terms of contemplation, Multivariate $F(2, 49) = 10.93, p < .001, \eta^2 = .31$, Wilk's Lambda = .69. Accordingly, a significant difference was obtained for cold-heartedness, $F(1, 50) = 21.04, p < .025$, indicating that the participants who reported high level of contemplation ($M = 7.84$) reported less cold-heartedness as compared to the participants who reported low level of contemplation ($M = 12.56$). Likewise, a significant result was obtained in terms of action, Multivariate $F(2, 49) = 6.08, p < .01, \eta^2 = .20$, Wilk's Lambda = .80. Accordingly, a significant difference was obtained for cold-heartedness, $F(1, 50) = 8.20, p < .025$, indicating that the participants who reported high level of action ($M = 8.60$) reported less cold-heartedness as compared to the participants who reported low level of action ($M = 11.85$). Similarly, a significant result was obtained in terms of maintenance, Multivariate $F(2, 49) = 4.31, p < .05, \eta^2 = .15$, Wilk's Lambda = .85. Accordingly, a significant difference was obtained again for cold-heartedness, $F(1, 50) = 7.33, p <$

.025, indicating that the participants who reported high level of maintenance ($\underline{M} = 8.68$) reported less cold-heartedness as compared to the participants who reported low level of maintenance ($\underline{M} = 11.78$). In terms of basic personality traits, MANOVA analyses provided a significant main effect of agreeableness, Multivariate $\underline{F}(2, 49) = 5.06$, $p < .01$, $\eta^2 = .17$, Wilk's Lambda = .83. Accordingly, a significant difference was obtained in terms of cold-heartedness, $\underline{F}(1, 50) = 10.29$, $p < .025$, indicating that participants who reported low level of agreeableness ($\underline{M} = 12.08$) reported more cold-heartedness as compared to the participants who reported high level of agreeableness ($\underline{M} = 8.50$). Regarding locus of control, MANOVA results yielded a significant main effect for belief in chance, Multivariate $\underline{F}(2, 49) = 6.17$, $p < .01$, $\eta^2 = .20$, Wilk's Lambda = .80. Accordingly, a significant difference was obtained for power-oriented assumptions, $\underline{F}(1, 50) = 7.84$, $p < .025$, indicating that participants who reported high level of belief in chance ($\underline{M} = 39.75$), reported more power-oriented assumptions as compared to the participants who reported low level of belief in chance ($\underline{M} = 33.94$). Another main effect was obtained in terms of insignificance of struggle, Multivariate $\underline{F}(2, 49) = 5.85$, $p < .01$, $\eta^2 = .19$, Wilk's Lambda = .81. Accordingly, a significant difference was obtained again for power-oriented assumptions, $\underline{F}(1, 50) = 10.77$, $p < .025$, indicating that the participants who reported high level of insignificance of struggle ($\underline{M} = 40.18$) reported more power-oriented assumptions as compared to the participants who reported low level of insignificance of struggle ($\underline{M} = 33.54$). Moreover, a significant main effect was observed in terms of belief in an unfair world, Multivariate $\underline{F}(2, 49) = 7.85$, $p < .001$, $\eta^2 = .24$, Wilk's Lambda = .76. Accordingly, a significant difference was obtained for power-oriented assumptions, $\underline{F}(1, 50) = 15.75$, $p < .025$, indicating that the participants who reported high level of belief in an unfair world ($\underline{M} = 40.74$) reported more power-oriented assumptions as compared to the participants who reported low level of belief in an unfair world ($\underline{M} = 33.02$). MANOVA analyses further yielded a significant main effect of self-esteem, Multivariate $\underline{F}(2, 49) = 4.80$, $p < .01$, $\eta^2 = .16$, Wilk's Lambda = .84. Accordingly, a significant difference was obtained in terms of power-oriented assumptions, $\underline{F}(1, 50) = 5.77$, $p < .025$, indicating that participants with low level of self-esteem ($\underline{M} = 39.08$) indicated more power-oriented assumptions as compared to the participants with high level of self-esteem ($\underline{M} =$

33.99). Regarding trait anger, MANOVA results provided a significant main effect, Multivariate $F(2, 49) = 4.04$, $p < .05$, $\eta^2 = .14$, Wilk's Lambda = .86. Accordingly, a significant difference was obtained again for power-oriented assumptions, $F(1, 50) = 8.25$, $p < .025$, indicating that participants with high level of trait anger ($M = 39.81$) reported more power-oriented assumptions as compared to the participants who reported low level of trait anger ($M = 33.88$). Finally, in terms of anger expression, MANOVA results yielded a significant main effect of anger expression-in, Multivariate $F(2, 49) = 4.15$, $p < .05$, $\eta^2 = .15$, Wilk's Lambda = .86. Accordingly, a significant difference was obtained for power-oriented assumptions, $F(1, 50) = 8.46$, $p < .025$, indicating that participants who reported high level of anger expression-in ($M = 39.85$) reported more power-oriented assumptions as compared to the participants who reported low level of anger expression-in ($M = 33.85$).

Table 3.11. Criterion Validity Information Regarding CTS-Assumptions Scale

IV	Groups	EN+PO	CH	Multivariate F	df	Univariate F	df	η^2	Wilk's Lambda
PROS	Low	33.35	8.93	11.42***	2, 49	13.65 for EN+PO, 6.50 for CH	1, 50	.32	.68
	High	40.67	11.88						
CONS	Low	34.82	11.18	3.42*	2, 49	-	1, 50	.12	.88
	High	35.96	9.25						
PRECON	Low	33.96	10.78	3.06	2, 49	-	1, 50	.11	.89
	High	38.93	9.90						
CONT	Low	36.05	12.56	10.93***	2, 49	21.04 for CH	1, 50	.31	.69
	High	37.47	7.84						
ACTION	Low	35.01	11.85	6.08**	2, 49	8.20 for CH	1, 50	.20	.80
	High	38.59	8.60						
MAINT	Low	35.72	11.78	4.31*	2, 49	7.33 for CH	1, 50	.15	.85
	High	37.83	8.68						
E	Low	36.37	9.27	2.07	2, 49	-	1, 50	.08	.92
	High	37.22	11.68						
A	Low	36.66	12.08	5.06**	2, 49	10.29 for CH	1, 50	.17	.83
	High	36.80	8.50						

Table 3.11. Cont'd

IV	Groups	EN+PO	CH	Multivariate F	df	Univariate F	df	η^2	Wilk's Lambda
C	Low	36.67	11.40	2.43	2, 49	-	1, 50	.09	.91
	High	36.81	8.77						
N	Low	35.44	10.31	.68	2, 49	-	1, 50	.03	.97
	High	38.02	10.27						
O	Low	37.62	11.50	2.39	2, 49	-	1, 50	.09	.91
	High	35.84	9.08						
NV	Low	36.50	10.32	.03	2, 49	-	1, 50	.00	.99
	High	37.07	10.24						
LOC	Low	34.84	11.18	3.37*	2, 49	-	1, 50	.12	.88
	High	38.94	9.25						
INTLOC	Low	37.41	9.33	1.62	2, 49	-	1, 50	.06	.94
	High	36.00	11.32						
LOC-C	Low	33.94	11.30	6.17**	2, 49	7.84 for EN+PO	1, 50	.20	.80
	High	39.75	9.20						
LOC-S	Low	33.54	10.74	5.85**	2, 49	10.77 for EN+PO	1, 50	.19	.81
	High	40.18	9.80						

Table 3.11. Cont'd

IV	Groups	EN+PO	CH	Multivariate F	df	Univariate F	df	η^2	Wilk's Lambda
LOC-F				2.55	2, 49	-	1, 50	.09	.91
	Low	35.67	11.46						
	High	37.79	9.12						
LOC-U				7.85***	2, 49	15.75 for EN+PO	1, 50	.24	.76
	Low	33.02	10.44						
	High	40.74	10.12						
RSE				4.80**	2, 49	5.77 for EN+PO	1, 50	.16	.84
	Low	39.08	11.32						
	High	33.99	9.08						
T-ANGER				4.04*	2, 49	8.25 for EN+PO	1, 50	.14	.86
	Low	33.88	10.22						
	High	39.81	10.36						
ANGER- IN				4.15*	2, 49	8.46 for EN+PO	1, 50	.15	.86
	Low	33.85	10.19						
	High	39.85	10.40						
ANGER- OUT				1.69	2, 49	-	1, 50	.06	.94
	Low	35.21	9.68						
	High	38.51	11.00						

Table 3.11. Cont'd

IV	Groups	EN+PO	CH	Multivariate F	df	Univariate F	df	η^2	Wilk's Lambda
ANGER CONTROL				2.07	2, 49	-	1, 50	.08	.92
	Low	37.12	11.39						
	High	36.28	9.00						

$p < .05$, ** $p < .01$, *** $p < .001$

Note. EN+PO = Power-oriented assumptions, CH = Cold-Heartedness, PROS = Pros of offending, CONS = Cons of offending, PRECON = Precontemplation, CONT = Contemplation, ACTION = Action, MAINT = Maintenance, E = Extraversion, A = Agreeableness, C = Conscientiousness, N = Neuroticism, O = Openness to Experience, NV = Negative Valence, LOC = Locus of Control, INT LOC = Internal Locus of Control, LOC-C = Belief in Chance, LOC-S = Insignificance of Struggle, LOC-F = Fatalism, LOC-U = Belief in an Unfair World, RSE = Self-Esteem, T-ANGER = Trait Anger, ANGER-IN = Anger Expression-In, ANGER-OUT = Anger Expression-Out.

As can be followed in Table 3.12, being CTS-Defensive Strategies the dependent variable, t-test results yielded a significant difference in terms of precontemplation, $t(50) = -4.27, p < .001$, indicating that participants who reported high level of precontemplation ($M = 37.60$), reported more CTS-Defensive Strategies as compared to the participants who reported low level of precontemplation ($M = 29.82$). A significant difference was also observed for action, $t(50) = -3.09, p < .01$, indicating that participants who reported high level of action ($M = 37.27$) reported more CTS-Defensive Strategies than the participants who reported low level of action ($M = 31.27$). Besides, a significant difference was observed for maintenance, $t(50) = -3.24, p < .01$, indicating that participants who reported high level of maintenance ($M = 37.39$) reported more CTS-Defensive Strategies than the participants who reported low level of maintenance ($M = 31.16$). In terms of decisional balance, a significant difference was observed for cons of offending, $t(50) = -2.14, p < .05$, indicating that participants who perceived offending as more disadvantageous ($M = 36.49$) reported more CTS-Defensive Strategies as compared to the participants who perceived offending as less disadvantageous ($M = 32.16$). In terms of locus of control, a significant difference was obtained for external locus of control, $t(50) = -3.17, p < .01$, indicating that participants who engaged in high level of external locus of control ($M = 37.46$) reported more CTS-Defensive Strategies than the participants who engaged in low level of external locus of control ($M = 31.33$). Besides, a significant difference was obtained for belief in chance, $t(50) = -3.85, p < .001$, indicating that participants who reported high level of belief in chance ($M = 37.87$) also reported more CTS-Defensive Strategies than the participants who reported low level of belief in chance ($M = 30.72$). Moreover, a significant difference was obtained for insignificance of struggle, $t(50) = -3.86, p < .001$, indicating that participants who reported high level of insignificance of struggle ($M = 37.88$) reported more CTS-Defensive Strategies than the participants who reported low level of insignificance of struggle ($M = 30.71$). Likewise, a significant difference was obtained for belief in an unfair world, $t(50) = -2.49, p < .05$, indicating that participants who reported high level of belief in an unfair world ($M = 36.74$) reported more CTS-Defensive Strategies than the participants who reported low level of belief in an unfair world ($M = 31.77$). Finally, a significant difference was obtained for

anger control, $t(50) = -2.48$, $p < .05$, indicating that participants who reported high level of anger control ($M = 36.83$) reported more CTS-Defensive Strategies than the participants who reported low level of anger control ($M = 31.86$).

Table 3.12. Criterion Validity Information Regarding Criminal Thinking Scale

Variables	CTS-Defensive Strategies		
	t	Low	High
Precontemplation	-4.27***	29.82	37.60
Contemplation	-1.86	32.33	36.14
Action	-3.09**	31.27	37.27
Maintenance	-3.24**	31.16	37.39
Pros of Offending	-1.53	32.69	35.87
Cons of Offending	-2.14*	32.16	36.49
Locus of Control	-3.17**	31.33	37.46
Internal Locus of Control	.92	35.09	33.15
Belief in Chance	-3.85***	30.72	37.87
Insignificance of Struggle	-3.86***	30.71	37.88
Fatalism	-1.89	32.22	36.09
Belief in an Unfair World	-2.49*	31.77	36.74
Extraversion	.56	34.66	33.47
Agreeableness	-1.12	32.99	35.32
Conscientiousness	.39	34.51	33.68
Neuroticism	-.91	33.21	35.11
Openness to Experience	.14	34.30	34.02
Negative Valence	-1.68	32.74	36.26
Self-Esteem	1.06	35.19	32.95
Trait Anger	-1.44	32.72	35.71
Anger Expression-In	-1.55	32.62	35.82
Anger Expression-Out	-1.02	33.17	35.31
Anger Control	-2.48*	31.86	36.83

* $p < .05$, ** $p < .01$, *** $p < .001$

Note. For all analyses, $df = 50$.

3.1.4.3. Psychometric Properties of SOCS-C

3.1.4.3.1. Reliability of SOCS-C

The internal consistency coefficients (i.e., Cronbach alpha coefficients) and the ranges for the item-total correlations for the scales of SOCS-C (i.e., precontemplation, contemplation, action, and maintenance) are provided in Table 3.13.A and 3.13.B, respectively. Initially, precontemplation revealed a considerably low internal consistency coefficient ($\alpha = .42$). When the item-total correlations were examined, it was observed that some items (i.e., Item # 1, 13, and 31) yielded negative correlations with other items, indicating that these items might not have

been clearly understood by the participants. Therefore, the precontemplation score was re-computed after the exclusion of these items. As can be followed from Table 3.13.A, contemplation, action, and maintenance scales revealed strong internal reliability coefficients (.78, .82 and .72, respectively). Cronbach alpha coefficient of precontemplation was observed to be relatively weak ($\alpha = .62$), yet it was within the acceptable range. Besides, the item-total correlation coefficients ranged from .16 to .48 for precontemplation, from .38 to .70 for contemplation, from .47 to .62 for action, and from .23 to .62 for maintenance.

Table 3.13. Reliability Information Regarding SOCS-C

	A.Internal Consistency Coefficients	B.Item-Total Correlation Range
PRECON	.62	.16-.48
CONT	.78	.38-.70
ACTION	.82	.47-.62
MAINT	.72	.23-.62

Note. PRECON = Precontemplation, CONT = Contemplation, ACTION = Action, MAINT = Maintenance

3.1.4.3.2. Validity of SOCS-C

3.1.4.3.2.1. Concurrent Validity of SOCS-C

In order to investigate the concurrent validity of SOCS-C, the scales (precontemplation, contemplation, action, and maintenance) were subjected to correlational analysis with demographic, personality, and other study variables. For the concurrent validity information, zero-orders were taken into account, where the Pearson Correlation Coefficient is equal to or exceeds .20.

Table 3.14 presents the Pearson Correlations with demographic variables. Accordingly, contemplation and action revealed significant zero-order correlations with age of beginning to work ($r = .35, p < .05$; $r = .37, p < .05$, respectively). Besides, precontemplation was found to be positively associated with alcohol usage problems ($r = .43, p < .01$) and history of suicide ($r = .34, p < .05$). In addition, precontemplation yielded negative association with history of violent crime ($r = -.34, p < .05$). Finally, maintenance revealed significant zero-order correlations with history of suicide ($r = -.32, p < .05$), and violent crime ($r = .29, p < .05$).

Table 3.15 presents correlations between SOCS-C scales and personality and locus of control variables. Accordingly, precontemplation revealed a significant zero-order correlation with external locus of control ($r = .32, p < .05$), belief in chance ($r = .32, p < .05$), insignificance of struggle ($r = .30, p < .05$), and belief in an unfair world ($r = .42, p < .01$). On the other hand, contemplation revealed significant zero-order correlations with agreeableness ($r = .42, p < .01$), conscientiousness ($r = .50, p < .001$), openness to experience ($r = .36, p < .01$), negative valence ($r = -.29, p < .05$), locus of control ($r = .55, p < .001$), internal locus of control ($r = -.67, p < .001$), belief in chance ($r = .34, p < .05$), and fatalism ($r = .48, p < .001$). Furthermore, action revealed significant zero-order correlations with agreeableness ($r = .34, p < .05$), conscientiousness ($r = .39, p < .01$), negative valence ($r = -.28, p < .05$), locus of control ($r = .50, p < .001$), internal locus of control ($r = -.56, p < .001$), belief in chance ($r = .34, p < .05$), and fatalism ($r = .56, p < .001$). Finally, maintenance revealed significant zero-order correlations with extraversion ($r = -.39, p < .01$), locus of control ($r = .60, p < .001$), internal locus of control ($r = -.52, p < .001$), belief in chance ($r = .43, p < .001$), insignificance of struggle ($r = .46, p < .001$), fatalism ($r = .48, p < .001$), and belief in an unfair world ($r = .39, p < .01$).

Table 3.16 presents correlations between SOCS-C scales and other study variables. Accordingly, precontemplation revealed significant zero-order correlations with CTS-Defensive strategies ($r = .46, p < .001$) and anger control ($r = .30, p < .05$). Moreover, contemplation revealed significant zero-order correlations with cold-heartedness ($r = -.74, p < .001$), CTS-Defensive strategies ($r = .30, p < .05$), cons of offending ($r = .50, p < .001$), anger expression-out ($r = -.31, p < .05$), and anger control ($r = .49, p < .001$). Likewise, action revealed significant zero-order correlations with cold-heartedness ($r = -.67, p < .001$), CTS-Defensive strategies ($r = .43, p < .001$), cons of offending ($r = .47, p < .001$), and anger control ($r = .32, p < .05$). Finally, maintenance revealed significant zero-order associations with cold-heartedness ($r = -.50, p < .001$), CTS-Defensive strategies ($r = .55, p < .001$) and cons of offending ($r = .42, p < .01$).

Table 3.14. Pearson's Correlations between Scales of SOCS-C and Demographic Variables

VARIABLES	PRECON	CONT	ACTION	MAINT
Age	.03	.24	.20	.22
Education	-.15	.14	.03	-.07
Unemployment	-.11	.01	-.02	.04
Work Age	.18	.35*	.37*	.31
Number of Siblings	.18	.06	.12	.13
Order of Birth	.03	-.14	-.16	-.13
Alcohol Use	.18	.20	.05	.02
Alcohol Usage Problems	.43**	.20	.05	.02
Substance Use	.15	.25	.14	.06
Separation from Family	-.04	.08	.14	.18
Violence in Family	.16	-.15	-.15	-.17
Living in Street	.19	-.08	-.08	-.19
Suicide	.34*	-.09	-.20	-.32*
Self-Harm	.22	.07	-.15	-.17
Previous Criminal Record	.13	.05	.07	-.03
Criminal History of Family Members	-.11	-.14	-.18	-.07
Non-Violent Crime	.07	.20	.01	-.07
Violent Crime	-.34*	.26	.12	.29*
Sexual Crime	-.03	-.11	-.15	-.18

* $p < .05$.

Note 1. PRECON = Precontemplation, CONT = Contemplation, ACTION = Action, MAINT = Maintenance.

Note 2. The significant correlation coefficients that are equal to or larger than .20 were printed in bold.

Table 3.15. Pearson's Correlations between Scales of SOCS-C and Personality and Locus of Control Variables

VARIABLES	PRECON	CONT	ACTION	MAINT
E	-.01	-.11	-.18	-.39**
A	.00	.42**	.34*	.17
C	-.07	.50***	.39**	.14
N	.07	-.01	-.02	.10
O	-.08	.36**	.23	.05
NV	.19	-.29*	-.28*	.09
LOC	.32*	.55***	.50***	.60***
INTLOC	-.22	-.67***	-.56***	-.52***
LOC-C	.32*	.34*	.34*	.43***
LOC-S	.30*	.15	.21	.46***
LOC-F	.13	.48***	.56***	.48***
LOC-U	.42**	.19	.21	.39**

* $p < .05$, ** $p < .01$, *** $p < .001$

Note 1. PRECON = Precontemplation, CONT = Contemplation, ACTION = Action, MAINT = Maintenance, E = Extraversion, A = Agreeableness, C = Conscientiousness, N = Neuroticism, O = Openness to Experience, NV = Negative Valence, LOC = Locus of Control, INTLOC = Internal locus of control, LOC-C = Belief in chance, LOC-S = Insignificance of struggle, LOC-F = Fatalism, LOC-U = Belief in an unfair world.

Note 2. The significant correlation coefficients that are equal to or larger than .20 were printed in bold.

Table 3.16. Pearson's Correlations between Scales of SOCS-C and Other Study Variables

VARIABLES	PRECON	CONT	ACTION	MAINT
Power-Oriented Assumptions	.26	-.02	.15	.16
Cold-Heartedness	-.23	-.74***	-.67***	-.50***
CTS-Defensive Strategies	.46***	.30*	.43***	.55***
PROS	.13	-.24	-.19	-.01
CONS	.13	.50***	.47***	.42**
RSE	-.13	.19	.08	-.21
TRAIT ANGER	-.02	-.16	-.08	.02
ANGER-IN	.16	-.01	.17	.14
ANGER-OUT	-.06	-.31*	-.13	-.08
ANGER CONTROL	.30*	.49***	.32*	.21

* $p < .05$, ** $p < .01$, *** $p < .001$.

Note 1. PRECON = Precontemplation, CONT = Contemplation, ACTION = Action, MAINT = Maintenance, PROS = Pros of offending, CONS = Cons of offending, RSE = Self-Esteem, ANGER-IN = Anger Expression-In, ANGER-OUT = Anger Expression-Out

Note 2. The significant correlation coefficients that are equal to or larger than .20 were printed in bold.

3.1.4.3.2.2. Criterion Validity of SOCS-C

In order to examine the criterion validity of SOCS-C, initially, CTS-Assumptions (i.e., EN+PO and CH) and the total score of CTS-Defensive strategies scale, decisional balance (i.e, pros and cons of offending), basic personality traits (i.e., extraversion, agreeableness, conscientiousness, neuroticism, openness to experience, and negative valence), locus of control and dimensions of locus of control (i.e., internal locus of control, belief in chance, insignificance of struggle, fatalism, and belief in an unfair world), self-esteem, trait anger, and dimensions of anger expression (i.e., anger expression-in, anger expression-out, and anger control) were categorized into 2 levels (i.e., low and high; for descriptive information regarding the categories, see Table 3.10). Afterwards the differences between these groups were examined on the basis of their SOCS-C scores through separate MANOVAs, where subscales of SOCS-C (i.e., precontemplation, contemplation, action, and maintenance) served as dependent variables.

As can be followed in Table 3.17, MANOVA results yielded a significant difference in terms of cold-heartedness, Multivariate $F(4, 47) = 5.99, p < .001, \eta^2 = .34$, Wilk's Lambda = .36. Accordingly, the univariate analyses with bonferroni correction revealed a significant result for contemplation, $F(1, 50) = 22.89, p < .013$, indicating that participants who reported low level of cold-heartedness ($M = 32.74$), reported more contemplation as compared to the participants who reported high level of cold-heartedness ($M = 26.11$). Similarly, univariate analyses yielded a significant result for action, $F(1, 50) = 20.18, p < .013$, indicating that participants who reported low level of cold-heartedness ($M = 31.97$), reported more action as compared to the participants who reported high level of cold-heartedness ($M = 25.04$). Univariate analyses also provided a significant result for maintenance, $F(1, 50) = 11.74, p < .013$, indicating that participants who reported low level of cold-heartedness ($M = 28.15$), reported more maintenance as compared to the participants who reported high level of cold-heartedness ($M = 23.20$). MANOVA results further yielded a significant difference in terms of cons of offending, Multivariate $F(4, 47) = 3.44, p < .05, \eta^2 = .23$, Wilk's Lambda = .77. Accordingly, the univariate analyses revealed a significant result for contemplation, $F(1, 50) = 9.96, p < .013$, indicating that participants who reported high level of cons of offending ($M = 32.16$), reported more

contemplation as compared to the participants who reported low level of cons of offending ($\underline{M} = 27.32$). Similarly, univariate analyses also yielded a significant result for action, $\underline{F}(1, 50) = 11.69$, $p < .013$, indicating that participants who reported high level of cons of offending ($\underline{M} = 31.67$), reported more action as compared to the participants who reported low level of cons of offending ($\underline{M} = 26.04$). In terms of basic personality traits, significant results were obtained regarding conscientiousness, Multivariate $\underline{F}(4, 47) = 4.37$, $p < .01$, $\eta^2 = .27$, Wilk's Lambda = .73 and negative valence, Multivariate $\underline{F}(4, 47) = 3.89$, $p < .01$, $\eta^2 = .25$, Wilk's Lambda = .75. However, univariate analyses failed to provide significant results for both personality traits. On the other hand, MANOVA results yielded a significant difference in terms of locus of control, Multivariate $\underline{F}(4, 47) = 3.32$, $p < .05$, $\eta^2 = .22$, Wilk's Lambda = .78. According to the univariate results, a significant difference was obtained for contemplation, $\underline{F}(1, 50) = 7.62$, $p < .013$, indicating that participants who reported high level of external locus of control ($\underline{M} = 31.88$) reported more contemplation than the participants with low level of external locus of control ($\underline{M} = 27.56$). Univariate results further yielded a significant difference in terms of action, $\underline{F}(1, 50) = 9.16$, $p < .013$, indicating that participants who reported high level of external locus of control ($\underline{M} = 31.38$) reported more action than the participants with low level of external locus of control ($\underline{M} = 26.29$). Moreover, univariate results revealed a significant difference with respect to maintenance, $\underline{F}(1, 50) = 11.50$, $p < .013$, indicating that participants who reported high level of external locus of control ($\underline{M} = 28.42$), reported more maintenance as compared to the participants who reported low level of external locus of control ($\underline{M} = 23.50$). MANOVA results also provided a significant main effect for belief in chance, Multivariate $\underline{F}(4, 47) = 2.83$, $p < .05$, $\eta^2 = .19$, Wilk's Lambda = .82. Accordingly, a significant difference was obtained for action, $\underline{F}(1, 50) = 10.26$, $p < .013$, indicating that participants who reported high level of belief in chance ($\underline{M} = 31.41$), reported more action as compared to the participants who reported low level of belief in chance ($\underline{M} = 26.07$). Besides, a significant difference was observed for maintenance, $\underline{F}(1, 50) = 7.05$, $p < .013$, indicating that participants who reported high level of belief in chance ($\underline{M} = 27.84$), reported more maintenance as compared to the participants who reported low level of belief in chance ($\underline{M} = 23.85$). Another main effect was obtained in terms of fatalism,

Multivariate $F(4, 47) = 4.12, p < .01, \eta^2 = .26, \text{Wilk's Lambda} = .74$. Accordingly, a significant difference was obtained for contemplation, $F(1, 50) = 13.73, p < .013$, indicating that the participants who reported high level of fatalism ($M = 32.30$) reported more contemplation as compared to the participants who reported low level of fatalism ($M = 26.81$). Besides, a significant result was obtained for action, $F(1, 50) = 12.71, p < .013$, indicating that the participants who reported high level of fatalism ($M = 31.54$) reported more action as compared to the participants who reported low level of fatalism ($M = 25.73$). A significant univariate result was also observed for maintenance, $F(1, 50) = 12.07, p < .013$, indicating that the participants who reported high level of fatalism ($M = 28.27$) reported more maintenance as compared to the participants who reported low level of fatalism ($M = 23.27$).

In terms of self-esteem, a significant main effect was obtained, Multivariate $F(4, 47) = 2.84, p < .05, \eta^2 = .19, \text{Wilk's Lambda} = .81$. However, univariate analyses failed to provide significant results. Finally, MANOVA analyses provided a significant main effect of anger control, Multivariate $F(4, 47) = 3.31, p < .05, \eta^2 = .22, \text{Wilk's Lambda} = .78$. Accordingly, a significant difference was obtained for contemplation, $F(1, 50) = 9.58, p < .013$, indicating that participants who reported high level of anger control ($M = 32.11$) also indicated more contemplation as compared to the participants who reported low level of anger control ($M = 27.36$).

Table 3.17. Criterion Validity Information Regarding Scales of SOCS-C

IV	Groups	PRECON	CONT	ACTION	MAINT	Multivariate F	df	Univariate F	df	η^2	Wilk's Lambda
EN+PO						2.14	4, 47	-	1, 50	.15	.85
	Low	12.33	29.78	27.84	24.46						
	High	14.23	29.36	29.32	26.89						
CH						5.99***	4, 47	22.89 for cont, 20.18 for action, 11.74 for maint.	1, 50	.34	.66
	Low	13.96	32.74	31.97	28.15						
	High	12.70	26.11	25.04	23.20						
CTS-DEF. STRAT.						2.30	4, 47	-	1, 50	.16	.84
	Low	12.42	28.49	27.17	24.03						
	High	14.64	31.00	30.64	28.14						
PROS						1.28	4, 47	-	1, 50	.10	.90
	Low	13.07	30.53	29.29	25.46						
	High	13.69	28.42	27.88	26.13						
CONS						3.44*	4, 47	9.96 for cont, 11.69 for action	1, 50	.23	.77
	Low	13.45	27.32	26.04	24.00						
	High	13.25	32.16	31.67	27.83						
E						2.15	4, 47	-	1, 50	.16	.85
	Low	13.08	30.13	29.73	27.20						
	High	13.73	28.76	27.14	23.82						
A						2.52	4, 47	-	1, 50	.18	.82
	Low	13.21	27.31	26.08	24.31						
	High	13.50	31.80	31.20	27.23						

Table 3.17. Cont'd

IV	Groups	PRECON	CONT	ACTION	MAINT	Multivariate F	df	Univariate F	df	η^2	Wilk's Lambda
C	Low	13.82	28.40	27.07	26.17	4.37**	4, 47	-	1, 50	.27	.73
	High	12.73	31.12	30.78	25.23						
N	Low	13.52	29.87	28.93	25.42	.36	4, 47	-	1, 50	.03	.97
	High	13.19	29.23	28.35	26.12						
O	Low	13.67	28.65	27.65	26.23	1.54	4, 47	-	1, 50	.12	.88
	High	13.04	30.45	29.62	25.31						
NV	Low	13.24	30.44	29.65	25.00	3.89**	4, 47	-	1, 50	.25	.75
	High	13.52	28.24	27.14	26.90						
LOC	Low	12.39	27.56	26.29	23.50	3.32*	4, 47	7.62 for cont, 9.16 for action & 11.50 for maint	1, 50	.22	.78
	High	14.48	31.88	31.38	28.42						
INTLOC	Low	13.94	31.88	30.60	27.48	2.49	4, 47	-	1, 50	.18	.83
	High	12.72	27.04	26.52	23.92						
LOC-C	Low	12.44	27.62	26.07	23.85	2.83*	4, 47	10.26 for action, 7.05 for maint	1, 50	.19	.81
	High	14.34	31.64	31.41	27.84						
LOC-S	Low	12.78	29.14	27.60	24.07	1.90	4, 47	-	1, 50	.14	.86
	High	13.98	30.00	29.76	27.60						

Table 3.17. Cont'd

IV	Groups	PRECON	CONT	ACTION	MAINT	Multivariate F	df	Univariate F	df	η^2	Wilk's Lambda
LOC-F	Low	13.12	26.81	25.73	23.27	4.12**	4, 47	13.73 for cont, 12.71 for action & 12.07 for maint	1, 50	.26	.74
	High	13.60	32.30	31.54	28.27						
LOC-U	Low	12.26	29.03	27.89	24.37	1.77	4, 47	-	1, 50	.13	.87
	High	14.54	30.12	29.44	27.28						
RSE	Low	13.45	28.61	28.61	26.64	2.84*	4, 47	-	1, 50	.19	.81
	High	13.25	30.66	28.67	24.75						
T-ANGER	Low	13.06	29.99	28.45	25.19	.77	4, 47	-	1, 50	.06	.94
	High	13.68	29.08	28.84	26.40						
ANGER- IN	Low	12.96	29.95	28.12	25.67	.82	4, 47	-	1, 50	.07	.94
	High	13.78	29.12	29.20	25.88						
ANGER- OUT	Low	13.50	30.85	28.93	25.61	2.13	4, 47	-	1, 50	.15	.85
	High	13.19	28.04	28.29	25.96						

Table 3.17. Cont'd

IV	Groups	PRECON	CONT	ACTION	MAINT	Multivariate F	df	Univariate F	df	η^2	Wilk's Lambda
ANGER CONTROL						3.31*	4, 47	9.58 for cont.	1, 50	.22	.78
	Low	12.43	27.36	26.75	24.68						
	High	14.44	32.11	30.84	27.04						

$p < .05$, ** $p < .01$, *** $p < .001$

Note. PRECON = Precontemplation, CONT = Contemplation, ACTION = Action, MAINT = Maintenance, EN+PO = Power-oriented assumptions, CH = Cold-heartedness, PROS = Pros of offending, CONS = Cons of offending, E = Extraversion, A = Agreeableness, C = Conscientiousness, N = Neuroticism, O = Openness to Experience, NV = Negative Valence, LOC = Locus of Control, INT LOC = Internal Locus of Control, LOC-C = Belief in Chance, LOC-S = Insignificance of Struggle, LOC-F = Fatalism, LOC-U = Belief in an Unfair World, RSE = Self-Esteem, T-ANGER = Trait Anger, ANGER-IN = Anger Expression-In, ANGER-OUT = Anger Expression-Out.

3.1.4.4. Psychometric Properties of DBS-C

3.1.4.4.1. Reliability of DBS-C

The internal consistency coefficients (i.e., Cronbach alpha coefficients) and the ranges for the item-total correlations for the subscales of DBS-C are provided in Table 3.18.A and 3.18.B, respectively. As can be followed from Table 3.18.A, the subscales generally revealed good internal reliability coefficients, ranging between .78 and .86. Besides, the item-total correlation coefficients for the DBS-C subscales ranged between .11 and .69.

Table 3.18. Reliability Information Regarding DBS-C

	Pros	Cons
A. Internal Consistency Coefficients	.86	.78
B. Item-Total Correlation Range	.11-.69	.35-.60

3.1.4.4.2 Validity of DBS-C

3.1.4.4.2.1. Concurrent Validity of DBS-C

In order to investigate the concurrent validity of DBS-C, the DBS-C scales (i.e., Pros and Cons) were subjected to correlational analysis with demographic, personality, and other study variables. For the concurrent validity information, zero-orders were taken into account, where the Pearson Correlation Coefficient is equal to or exceeds .20.

Table 3.19 presents the Pearson Correlations with demographic variables. Accordingly, pros of offending revealed a significant zero-order correlation with education ($r = -.38, p < .01$) and previous criminal record ($r = .36, p < .01$), whereas cons of offending revealed significant zero-order correlations with age ($r = .34, p < .05$) and experience of violence in the family ($r = -.28, p < .05$).

Table 3.20 displays the Pearson Correlations between DBS-C scales and personality and locus of control variables. Accordingly, Pros of offending revealed significant zero-order correlations with agreeableness ($r = -.53, p < .001$), conscientiousness ($r = -.34, p < .05$), openness to experience ($r = -.38, p < .01$), and negative valence ($r = .29, p < .05$). Moreover, a significant positive association was obtained between Pros of offending and belief in an unfair world ($r = .33, p < .05$). On the other hand, Cons of offending revealed significant zero-order correlations with agreeableness ($r = .29, p < .05$), conscientiousness ($r = .27, p < .05$), openness to

experience ($r = .36, p < .01$), locus of control ($r = .52, p < .001$), internal locus of control ($r = -.62, p < .001$), belief in chance ($r = .45, p < .001$), and fatalism ($r = .31, p < .05$).

Lastly, Table 3.21 displays the Pearson Correlations between DBS-C scales and other study variables. Accordingly, Pros of offending revealed significant zero-order correlations with power-oriented assumptions ($r = .41, p < .01$), cold-heartedness ($r = .35, p < .01$), and anger control ($r = -.40, p < .01$). On the other hand, Cons of offending revealed significant zero-order correlations with power-oriented assumptions ($r = .35, p < .01$), cold-heartedness ($r = -.39, p < .01$), CTS-Defensive strategies ($r = .39, p < .01$), contemplation ($r = .50, p < .001$), action ($r = .47, p < .001$), maintenance ($r = .42, p < .01$), anger expression-in ($r = .27, p < .05$), and anger control ($r = .40, p < .01$).

Table 3.19. Pearson's Correlations between DBS-C scales and Demographic Variables

VARIABLES	PROS	CONS
Age	-.22	.34*
Education	-.38**	.11
Unemployment	.17	.07
Work Age	.02	-.02
Number of Siblings	.27	-.05
Order of Birth	.25	-.19
Alcohol Use	.05	.06
Alcohol Usage Problems	.25	.20
Substance Use	-.06	.10
Separation from Family	-.13	.07
Violence in Family	-.06	-.28*
Living in Street	.05	-.09
Suicide	.18	-.22
Self-Harm	.04	-.20
Previous Criminal Record	.36**	.16
Criminal History of Family Members	.04	.24
Non-Violent Crime	-.16	-.09
Violent Crime	-.17	.06
Sexual Crime	-.22	.20

* $p < .05$, ** $p < .01$.

Note 1. PROS = Pros of offending, CONS = Cons of offending

Note 2. The significant correlation coefficients that are equal to or larger than .20 were printed in bold.

Table 3.20. Pearson's Correlations between DBS-C scales and Personality and Locus of Control Variables

VARIABLES	PROS	CONS
E	-.13	.04
A	-.53***	.29*
C	-.34*	.27*
N	.07	-.19
O	-.38**	.36**
NV	.29*	-.17
LOC	.08	.52***
INTLOC	.10	-.62***
LOC-C	.07	.45***
LOC-S	.27	.16
LOC-F	-.15	.31*
LOC-U	.33*	.16

* $p < .05$, ** $p < .01$, *** $p < .001$.

Note 1. PROS = Pros of offending, CONS = Cons of offending, E = Extraversion, A = Agreeableness, C = Conscientiousness, N = Neuroticism, O = Openness to Experience, NV = Negative Valence, LOC = Locus of Control, INTLOC = Internal locus of control, LOC-C = Belief in chance, LOC-S = Insignificance of struggle, LOC-F = Fatalism, LOC-U = Belief in an unfair world.

Note 2. The significant correlation coefficients that are equal to or larger than .20 were printed in bold.

Table 3.21. Pearson's Correlations between DBS-C scales and Other Study Variables

VARIABLES	PROS	CONS
Power-oriented assumptions	.41**	.35**
Cold-heartedness	.35**	-.39**
CTS-Defensive Strategies	.22	.39**
PRECON	.13	.13
CONT.	-.24	.50***
ACTION	-.19	.47***
MAINT.	-.01	.42**
RSE	-.17	.18
T-ANGER	.10	.13
ANGER-IN	-.01	.27*
ANGER-OUT	.08	-.01
ANGER CONTROL	-.40**	.40**

* $p < .05$, ** $p < .01$, *** $p < .001$.

Note. PROS = Pros of offending, CONS = Cons of offending, CTS-CH = Criminal Thinking, CH = Cold-Heartedness, PRECON = Precontemplation, CONT = Contemplation, ACTION = Action, MAINT = Maintenance, RSE = Self-Esteem, T-ANGER = Trait Anger, ANGER-IN = Anger Expression-In, ANGER-OUT = Anger Expression-Out.

Note 2. The significant correlation coefficients that are equal to or larger than .20 were printed in bold.

3.1.4.4.2.2. Criterion Validity of DBS-C

In order to examine the criterion validity of DBS-C, initially, CTS-Assumptions (i.e., EN+PO and CH), total score of CTS-Defensive strategies, stages of change (i.e., precontemplation, contemplation, action, and maintenance), basic personality traits (i.e., extraversion, agreeableness, conscientiousness, neuroticism, openness to experience, and negative valence), locus of control and dimensions of locus of control (i.e., internal locus of control, belief in chance, insignificance of struggle, fatalism, and belief in an unfair world), self-esteem, trait anger, and dimensions of anger expression (i.e., anger expression-in, anger expression-out, and anger control) were categorized into 2 levels (i.e., low and high; for descriptive information regarding the categories, see Table 3.10). Afterwards the differences between these groups were examined on the basis of their DBS-C scores through separate MANOVAs, where subscales of DBS-C (i.e., pros and cons of offending) served as dependent variables.

As can be followed in Table 3.22, MANOVA results yielded a significant difference in terms of power-oriented assumptions, Multivariate $F(2, 49) = 5.22, p < .01, \eta^2 = .18, \text{Wilk's Lambda} = .82$. Accordingly, when the univariate analyses with Bonferroni correction ($p = .05/2 = .025$) were examined, a significant result was obtained for pros of offending, $F(1, 50) = 6.57, p < .025$, indicating that participants who reported high level of power-oriented assumptions ($M = 24.49$), also reported more pros of offending as compared to the participants who reported low level of power-oriented assumptions ($M = 18.75$). Besides, a main effect was obtained in terms of cold-heartedness, Multivariate $F(2, 49) = 6.51, p < .01, \eta^2 = .21, \text{Wilk's Lambda} = .79$. Accordingly, when the univariate analyses were examined, a significant result was obtained for pros of offending, $F(1, 50) = 7.46, p < .025$, indicating that participants who reported high level of cold-heartedness ($M = 24.98$), also reported more pros of offending as compared to the participants who reported low level of cold-heartedness ($M = 18.93$). Moreover, a significant result was obtained for cons of offending, $F(1, 50) = 6.20, p < .025$, indicating that participants who reported low level of cold-heartedness ($M = 43.96$), reported more cons of offending as compared to the participants who reported high level of cold-

heartedness ($\underline{M} = 37.91$). MANOVA results further provided a significant difference in terms of CTS-Defensive Strategies, Multivariate $\underline{F}(2, 49) = 5.28$, $p < .01$, $\eta^2 = .18$, Wilk's Lambda = .82. According to the univariate results, a significant difference was obtained for cons of offending, $\underline{F}(1, 50) = 8.21$, $p < .025$, indicating that participants who reported high level of CTS-Defensive Strategies ($\underline{M} = 45.04$) also reported more cons of offending than the participants with low level of CTS-Defensive Strategies ($\underline{M} = 38.13$). Another main effect was obtained in terms of contemplation, Multivariate $\underline{F}(2, 49) = 5.27$, $p < .01$, $\eta^2 = .18$, Wilk's Lambda = .82. Accordingly, a significant difference was obtained for cons of offending, $\underline{F}(1, 50) = 10.29$, $p < .025$, indicating that the participants who reported high level of contemplation ($\underline{M} = 44.95$) also reported more cons of offending as compared to the participants who reported low level of contemplation ($\underline{M} = 37.44$). Likewise, a significant result was obtained in terms of action, Multivariate $\underline{F}(2, 49) = 5.67$, $p < .01$, $\eta^2 = .19$, Wilk's Lambda = .81. Accordingly, a significant difference was obtained for cons of offending, $\underline{F}(1, 50) = 11.57$, $p < .025$, indicating that the participants who reported high level of action ($\underline{M} = 45.15$) also reported more cons of offending as compared to the participants who reported low level of action ($\underline{M} = 37.26$). Similarly, a significant result was obtained in terms of maintenance, Multivariate $\underline{F}(2, 49) = 4.69$, $p < .05$, $\eta^2 = .16$, Wilk's Lambda = .84. Accordingly, a significant difference was obtained again for cons of offending, $\underline{F}(1, 50) = 9.54$, $p < .025$, indicating that the participants who reported high level of maintenance ($\underline{M} = 44.83$) also reported more cons of offending as compared to the participants who reported low level of maintenance ($\underline{M} = 37.55$). In terms of locus of control, MANOVA results yielded a significant main effect for internal locus of control, Multivariate $\underline{F}(2, 49) = 11.08$, $p < .001$, $\eta^2 = .31$, Wilk's Lambda = .69. Accordingly, a significant difference was obtained for cons of offending, $\underline{F}(1, 50) = 21.57$, $p < .025$, indicating that the participants who reported low level of internal locus of control ($\underline{M} = 45.85$) reported more cons of offending as compared to the participants who reported high level of internal locus of control ($\underline{M} = 35.87$). MANOVA results also provided a significant main effect for belief in chance, Multivariate $\underline{F}(2, 49) = 5.26$, $p < .01$, $\eta^2 = .18$, Wilk's Lambda = .82. Accordingly, a significant difference was obtained for cons of offending, $\underline{F}(1, 50) = 9.79$, $p < .025$, indicating that

participants who reported high level of belief in chance ($\underline{M} = 44.87$), reported more cons of offending as compared to the participants who reported low level of belief in chance ($\underline{M} = 37.51$). Another main effect was obtained in terms of fatalism, Multivariate $\underline{F} (2, 49) = 5.95$, $p < .01$, $\eta^2 = .20$, Wilk's Lambda = .81. Accordingly, a significant difference was obtained again for cons of offending, $\underline{F} (1, 50) = 11.59$, $p < .025$, indicating that the participants who reported high level of fatalism ($\underline{M} = 44.99$) reported more cons of offending as compared to the participants who reported low level of fatalism ($\underline{M} = 37.11$). Moreover, a significant main effect was observed in terms of belief in an unfair world, Multivariate $\underline{F} (2, 49) = 4.81$, $p < .01$, $\eta^2 = .16$, Wilk's Lambda = .84. Accordingly, a significant difference was obtained for pros of offending, $\underline{F} (1, 50) = 9.71$, $p < .025$, indicating that the participants who reported high level of belief in an unfair world ($\underline{M} = 25.36$) reported more pros of offending as compared to the participants who reported low level of belief in an unfair world ($\underline{M} = 18.58$). Finally, in terms of basic personality traits, MANOVA analyses provided a significant main effect of agreeableness, Multivariate $\underline{F} (2, 49) = 3.93$, $p < .05$, $\eta^2 = .14$, Wilk's Lambda = .86. Accordingly, a significant difference was obtained in terms of pros of offending, $\underline{F} (1, 50) = 5.33$, $p < .025$, indicating that participants who reported low level of agreeableness ($\underline{M} = 24.44$) indicated more pros of offending as compared to the participants who reported high level of agreeableness ($\underline{M} = 19.23$). Lastly, MANOVA results provided a significant main effect for openness to experience, Multivariate $\underline{F} (2, 49) = 5.12$, $p < .01$, $\eta^2 = .17$, Wilk's Lambda = .83. Accordingly, a significant difference was obtained again for pros of offending, $\underline{F} (1, 50) = 8.64$, $p < .025$, indicating that participants who reported low level of openness to experience ($\underline{M} = 25.06$) reported more pros of offending as compared to the participants who reported high level of openness to experience ($\underline{M} = 18.62$).

Table 3.22. Criterion Validity Information Regarding Decisional Balance Scale for Criminals

IV	Groups	PROS	CONS	Multivariate F	df	Univariate F	df	η^2	Wilk's Lambda
POWER-ORIENTED ASSUMPTIONS				5.22**	2, 49	6.57 for pros	1, 50	.18	.82
	Low	18.75	39.17						
COLD-HEARTEDNESS	High	24.49	42.67	6.51**	2, 49	7.46 for pros, 6.20 for cons	1, 50	.21	.79
	Low	18.93	43.96						
CTS-DEFENSIVE STRATEGIES	High	24.98	37.91	5.28**	2, 49	8.21 for cons	1, 50	.18	.82
	Low	20.88	38.13						
PRECON	High	23.15	45.04	2.51	2, 49	-	1, 50	.09	.91
	Low	18.98	41.12						
CONT	High	24.10	40.99	5.27**	2, 49	10.29 for cons	1, 50	.18	.82
	Low	22.96	37.44						
ACTION	High	20.62	44.95	4.69*	2, 49	11.57 for cons	1, 50	.19	.81
	Low	22.33	37.26						
MAINT	High	21.30	45.15	2.52	2, 49	9.54 for cons	1, 50	.16	.84
	Low	22.16	37.55						
	High	21.49	44.83						

Table 3.22. Cont'd

IV	Groups	PROS	CONS	Multivariate F	df	Univariate F	df	η^2	Wilk's Lambda
E				.14	2, 49	-	1, 50	.01	.99
	Low	22.34	41.16						
	High	21.15	40.90						
A				3.93*	2, 49	5.33 for pros	1, 50	.14	.86
	Low	24.44	38.80						
	High	19.23	43.30						
C				2.88	2, 49	-	1, 50	.11	.90
	Low	23.82	39.42						
	High	19.14	43.27						
N				1.04	2, 49	-	1, 50	.04	.96
	Low	20.20	40.84						
	High	23.47	41.26						
O				5.12**	2, 49	8.64 for pros	1, 50	.17	.83
	Low	25.06	39.11						
	High	18.62	42.99						
NV				.46	2, 49	-	1, 50	.02	.98
	Low	21.14	41.83						
	High	22.87	39.90						
LOC				2.52	2, 49	-	1, 50	.09	.91
	Low	21.45	38.60						
	High	22.29	43.91						
INTLOC				11.08***	2, 49	21.57 for cons	1, 50	.31	.69
	Low	20.39	45.85						
	High	23.40	35.87						
LOC-C				5.26**	2, 49	9.79 for cons	1, 50	.18	.82
	Low	21.40	37.51						
	High	22.30	44.87						

Table 3.22. Cont'd

IV	Groups	PROS	CONS	Multivariate F	df	Univariate F	df	η^2	Wilk's Lambda
LOC-S	Low	19.69	40.88	1.96	2, 49	-	1, 50	.07	.93
	High	24.16	41.23						
LOC-F	Low	23.07	37.11	5.95**	2, 49	11.59 for cons	1, 50	.20	.81
	High	20.60	44.99						
LOC-U	Low	18.58	41.22	4.81**	2, 49	9.71 for pros	1, 50	.16	.84
	High	25.36	40.87						
RSE	Low	24.01	40.42	2.11	2, 49	-	1, 50	.08	.92
	High	19.30	41.79						
T-ANGER	Low	20.05	40.48	1.53	2, 49	-	1, 50	.06	.94
	High	23.77	41.67						
ANGER-IN	Low	22.03	38.82	1.72	2, 49	-	1, 50	.07	.93
	High	21.62	43.47						
ANGER-OUT	Low	21.03	41.71	.37	2, 49	-	1, 50	.02	.99
	High	22.78	40.28						

Table 3.22. Cont'd

IV	Groups	PROS	CONS	Multivariate F	df	Univariate F	df	η^2	Wilk's Lambda
ANGER CONTROL				2.47	2, 49	-	1, 50	.09	.91
	Low	23.63	39.14						
	High	19.75	43.28						

$p < .05$, ** $p < .01$, *** $p < .001$

Note. PROS = Pros of offending, CONS = Cons of offending, PRECON = Precontemplation, CONT = Contemplation, ACTION = Action, MAINT = Maintenance, E = Extraversion, A = Agreeableness, C = Conscientiousness, N = Neuroticism, O = Openness to Experience, NV = Negative Valence, LOC = Locus of Control, INT LOC = Internal Locus of Control, LOC-C = Belief in Chance, LOC-S = Insignificance of Struggle, LOC-F = Fatalism, LOC-U = Belief in an Unfair World, RSE = Self-Esteem, T-ANGER = Trait Anger, ANGER-IN = Anger Expression-In, ANGER-OUT = Anger Expression-Out.

3.1.4.4.3. Additional DBS-C Items: Positive and Negative Attributions Related to Offending

In addition to the DBS-C items, participants were also asked about specific positive and negative attributions of offending. In this section, the frequency information is provided separately for each group of attributions. Moreover, group comparisons positive and negative attributions are investigated via Chi-Square analysis, t-test, and MANOVA. In Chi-Square Analyses, Fisher's Exact scores were provided when the expected count assumptions were not met.

3.1.4.4.3.1. Positive Attributions

3.1.4.4.3.1.1. Frequency Analysis of Positive Attributions

Regarding positive attributions, 7.7 % of the participants ($n = 4$) indicated "to be respected", 7.7 % of the participants indicated "to be accepted" ($n = 4$), 9.6 % of the participants ($n = 5$) indicated "to feel stronger", 26.9 % of the participants ($n = 14$) indicated "to protect myself", and 23.1 % of the participants ($n = 12$) indicated "material gains" as positive attributions of offending. Moreover, there were some qualitative answers that further supported the motivation of being accepted (i.e., "If I wouldn't, I would be rejected from my social circle"). Besides, there were some answers that reflected different motivations, such as "administering justice" (e.g., "I defended my rights", "Everyone shall learn his/her borders", "The man was harassing a woman. What was I supposed to do? Ignore?") and "curiosity and fun".

3.1.4.4.3.1.2. Group Comparisons with Positive Attributions

In order to make group comparisons (i.e., participants reporting and not-reporting positive attributions) according to demographic variables, a series of chi-square analyses were conducted separately for each positive attribution. In order to demonstrate the directions of the associations, Pearson's Rs were also computed. Prior to the analyses, continuous variables (i.e., age, age of beginning to work, number of siblings, and order of birth) were made categorical variables through median split. Besides, the variables that included more than 2 categories (i.e., education, experience of separation from the family, and criminal history of family members) were also made categorical through merging certain groups together. Descriptive information regarding these categorical variables is provided in Table 3.23.

Table 3.23. Descriptive Information for the Demographic Variables that were made Categorical

Variable	Levels	n	Range	Mean	SD
Age	Below 17	12	14-16	15.42	.67
	17	21	-	17	.00
Age of beginning to work	Below 14	12	7-13	10.33	2.03
	14 or higher	21	14-16	14.57	.75
Number of siblings	1-2	16	1-2	1.81	.40
	3 or more	35	3-9	4.83	2.02
Order of birth	First	15	-	1	.00
	Second or later	35	2-8	3.20	1.71
Education	Less Educated	20	Illiterate – Left Secondary School	-	-
	More Educated	32	Secondary School-University	-	-
Experience of separation	Yes	14	-	-	-
	No	38	-	-	-
Criminal history of family members	Yes	12	-	-	-
	No	40	-	-	-

Summary of Chi-Square results are provided in Table 3.24. Accordingly, “being respected” was found to be associated with criminal history, $\chi^2(1) = 14.96$, $p < .001$, $r = .55$. Accordingly, the frequency of the participants who had a previous criminal record was higher in the “being respected-yes” group (50%) as compared to the “being respected-no” group (2.1%). Regarding “to be seen as tough”, a significant result was obtained in terms of unemployment, $\chi^2(1) = 7.78$, $p < .01$, $r = .39$. Accordingly, the frequency of the participants who were unemployed was higher in the “to be seen as tough-yes” group (40%) as compared to the “to be seen as tough-no” group (4.3%). In terms of “protecting myself”, a significant association was observed with unemployment, $\chi^2(1) = 4.83$, $p < .05$, $r = .31$. Accordingly, the frequency of the participants who were unemployed was higher in the “protecting myself-yes” group (21.4%) as compared to the “protecting myself-no” group (2.7%). Finally, a significant association was observed with birth order, $\chi^2(1) = 6.36$, $p < .01$, $r = -.36$. Accordingly, the frequency of the participants who were the first child was higher in the “protecting myself-yes” group (57.1%) as compared to the “protecting

myself -no” group (20%). “Protecting myself” was also found to be associated with history of non-violent crime, $\chi^2 (1) = 4.60, p < .05, r = .16$. Accordingly, the frequency of the participants who had a history of non-violent crime was higher in the “protecting myself -yes” group (55.6%) as compared to the “protecting myself -no” group (36.1%). Besides, a significant association was observed with history of violent crime, $\chi^2 (1) = 12.73, p < .001, r = .26$ and history of illegal substance related crime, $\chi^2 (1) = 6.04, p < .01, r = -.18$. Accordingly, the frequency of the participants who had a history of violent crime was higher in the “protecting myself -yes” group (69.4%) as compared to the “protecting myself -no” group (36.8%) On the other hand, the frequency of the participants who had a history of illegal substance related crime was lower in the “protecting myself -yes” group (22.2%) as compared to the “protecting myself -no” group (44.5%).

Table 3.24. Summary of Chi-Square Results between Positive Attributions and Demographic Variables

DV	To Be Respected		To Be Accepted		To Be Seen As Tough		To Protect Myself		Financial Gains	
	χ^2	<i>r</i>	χ^2	<i>r</i>	χ^2	<i>r</i>	χ^2	<i>r</i>	χ^2	<i>r</i>
Age	1.75	-.23	1.75	-.23	.17	-.07	.23	.08	.05	.04
Education	.30	-.08	2.59	-.23	1.20	-.16	.25	-.07	1.07	-.15
Unemployment	1.73	.19	1.73	.19	7.78**	.39	4.83*	.31	.01	.01
Age of beginning to work	.17	.07	.17	.07	.17	.07	1.25	-.18	.21	.08
Number of siblings	.05	.03	.05	.03	.26	.07	1.50	-.18	.18	.06
Order of birth	.76	-.13	.06	.04	.23	-.07	6.36**	-.36	.23	.07
Alcohol use	.53	-.10	.53	-.10	1.74	-.19	.77	-.12	.00	.00
Alcohol usage problem	.28	.08	.79	-.13	.08	.04	.03	-.02	.01	.02
Substance use	.69	.12	.69	.12	.19	.06	.07	-.04	2.48	.22
Separation from the family	.00	.00	1.35	.16	1.86	-.19	1.04	.14	.63	-.11
Violence in the family	.00	.00	.00	.00	1.86	-.19	1.25	-.16	.00	-.01
Living in the street	.13	-.05	.53	.10	.44	-.09	.19	-.06	1.92	.20
Suicide	.04	-.03	.87	.13	2.26	-.21	.36	.09	.14	-.05
Self-harm	.02	-.02	.02	-.02	.37	-.09	.77	-.12	1.16	.15
Criminal history	14.96***	.55	2.81	.24	1.96	.20	2.41	.22	.96	-.14
Criminal history of family members	1.17	-.15	1.17	-.15	1.50	-.17	.00	.00	.22	-.07
History of non-violent crime	.40	.09	2.94	.24	.05	.03	.37	-.09	3.58	.27
History of violent crime	.87	.13	.04	-.03	2.45	.22	1.68	.18	.11	.05
History of sexual crime	.36	-.09	.36	-.09	.46	-.10	1.61	-.18	1.31	-.16

* $p < .05$, ** $p < .01$, *** $p < .001$.

Group comparisons via self-esteem, trait anger, CTS-Assumptions, CTS-Defensive strategies, and external locus of control were investigated through a series of t-test analyses (see Table 3.25). In terms of “to be seen as tough”, a significant result was obtained only for CTS-Assumptions, $t(49) = -2.09, p < .05$. Accordingly, participants who reported “to be seen as tough” as a positive attribution of offending ($M = 75.30$) reported more CTS-Assumptions as compared to the participants who did not report “to be seen as tough” as a positive attribution of offending ($M = 65.25$).

Table 3.25. Summary of T-Test Results for Positive Attributions

DV	To Be Respected			To Be Accepted			To Be Seen As Tough			To Protect Myself			Financial Gains		
	No	Yes	t	No	Yes	t	No	Yes	t	No	Yes	t	No	Yes	t
RSE	29.04	29.25	-.08	29.09	28.75	.13	29.02	29.40	-.16	29.54	27.79	1.15	29.46	27.75	1.07
ANG-T	22.44	20.75	.49	22.73	17.25	-.28	22.30	22.38	-.03	22.44	21.94	.24	21.91	23.57	-.76
CTS-D	33.73	40.00	-1.61	34.00	36.75	-.67	33.87	37.40	-.98	33.32	36.60	-1.39	33.61	36.20	-1.03
LOC	145.03	146.00	-.08	144.07	157.25	1.63	145.60	140.58	.45	147.3	139.2	1.11	146.1	141.9	.54

* $p < .05$, ** $p < .01$.

Note 1. RSE = Self-Esteem, ANG-T = Trait Anger, CTS-D = CTS-Defensive strategies, LOC = Locus of Control

Note 2. For all t scores, $df = 49$

Group comparisons via CTS-assumptions (i.e., EN+PO and CH), stages of change, decisional balance, locus of control, basic personality traits, and anger expression were investigated through a series of MANOVA (see Table 3.26). In terms of “to be respected”, MANOVA results yielded a significant main effect for CTS-Assumptions, Multivariate $F(2, 48) = 3.26, p < .05, \eta^2 = .12$, Wilk’s Lambda = .88. However, univariate analyses failed to provide a significant solution. Regarding “to be seen as tough”, MANOVA results provided a significant main effect for CTS-Assumptions, Multivariate $F(2, 48) = 4.86, p < .01, \eta^2 = .17$, Wilk’s Lambda = .83. Univariate results with bonferroni correction further revealed a significant result for cold-heartedness, $F(1, 49) = 7.78, p < .008$. Accordingly, participants who reported “to be seen as tough” as a positive attribution of offending reported more cold-heartedness ($M = 15.00$) as compared to the participants who did not report “to be seen as tough” as a positive attribution of offending ($M = 9.65$). MANOVA results further yielded a significant main effect for basic personality traits, Multivariate $F(6, 44) = 2.52, p < .05, \eta^2 = .26$, Wilk’s Lambda = .75. Univariate results with bonferroni correction further revealed a significant result for agreeableness, $F(1, 49) = 10.50, p < .008$ and openness to experience, $F(1, 49) = 12.91, p < .008$. Accordingly, participants who reported “to be seen as tough” as a positive attribution of offending reported less agreeableness ($M = 25.40$) and less openness to experience ($M = 17.40$) as compared to the participants who did not report “to be seen as tough” as a positive attribution of offending ($M = 34.08$ and 23.95 for agreeableness and openness to experience, respectively). Finally, regarding “to protect myself”, MANOVA results yielded a significant main effect for decisional balance, Multivariate $F(2, 48) = 3.17, p < .05, \eta^2 = .12$, Wilk’s Lambda = .88. Univariate results with bonferroni correction further revealed a significant result for pros of offending, $F(1, 49) = 4.96, p < .025$, indicating that participants who reported “to protect myself” as a positive attribution of offending ($M = 25.79$) reported more pros of offending as compared to the participants who did not report “to protect myself” as a positive attribution of offending ($M = 20.10$).

Table 3.26. Summary of MANOVA Results for Positive Attributions

DV	To Be Respected			To Be Accepted			To Be Seen As Tough			To Protect Myself			Financial Gains		
	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>
<u>CTS-Assumptions</u> (df = 2, 48)	(η ² = .12, Wilk's Lambda = .88)			(η ² = .02, Wilk's Lambda = .98)			(η ² = .17, Wilk's Lambda = .83)			(η ² = .03, Wilk's Lambda = .97)			(η ² = .02, Wilk's Lambda = .98)		
EN+PO	36.09	42.25	-	36.40	38.50	-	36.10	40.90	-	36.23	37.46	-	36.08	38.17	-
CH	9.83	14.25	-	10.04	11.75	-	9.65	15.00	7.78	9.76	11.29	-	10.03	10.67	-
<u>SOCS-C</u> (df = 4, 46)	(η ² = .05, Wilk's Lambda = .95)			(η ² = .02, Wilk's Lambda = .98)			(η ² = .10, Wilk's Lambda = .90)			(η ² = .07, Wilk's Lambda = .93)			(η ² = .09, Wilk's Lambda = .91)		
PRECON	13.29	14.25	-	13.35	13.50	-	13.27	14.20	-	13.20	13.79	-	13.17	14.00	-
CONT.	29.70	29.50	-	29.46	32.25	-	30.04	26.40	-	30.29	28.07	-	29.63	29.83	-
ACTION	28.77	29.54	-	28.66	30.79	-	28.89	28.23	-	28.87	28.73	-	28.31	30.51	-
MAINT	26.13	23.75	-	25.81	27.50	-	26.26	23.00	-	26.03	25.71	-	26.10	25.42	-
<u>DBS-C</u> (df = 2, 48)	(η ² = .04, Wilk's Lambda = .96)			(η ² = .01, Wilk's Lambda = .99)			(η ² = .08, Wilk's Lambda = .92)			(η ² = .12, Wilk's Lambda = .88)			(η ² = .01, Wilk's Lambda = .99)		
PROS	21.18	27.25	-	21.49	23.75	-	20.88	28.80	-	20.10	25.79	4.96	21.19	23.17	-
CONS	41.27	40.75	-	41.21	41.50	-	41.47	39.00	-	42.32	38.36	1.92	41.23	41.22	-
<u>LOC</u> (df = 5, 45)	(η ² = .07, Wilk's Lambda = .93)			(η ² = .08, Wilk's Lambda = .92)			(η ² = .01, Wilk's Lambda = .99)			(η ² = .07, Wilk's Lambda = .93)			(η ² = .05, Wilk's Lambda = .95)		
INTLOC	46.48	50.75	-	47.21	42.25	-	46.53	49.50	-	45.38	50.61	-	46.35	48.35	-
LOC-C	32.56	33.75	-	32.16	38.50	-	32.73	32.00	-	33.07	31.57	-	32.97	31.63	-
LOC-S	28.09	28.25	-	27.89	30.50	-	28.28	26.40	-	28.43	27.21	-	28.41	27.08	-

Table 3.26 Cont'd

DV	To Be Respected			To Be Accepted			To Be Seen As Tough			To Protect Myself			Financial Gains		
	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>
LOC-F	10.49	12.00	-	10.58	11.00	-	10.61	10.60	-	10.49	10.93	-	10.46	11.08	-
LOC-U	13.63	13.25	-	13.56	14.00	-	13.66	13.00	-	13.85	12.93	-	13.56	13.71	-
<u>BPTI</u> (df = 6, 44)	(η ² = .17, Wilk's Lambda = .83)		1.54	(η ² = .08, Wilk's Lambda = .92)		.64	(η ² = .26, Wilk's Lambda = .75)		2.52*	(η ² = .16, Wilk's Lambda = .84)		1.43	(η ² = .14, Wilk's Lambda = .86)		1.21
E	25.20	29.89	-	25.37	27.89	-	25.48	26.37	.17	25.38	26.06	-	25.97	24.25	-
A	33.59	29.00	-	33.12	34.50	-	34.08	25.40	10.50	34.26	30.50	-	33.58	32.08	-
C	30.98	31.50	-	30.83	33.25	-	31.46	27.00	2.60	31.43	29.93	-	31.87	28.25	-
N	25.60	22.50	-	25.73	21.00	-	25.57	23.40	.67	26.00	23.64	-	25.64	24.45	-
O	23.50	21.00	-	23.35	22.75	-	23.95	17.40	12.91	24.18	21.00	-	23.79	21.75	-
NV	12.87	11.00	-	12.87	11.00	-	12.70	13.00	.04	12.57	13.14	-	12.44	13.67	-
<u>ANGEX</u> (df = 3, 47)	(η ² = .04, Wilk's Lambda = .96)		.66	(η ² = .02, Wilk's Lambda = .98)		.36	(η ² = .11, Wilk's Lambda = .89)		1.89	(η ² = .05, Wilk's Lambda = .95)		.75	(η ² = .03, Wilk's Lambda = .97)		.47
ANGER-IN	16.75	17.75	-	17.01	14.75	-	16.79	17.20	-	16.84	16.80	-	16.90	16.61	-
ANGER-OUT	17.22	16.25	-	17.37	14.50	-	17.25	16.20	-	17.26	16.85	-	16.91	17.91	-
ANGER CONTROL	22.06	21.25	-	21.95	22.50	-	22.29	19.29	-	22.41	20.88	-	21.99	21.99	-

**p* < .05.

Note 1. MF = Multivariate F, UF = Univariate F, EN+PO = Power-oriented assumptions, CH = Cold-heartedness, SOCS-C = Stages of Change Scale for Criminals, PRECON = Precontemplation, CONT = Contemplation, ACTION = Action, MAINT = Maintenance, DBS-C = Decisional Balance Scale for Criminals, LOC = Locus of Control, INT LOC = Internal Locus of Control, LOC-C = Belief in Chance, LOC-S = Insignificance of Struggle, LOC-F = Fatalism, LOC-U = Belief in an Unfair World, BPTI = Basic Personality Traits Inventory, E = Extraversion, A = Agreeableness, C = Conscientiousness, N = Neuroticism, O = Openness to Experience, NV = Negative Valence, ANGEX = Anger Expression

Note 2. For all Univariate F scores, df = 1, 49

3.1.4.4.3.2. Negative Attributions

3.1.4.4.3.2.1. Frequency Analysis of Negative Attributions

Regarding negative attributions, 63.5 % of the participants ($n = 33$) indicated “being sentenced”, 40.4 % of the participants ($n = 21$) indicated “being insulted”, 53.8 % of the participants ($n = 28$) indicated “being stigmatized”, 51.9 % of the participants ($n = 27$) indicated “rejection from the community”, and 59.6 % of the participants ($n = 31$) indicated “degradation” as negative attributions of offending. Moreover, there were some qualitative answers that further supported the cons of offending as “rejection from the community” (i.e., “My friends do not talk with me anymore”, “I do not think my friends will ever accept me”), as “being insulted” (i.e., “I am and will be a person to be humiliated”) and as degradation (i.e., “No one will ever trust me again”). Besides, there were some answers that reflected different cons of offending, such as “feeling of longing” (e.g., “being separated from the family”, “missing the family members and friends”), “loss of time” (e.g., “squandering the most valuable times”), “being isolated from the society”, and “feelings of shame”.

3.1.4.4.3.2.2. Group Comparisons with Negative Attributions

Similar to the analyses for positive attributions, in order to make group comparisons (i.e., participants reporting and not-reporting negative attributions) according to demographic variables, a series of chi-square analyses were conducted separately for each negative attribution. In order to demonstrate the directions of the associations, Pearson’s Rs were also computed.

Summary of Chi-Square results are provided in Table 3.27. Accordingly, “being sentenced” was found to be associated with education, $\chi^2(1) = 5.04, p < .05, r = -.31$. Accordingly, the frequency of the participants who were more educated was lower in the “being sentenced-yes” group (53.1%) as compared to the “being sentenced-no” group (83.3%). Regarding “to be insulted”, a significant result was obtained in terms of separation from family, $\chi^2(1) = 5.67, p < .05, r = .33$.

Accordingly, the frequency of the participants who experienced separation from their families during childhood was higher in the “being insulted-yes” group (42.9%) as compared to the “being insulted-no” group (13.3%).

“To be stigmatized” was found to be associated with education, $\chi^2(1) = 4.31, p < .05, r = -.29$. Accordingly, the frequency of the participants who were more

educated was lower in the “to be stigmatized-yes” group (50%) as compared to the “to be stigmatized -no” group (78.3%). Moreover, a significant association was observed with age of beginning to work, $\chi^2 (1) = 4.87, p < .05, r = -.36$. Accordingly, the frequency of the participants who began working before age 14 was higher in the “to be stigmatized -yes” group (58.3%) as compared to the “to be stigmatized -no” group (21.4%). Besides, being stigmatized was found to be related to separation from family, $\chi^2 (1) = 9.86, p < .01, r = .44$. Accordingly, the frequency of the participants who experienced separation from their families during childhood was higher in the “to be stigmatized -yes” group (42.9%) as compared to the “to be stigmatized -no” group (4.3%). Finally, regarding “degradation”, a significant association was observed with separation from family, $\chi^2 (1) = 4.16, p < .05, r = .29$. Accordingly, the frequency of the participants who experienced separation from their families during childhood was higher in the “degradation -yes” group (64.5%) as compared to the “degradation -no” group (10%).

Table 3.27. Summary of Chi-Square Results between Negative Attributions and Demographic Variables

DV	Being sentenced		To be insulted		Being Stigmatized as a Criminal		Rejection from the Community		Degradation	
	χ^2	<i>r</i>	χ^2	<i>r</i>	χ^2	<i>r</i>	χ^2	<i>r</i>	χ^2	<i>r</i>
Age	3.16	-.31	.29	.09	.16	.07	.73	.15	.44	.12
Education	5.04*	-.31	.48	-.10	4.31*	-.29	1.27	-.16	.74	-.12
Unemployment	.40	-.09	.46	-.10	.69	.12	3.78	.28	.21	-.06
Age of beginning to work	1.19	-.18	1.80	-.22	4.87*	-.36	.01	-.02	.44	-.11
Number of siblings	.34	.08	2.85	-.24	.99	-.14	3.22	-.25	.00	.00
Order of birth	.62	-.11	2.59	-.23	.80	-.13	2.90	-.24	.11	-.05
Alcohol use	.39	.09	3.28	.25	.63	.11	.35	.08	2.02	.20
Alcohol usage problem	.44	.09	.30	.08	.09	-.04	.89	-.13	.45	-.10
Substance use	1.08	.15	.75	.12	1.81	.19	.79	-.13	.62	.11
Separation from the family	1.14	.15	5.67*	.33	9.86**	.44	1.86	.19	4.16*	.29
Violence in the family	.16	.06	2.99	.24	3.42	.26	.52	.10	.00	.01
Living in the street	.00	.00	.00	.00	.04	-.03	.00	.00	.17	.06
Suicide	.04	.03	.26	.07	.22	.07	.00	.01	.50	-.10
Self-harm	2.21	.21	2.70	.23	.44	.09	.16	.06	2.21	.21
Criminal history	1.71	.19	.08	-.04	.59	-.11	.48	-.10	.99	-.14
Criminal history of family members	.40	.09	.13	-.05	.00	.00	.32	-.08	1.38	-.17
History of non-violent crime	.69	.12	2.38	.22	1.56	.18	2.10	.20	.00	.01
History of violent crime	.04	.03	.01	-.02	2.92	.24	.00	.01	1.78	-.19
History of sexual crime	2.32	.22	2.01	.20	.04	-.03	.83	.13	2.75	.23

* $p < .05$, ** $p < .01$, *** $p < .001$.

Group comparisons via self-esteem, trait anger, CTS-Assumptions, CTS-Defensive strategies, and external locus of control were investigated through a series of t-test analyses (see Table 3.28). However, the results did not provide any significant association between negative attributions of offending and aforementioned variables.

Table 3.28. Summary of T-Test Results for Negative Attributions

DV	Being sentenced			To be insulted			Being Stigmatized as a Criminal			Rejection from the Community			Degradation		
	No	Yes	t	No	Yes	t	No	Yes	t	No	Yes	t	No	Yes	t
RSE	28.72	29.24	-.36	28.03	30.52	-1.84	28.91	29.18	-.19	28.04	29.96	-1.42	27.95	29.77	-1.31
ANG-T	24.44	21.14	1.75	23.57	20.50	1.67	23.47	21.34	1.16	23.17	21.54	.88	24.05	21.18	1.55
CTS-D	35.72	33.40	1.04	33.51	35.24	-.80	33.25	35.01	-.82	34.55	33.93	.29	35.06	33.68	.63
LOC	149.99	142.44	1.11	145.81	144.1	.26	147.89	142.82	.77	142.23	143.22	.61	143.07	146.42	-.50

* $p < .05$.

Note 1. RSE = Self-Esteem, ANG-T = Trait Anger, CTS-D = CTS-Defensive strategies, LOC = Locus of Control

Note 2. For all t scores, $df = 49$

Group comparisons via CTS-Assumptions (i.e., EN+PO and CH), stages of change, decisional balance, locus of control, basic personality traits, and anger expression were investigated through a series of MANOVA (see Table 3.29). However, the results did not provide any significant association between negative attributions of offending and aforementioned variables.

Table 3.29. Summary of MANOVA Results for Negative Attributions

DV	Being sentenced			To be insulted			Being Stigmatized as a Criminal			Rejection from the Community			Degradation		
	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>
<u>CTS-Assumptions</u> (df = 2, 48)	(η ² = .10, Wilk's Lambda = .91)			(η ² = .04, Wilk's Lambda = .96)			(η ² = .00, Wilk's Lambda = .99)			(η ² = .03, Wilk's Lambda = .97)			(η ² = .03, Wilk's Lambda = .97)		
EN+PO	36.41	36.66	-	36.21	37.08	-	36.28	36.80	-	38.06	35.24	-	37.89	35.72	-
CH	8.39	11.15	-	10.87	9.19	-	10.13	10.21	-	10.25	10.11	-	10.75	9.81	-
<u>SOCS-C</u> (df = 4, 46)	(η ² = .05, Wilk's Lambda = .95)			(η ² = .09, Wilk's Lambda = .91)			(η ² = .03, Wilk's Lambda = .97)			(η ² = .03, Wilk's Lambda = .97)			(η ² = .04, Wilk's Lambda = .96)		
PRECON	13.50	13.29	-	13.03	13.83	-	13.67	13.11	-	13.52	13.22	-	13.85	13.05	-
CONT.	30.89	29.02	-	29.43	30.03	-	30.47	29.04	-	30.38	29.06	-	29.90	29.54	-
ACTION	30.17	28.10	-	28.03	29.96	-	29.09	28.61	-	29.71	28.04	-	28.35	29.13	-
MAINT	27.56	25.06	-	26.20	25.57	-	26.57	25.43	-	26.46	25.48	-	26.35	25.68	-
<u>DBS-C</u> (df = 2, 48)	(η ² = .06, Wilk's Lambda = .95)			(η ² = .10, Wilk's Lambda = .90)			(η ² = .01, Wilk's Lambda = .99)			(η ² = .02, Wilk's Lambda = .98)			(η ² = .01, Wilk's Lambda = .99)		
PROS	19.0	23.11	-	23.16	19.51	-	22.24	21.18	-	22.52	20.89	-	22.25	21.28	-
CONS	41.8	40.93	-	39.26	44.05	-	40.99	41.42	-	40.24	42.11	-	40.89	41.45	-

Table 3.29. Cont'd

DV	Being sentenced			To be insulted			Being Stigmatized as a Criminal			Rejection from the Community			Degradation		
	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>
<u>LOC</u> (df = 5, 45)	(η ² = .11, Wilk's Lambda = .89)			(η ² = .05, Wilk's Lambda = .95)			(η ² = .09, Wilk's Lambda = .91)			(η ² = .08, Wilk's Lambda = .92)			(η ² = .17, Wilk's Lambda = .83)		
INTLOC	42.58	49.13	-	46.79	46.86	-	45.92	47.55	-	45.63	47.87	-	47.56	46.34	-
LOC-C	32.61	32.69	-	32.85	32.38	-	32.85	32.50	-	32.27	33.00	-	32.58	32.71	-
LOC-S	29.00	27.61	-	28.13	28.05	-	29.22	27.18	-	28.67	27.59	-	27.10	28.74	-
LOC-F	11.06	10.36	-	10.50	10.76	-	10.57	10.64	-	11.00	10.26	-	10.05	10.97	-
LOC-U	14.00	13.38	-	14.15	12.81	-	14.72	12.68	-	14.15	13.11	-	14.68	12.90	-
<u>BPTI</u> (df = 6, 44)	(η ² = .08, Wilk's Lambda = .92)			(η ² = .06, Wilk's Lambda = .94)			(η ² = .09, Wilk's Lambda = .92)			(η ² = .07, Wilk's Lambda = .93)			(η ² = .09, Wilk's Lambda = .91)		
E	24.18	26.33	-	25.62	25.49	-	25.02	26.02	-	25.95	25.23	-	26.09	25.24	-
A	33.21	33.24	-	32.40	34.42	-	31.83	34.38	-	32.46	33.92	-	31.45	34.38	-
C	31.11	30.97	-	30.13	32.29	-	30.00	31.86	-	30.58	31.41	-	30.55	31.32	-
N	26.00	25.00	-	25.45	25.23	-	26.50	24.42	-	25.35	25.36	-	25.62	25.19	-
O	23.17	23.38	-	22.67	24.22	-	22.42	24.04	-	22.44	24.07	-	22.45	23.86	-
NV	13.33	12.39	-	12.73	12.71	-	12.96	12.54	-	12.42	13.00	-	13.10	12.48	-

Table 3.29. Cont'd

DV	Being sentenced			To be insulted			Being Stigmatized as a Criminal			Rejection from the Community			Degradation		
	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>	No	Yes	<u>MF/UF</u>
<u>ANGEX</u> (df = 3, 47)	(η ² = .09, Wilk's Lambda = .91)			(η ² = .11, Wilk's Lambda = .89)			(η ² = .03, Wilk's Lambda = .98)			(η ² = .04, Wilk's Lambda = .96)			(η ² = .14, Wilk's Lambda = .86)		
ANGER-IN	17.68	16.37	-	16.61	17.14	-	17.62	16.18	-	17.21	16.49	-	15.75	17.52	-
ANGER-OUT	16.66	17.41	-	17.45	16.71	-	17.63	16.75	-	17.57	16.77	-	16.00	17.89	-
ANGER-CONTROL	22.15	21.91	-	20.76	23.74	-	21.88	22.09	-	21.23	22.67	-	20.52	22.94	-

Note 1. MF = Multivariate F, UF = Univariate F, EN+PO = Power-Oriented Assumptions, CH = Cold-Heartedness, SOCS-C = Stages of Change Scale for Criminals, PRECON = Precontemplation, CONT = Contemplation, ACTION = Action, MAINT = Maintenance, DBS-C = Decisional Balance Scale for Criminals, PROS = Pros of offending, CONS = Cons of offending, LOC = Locus of Control, INT LOC = Internal Locus of Control, LOC-C = Belief in Chance, LOC-S = Insignificance of Struggle, LOC-F = Fatalism, LOC-U = Belief in an Unfair World, BPTI = Basic Personality Traits Inventory, E = Extraversion, A = Agreeableness, C = Conscientiousness, N = Neuroticism, O = Openness to Experience, NV = Negative Valence, PANAS = Positive and Negative Affect Schedule, ANGEX = Anger Expression, ANGER-IN = Anger Expression-in, ANGER-OUT = Anger Expression Out.

Note 2. For all Univariate F scores, df = 1, 49

3.1.5. Discussion

3.1.5.1. Psychometric Properties of CTS

Regarding CTS-Assumptions scale, Power-Oriented Assumptions and Cold-Heartedness revealed internal consistency coefficients that were comparable with the previous studies. However, in terms of Injustice-Oriented Assumptions, the results were discouraging. As mentioned in the literature review, exercising power and dominance are frequently cited motivations of offending among young people (Barry, 2006, 2007). Prior studies further associated psychopathic traits and emotional repression (Edens, Skeem, Cruise, & Cauffman, 2001; Frick, O'Brien, Wootton, & McBurnett, 1994) with juvenile delinquency. Hence, power-oriented assumptions and cold-heartedness might be applicable for young people. However, few writers have been able to draw on any structured research into the injustice-oriented assumptions among juvenile offenders. In their thorough examination of belief in a just world (BJW) among young offenders, Otto and Dalbert (2004) were able to show that BJW provided a great deal of information in terms of juveniles' feelings of guilt, denial of responsibility, and anger-management. Nevertheless, young prisoners who had longer criminal careers, offended at a younger age, or who were incarcerated for a longer period of time did not meet with the expectations of Otto and Dalbert (2004). A possible explanation for this might be that, as young offenders encounter with legal proceedings, their injustice-oriented assumptions might change, they might learn new strategies to cope with the unjust treatment that they experience, and they might develop defensive reactions. In fact, taking into account the developmental concerns of adolescents (both cognitive and personality), caution should be taken while mentioning about the "beliefs" and "assumptions", since they are expected to be highly flexible during this stage of development.

In general, the findings of the concurrent validity analyses were observed to be comparable with that of adults. For instance, power-oriented assumptions were found to be strongly associated with neuroticism and external locus of control. Surprisingly, both pros and cons of offending were positively associated with power-oriented assumptions. This finding might be signaling the flexible nature of assumptions among adolescents, suggesting that the young offenders might have difficulty in figuring out what contributed to their criminal activity and which

thinking patterns would provide obstacles for them if they were to desist from criminality. In addition, power-oriented assumptions were observed to be related to trait anger and both anger expression-in and anger-expression-out, which supports earlier observations indicating that exercising power and dominance are commonly associated with aggression among young people (Barry, 2006, 2007). Cold-heartedness also yielded similar findings with that of adult sample. Additionally, a negative relationship was obtained between cold-heartedness and anger-control, which corroborates with previous findings that psychopathic traits among young offenders might reflect poor emotional responsivity (Herpers, Scheepers, Bons, Buitelaar, & Rommelse, 2013). Overall, these results suggest that the mechanisms of offence-supportive assumptions might be similar among adolescents and adults. However, their contents might be different regarding different life concerns. Besides, a further study with more focus on the flexible nature of assumptions among adolescents is recommended.

Regarding CTS-Defensive Strategies Scale, the reliability results were again disappointing, although the total score yielded an acceptable internal consistency coefficient. The concurrent validity analyses, however, provided insight about the problems in reliability. In general, defensive strategies revealed strong associations with external locus of control, a finding which is similar to that of adult sample. On the other hand, it was observed that, defensive strategies were positively associated with negative valence, cons of offending, and all motivational stages of change. This rather contradictory results may be again due to the flexible nature of cognitive characteristics of adolescents. Specifically, defensive strategies are suggested to be stemming from feelings of guilt and threat to self-respect (which is supported by the positive associations with negative valence and anger expression-in as well as by the negative association with self-esteem). Adolescents' resources, however, might be limited for resolving this conflict, hence their defensive strategies might occasionally reflect engagement for treatment or vice versa. Positive relationship revealed between defensive strategies and anger-control (see Section 3.1.4.2.2.2. for criterion validity analyses) further indicated that defensive strategies might reflect a need for coping among adolescents. Therefore, it is recommended that, interventions focusing on the defensive strategies of young offenders should be developed, in order to help

them to give meaning to their criminal and imprisonment experiences in an adaptive way.

3.1.5.2. Psychometric Properties of SOCS-C

Reliability analyses provided good internal consistency coefficients for all dimensions of SOCS-C (i.e., precontemplation, contemplation, action, and maintenance). Precontemplation dimension needed to be revised, as it was observed that some items were not understood by the participants. Besides, concurrent validity findings were generally comparable with that of adult sample. Still, minor differences were observed. For instance, precontemplation, contemplation, and action yielded positive associations with anger-control, which were unexpected. A possible explanation for this might be that, anger-control among young offenders might have dual meanings among young offenders, reflecting both a defensive attitude and motivation to change. The present study was unable to provide answer to this question, due to the limited sample size. However, further work is required to establish this. Moreover, contemplation and action were positively associated with age of beginning to work. Engagement in work life at young ages was an important characteristic of the sample, with 92.3 % of the participants reporting that they began working before 16 years old. The issue of working children is highly controversial in the literature, with recent accounts generally suggesting that working might be both harmful and helpful for children and that the differentiating conditions should be clarified and policy attempts should be drawn accordingly (Levison, 2009). In the current study, participants provided ambivalent responses regarding their work experiences. They mentioned about both advantages (e.g., gaining power, acceptance, confidence) and disadvantages (e.g., being unable to protect one's self against possible threats) of beginning to work at young ages. However, the positive association between age of beginning to work and motivation to change implies that, age might be a moderator variable, with relatively older ones experiencing more advantages than disadvantages. Another interesting finding was obtained in terms of negative valence, yielding negative association with both contemplation and action. Besides, as previously noted, defensive strategies provided positive association with both stages. Taking it together, it can be suggested that contemplating or actively involving in the change process reflect dealing with the negative attributions towards

self. However, defensive strategies might be operating as a booster, rather than obstacle, during this process. In addition, as different from adults, all stages except precontemplation yielded positive association with cons of offending. This is an expected finding since cons of offending is expected to outweigh pros of offending in these stages. Alternatively, young prisoners might be more prone to perceive negative consequences of offending, as compared to adults, because of their limited criminal experience.

3.1.5.3. Psychometric Properties of DBS

Reliability analyses provided good internal consistency coefficients for both dimensions of DBS-C (i.e., pros and cons of offending). Besides, concurrent validity findings were again comparable with that of adult sample. An interesting finding was obtained in terms of anger-control, which revealed opposite associations with pros and cons of offending. This finding accords with earlier observations, which showed that difficulty in regulating anger might facilitate criminal behavior (Novaco, 2011). However, one unanticipated finding was that, cons of offending yielded positive association with anger-expression-in. It seems possible that this result is due to young offenders' difficulties in coping with imprisonment experience and particularly feelings of guilt. Hence, it is strongly recommended that, although high levels of cons of offending and anger-control are desired conditions in forensic interventions, practitioners should specifically attend to adolescents' coping with the negative consequences of offending.

3.1.5.4. Positive and Negative Attributions Related to Offending

Although the factors associated with pros and cons of offending (as well as other variables) were generally in common with that of adults, examination of the contents of the motivations for offending revealed dissimilar characteristics. For instance, in terms of positive attributions, "financial gains" were secondary for young people who reported "to protect myself" as the most frequent motivation for offending. In addition "to be seen as tough" and "to protect myself" were found to be positively associated with unemployment. This finding, while preliminary, accords with the earlier suggestions made about the possible advantages of working for this sample. Hence, young people (especially who are at risk) might benefit from a secure work environment where they can feel protected, able to defend themselves, and

where they can exercise the need for power in a pro-social way. However, taking into account the fact that it is illegal to employ children younger than 15 years of age, it is difficult to expect the work environment to be secure enough to meet the developmental needs of the young person. Another interesting result was obtained in terms of “to be seen as tough”, which revealed positive association with cold-heartedness and negative associations with agreeableness and openness to experience. Hence, providing a powerful image might require leaving being emotional and developing psychopathic traits among young offenders.

In terms of negative attributions, experience of long-term separation from family was found to be positively associated with most of the negative consequences reported (i.e., being insulted, being stigmatized, and degradation). This finding was unexpected, taking into account the assumption that being aware of negative consequences of offending is important to desist from criminality. However, it is also possible that, these participants might be more open to the aforementioned consequences. Hence, long-term separation from family might be an important risk factor for this sample, leading the young person feeling unprotected from environmental threats.

To sum up, these results support the previous suggestions that, adolescents and adults might share similar psychological mechanisms regarding motivations for offending. But the content of their motivations might vary due to different life concerns. It should be noted that, with a small sample size, caution must be applied. Future studies on the current topic are therefore recommended.

3.2. STUDY II.B: COMPARISONS BETWEEN JUVENILE, YOUNG ADULT, AND ADULT PARTICIPANTS

3.2.1. Introduction

As previously noted, adolescents are suggested to differ from adults in many respects, for instance, in terms of cognitive development (Iselin et al., 2009; Moshman, 2011), identity development (Erikson, 1963), and concern in their lives (Arnett, 2007). Several studies have revealed that, dynamics of delinquent peer relations (e.g., seeking acceptance and/or fear of rejection) significantly contribute to adolescents' offending behaviors (Barry, 2006; Patterson & Dishion, 1985). Furthermore, changes in responsibilities (e.g., engagement in school and/or work, Hoge, Andrews, & Leschied, 1996) and relationships (Iselin, et al., 2009) might be associated with criminality. Studies have recently demonstrated that, young adult offenders might have concerns comparable to that of adolescents (Fougere, Thomas, & Daffern, 2012) and both groups might share similar characteristics in terms of cognitive functioning (Farrington, Loeber, & Howell, 2012). As frequently implied in the intervention studies, attending to the developmental needs contribute a lot to the treatment effectiveness (Guerra & Leaf, 2008; Guerra, Williams, Tolan, & Modecki, 2008). Within this respect, examining the specific needs of different age groups is suggested to provide insight into the developmental nature of criminality.

3.2.2. Aim of the Study

The present study aimed at determining common and differing characteristics among adolescent, young adult, and adult offenders. Within a developmental framework, young adults are hypothesized to share common characteristics with both adolescents and adult participants. For instance, younger participants were expected to display less neuroticism as compared to adult offenders. On the other hand, older participants were hypothesized to report more agreeableness and conscientiousness than adolescents. Finally, relying on the suggestions of previous research, older participants were expected to convey more assumptions, whereas younger participants were hypothesized to display more defensive strategies.

3.2.3. Method

3.2.3.1. Participants and Procedure

The sample of the present study was generated by merging the two data sets (i.e., adult and juvenile samples), whereby the total number of participants turned out to be 252. In order to make age-group comparisons, three groups were formulated considering the developmental stages (i.e., adolescents, young adults, and adults). Taking into account that the juvenile participants encounter with different legal proceedings as compared to the adult participants, the juvenile sample was kept as the same and consisted of the “adolescents” group ($n = 52$) with ages ranging from 14 to 17 ($M = 16.42$, $SD = .87$). On the other hand, the adult sample was divided into half via median split. Thus the “young adults” group consisted of 96 participants with ages ranging from 18 to 31 ($M = 26.54$, $SD = 3.58$), whereas the “adults” group consisted of 102 participants with ages ranging from 32 to 66 ($M = 41.32$, $SD = 8.24$). The participant characteristics as well as the procedure were explained in detail in the method sections of Study I.A and Study II.A.

3.2.3.2. Measures

The measures of the present study consisted of the common assessments shared by both Study I and Study II A. These measures were Criminal Thinking Scale (Assumptions and Defensive Strategies Scale), Stages of Change for Criminals Scale (SOCS-C), Decisional Balance Scale (DBS-C), Rosenberg Self-Esteem Scale (RSE), Locus of Control Scale (LOC), and Basic Personality Traits Inventory (BPTI). In general, the internal consistency coefficients for the scales (and their sub-scales) were within the acceptable ranges for both samples. However, it should be noted that, the Injustice-Oriented Assumptions sub-scale (CR) of the CTS-Assumptions Scale yielded considerably low alpha coefficient for the juvenile sample. Thus, CR was excluded from further analyses. Besides, the total score of the Defensive Strategies Scale (CTS-D) was utilized for the juvenile sample (see Section 3.1.4.2. for details). Therefore, for the present study, the total score of CTS-D was computed for the adult sample as well, which revealed a good internal consistency coefficient ($\alpha = .70$).

3.2.3.3. Statistical Analyses

The age-group comparisons were conducted via subsequent ANOVAs and MANOVAs. Accordingly, age-group was the independent variable and the total score of DBS-C and self-esteem were dependent variables in ANOVAs, whereas the subscales of the CTS-Assumptions Scale (CTS-A), SOCS-C, DBS-C, LOC, and BPTI were the dependent variables in MANOVAs.

3.2.4. Results

Age-group comparisons via CTS-defensive strategies and self-esteem were investigated through a series of ANOVAs (see Table 3.30). Accordingly, a significant main effect was observed only in terms of defensive strategies, $F(2, 247) = 54.74, p < .001$. Subsequent post-hoc analysis revealed that adolescent participants ($M = 34.16$) reported less defensive strategies as compared to the young adult ($M = 57.28$) and adult participants ($M = 54.75$). Univariate results with bonferroni correction further revealed a significant result for cold-heartedness, $F(1, 49) = 7.78, p < .008$.

Table 3.30. Summary of the ANOVA results for age-group comparisons via CTS-D and Self-Esteem

DV	F	Age-Groups		
		Adolescents	Young-Adults	Adults
CTS-Defensive Strategies	54.74***	34.16a	57.28b	54.75b
Self-Esteem	2.10	29.14	30.05	30.86

*** $p < .001$.

Note 1. For all variables $df = 2, 247$.

Note 2. The mean scores that do not share the same subscript on the same row are significantly different from each other.

Group comparisons via CTS-assumptions (i.e., EN+PO and CH), stages of change, decisional balance, locus of control, and basic personality traits were investigated through a series of MANOVAs (see Table 3.31). Accordingly, MANOVA results yielded a significant main effect for CTS-Assumptions, Multivariate $F(4, 492) = 24.50, p < .001, \eta^2 = .17, \text{Wilk's Lambda} = .70$. When the univariate analyses with Bonferroni correction ($p = .05/2 = .025$) were examined, a significant result was observed for power-oriented assumptions (i.e., EN+PO), $F(2, 247) = 33.97, p < .025$. Hence, young adult participants ($M = 55.19$) reported more

power-oriented assumptions as compared to the adult participants ($M = 49.88$), who also reported more power-oriented assumptions than the adolescent participants ($M = 36.73$). Univariate results further provided a significant difference in terms of cold-heartedness, $F(2, 247) = 17.90, p < .025$, indicating that young adult ($M = 15.43$) and adult participants ($M = 15.18$) reported more cold-heartedness than the adolescent participants ($M = 10.29$). Another significant main effect was obtained in terms of stages of change, Multivariate $F(8, 488) = 16.39, p < .001, \eta^2 = .21$, Wilk's Lambda = .62. When the univariate analyses with Bonferroni correction ($p = .05/4 = .013$) were examined, a significant result was observed only for precontemplation, $F(2, 247) = 57.70, p < .013$. Accordingly, young adult ($M = 21.91$) and adult participants ($M = 22.74$) reported more precontemplation as compared to the adolescent participants ($M = 13.36$). MANOVA results further yielded a significant main effect of decisional balance, Multivariate $F(4, 492) = 3.80, p < .01, \eta^2 = .03$, Wilk's Lambda = .94. When the univariate analyses with Bonferroni correction ($p = .05/2 = .025$) were examined, a significant result was observed only for cons of offending, $F(2, 247) = 4.90, p < .025$. Accordingly, adult participants ($M = 45.66$) reported more cons of offending than the adolescent participants ($M = 41.05$). However, young adult participants ($M = 44.99$) did not differ from adult and adolescent participants in terms of cons of offending. Another significant main effect was obtained in terms of locus of control, Multivariate $F(10, 486) = 4.88, p < .001, \eta^2 = .09$, Wilk's Lambda = .83. When the univariate analyses with Bonferroni correction ($p = .05/5 = .01$) were examined, a significant result was observed for internal locus of control, $F(2, 247) = 9.99, p < .01$. Accordingly, adolescent participants ($M = 46.94$) reported more internal locus of control as compared to the young adult ($M = 39.60$) and adult participants ($M = 37.06$). Univariate results further provided a significant difference in terms of belief in chance, $F(2, 247) = 8.01, p < .01$. Similarly, adolescent participants ($M = 32.66$) reported more belief in chance as compared to the young adult ($M = 29.93$) and adult participants ($M = 28.32$). Finally, main effect of basic personality traits was significant, Multivariate $F(12, 484) = 5.06, p < .001, \eta^2 = .11$, Wilk's Lambda = .79. When the univariate analyses with Bonferroni correction ($p = .05/6 = .008$) were examined, a significant result was observed for extraversion, $F(2, 247) = 9.75, p < .008$. Accordingly, young

adult ($M = 28.09$) and adult participants ($M = 29.82$) reported more extraversion as compared to the adolescent participants ($M = 25.65$). Univariate results further provided a significant difference in terms of agreeableness, $F(2, 247) = 10.29, p < .008$. Similarly, young adult ($M = 36.44$) and adult participants ($M = 36.22$) reported more agreeableness as compared to the adolescent participants ($M = 33.21$). In addition, a significant difference was observed in terms of conscientiousness, $F(2, 247) = 5.46, p < .008$. Accordingly, young adult ($M = 33.61$) and adult participants ($M = 33.98$) reported more conscientiousness as compared to the adolescent participants ($M = 31.00$). Another significant difference was obtained in terms of neuroticism, $F(2, 247) = 6.22, p < .008$, indicating that adolescent ($M = 25.33$) and young adult participants ($M = 25.02$) reported more neuroticism as compared to the adult participants ($M = 21.87$). Lastly, Univariate results provided a significant difference in terms of negative valence, $F(2, 247) = 19.28, p < .008$. Accordingly, adolescent participants ($M = 12.71$) reported more negative valence as compared to the young adult participants ($M = 11.16$), who also reported more negative valence than the adult participants ($M = 9.07$).

Table 3.31. Summary of the MANOVA results for age-group comparisons

DV	Multivariate F	df	η^2	Wilk's Lambda	Univariate F	df	Age-Groups		
							Adolescents	Young- Adults	Adults
<u>CTS-</u> <u>Assumptions</u>	24.50***	4, 492	.17	.70		2, 247			
EN+PO					33.97		36.73a	55.19c	49.88b
CH					17.90		10.29a	15.43b	15.18b
<u>SOCS-C</u>	16.39***	8, 488	.21	.62		2, 247			
PRECON					57.70		13.36a	21.91b	22.74b
CONT					.25		29.55	30.27	30.10
ACTION					3.70		28.64	31.00	31.54
MAINT					.95		25.77	25.86	24.64
<u>DBS-C</u>	3.80**	4, 492	.03	.94		2, 247			
PROS					3.25		21.84	20.29	18.62
CONS					4.90		41.05a	44.99ab	45.66b
<u>LOC</u>	4.88***	10, 486	.09	.83		2, 247			
INTLOC					9.99		46.94a	39.60b	37.06b
LOC-C					8.01		32.66a	29.93b	28.32b
LOC-S					3.03		28.10	28.08	25.41
LOC-F					1.27		10.56	11.13	11.38
LOC-U					.41		13.53	13.32	12.86

Table 3.31. Cont'd

DV	Multivariate F	df	η^2	Wilk's Lambda	Univariate F	df	Age-Groups		
							Adolescents	Young- Adults	Adults
<u>BPTI</u>	5.06***	12, 484	.11	.79		2, 247			
E					9.75		25.65a	28.09b	29.82b
A					10.29		33.21a	36.44b	36.22b
C					5.46		31.00a	33.61b	33.98b
N					6.22		25.33a	25.02a	21.87b
O					2.70		23.36	25.02	24.46
NV					19.28		12.71a	11.16b	9.07c

* $p < .05$, ** $p < .01$, *** $p < .001$.

Note 1. EN+PO = Power-Oriented Assumptions, CH = Cold-Heartedness, SOCS-C = Stages of Change Scale for Criminals, PRECON = Precontemplation, CONT = Contemplation, ACTION = Action, MAINT = Maintenance, DBS-C = Decisional Balance Scale for Criminals, PROS = Pros of offending, CONS = Cons of offending, LOC = Locus of Control, INT LOC = Internal Locus of Control, LOC-C = Belief in Chance, LOC-S = Insignificance of Struggle, LOC-F = Fatalism, LOC-U = Belief in an Unfair World, BPTI = Basic Personality Traits Inventory, E = Extraversion, A = Agreeableness, C = Conscientiousness, N = Neuroticism, O = Openness to Experience, NV = Negative Valence.

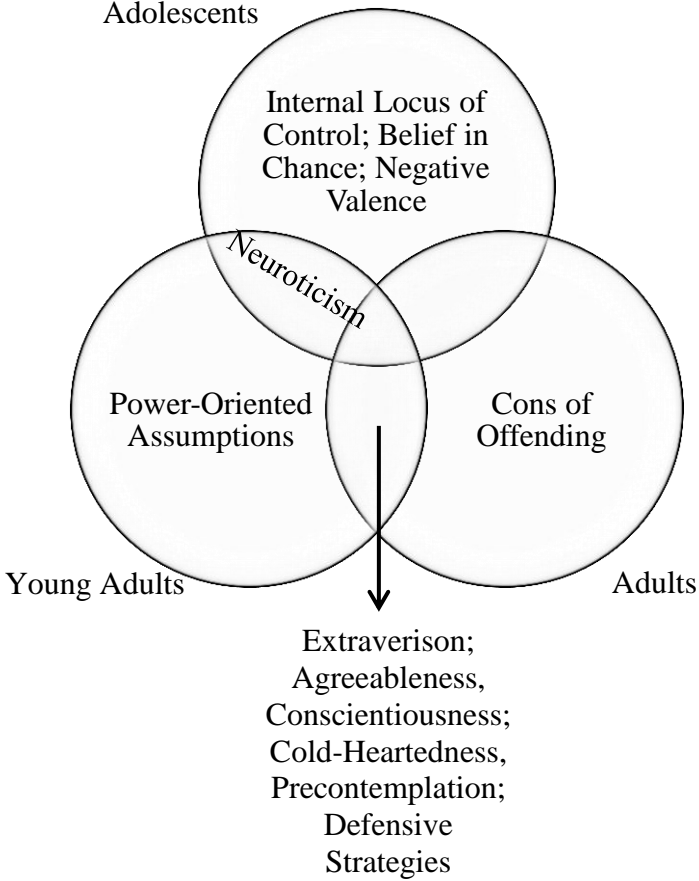
Note 2. The mean scores that do not share the same subscript on the same row are significantly different from each other.

3.2.5. Discussion

Summary of the findings are illustrated in Figure 3.1. Adolescents basically displayed higher levels of internal locus of control, negative valence, and belief in chance as compared to older participants. This is an interesting finding, reflecting that difficulties in coping with feelings of guilt and diminished self-worth were more salient for adolescents, probably because they had limited resources for making an understanding of their experiences and they did not develop external attribution strategies yet, contrary to older participants. As expected, both adolescents and young adults scored higher on neuroticism, supporting the existing literature that impulsivity decelerates with aging (Farrington et al., 2012). However, young adults uniquely differed from other age groups by reporting highest on power-oriented assumptions. This finding corroborates with suggestions regarding the developmental concerns of young adults, such as taking more responsibility via employment and marriage (Farrington et al., 2012). In parallel with the hypotheses, older participants generally scored higher on the offence-supportive assumptions. However, contrary to the expectations, they also scored higher on the defensive strategies. A possible explanation for this might be that, unlike adolescents, defensive strategies of adults rather have a schema-maintaining function. Therefore, they might be more rigid. Moreover, older participants reported higher extraversion, agreeableness, and conscientiousness. This finding supports previous research suggesting that these personality traits develop and settle down with age, as people gain more responsibility in their life and in their relationships with others. However, what is surprising is that, they do not seem to be protective over the operation of offence-supportive assumptions and defensive strategies. Additionally, older participants scored higher on precontemplation, indicating that adolescents might be more open to receiving help and making a change in their lives. Finally, adult participants reported more cons of offending as compared to other age-groups, providing support for the age-crime curve hypothesis (Farrington, 1986).

To sum up, young people are commonly cited as the riskiest group in terms of criminal behavior. However, the present study challenges this assumption, indicating that, although they convey certain characteristics (such as impulsivity) that facilitate offending, they are more open for receiving help. In addition, since it is too early for

adolescents to develop rigid offence-supportive assumptions and defensive strategies, they might benefit more from the interventions which specifically focus on coping with the negative consequences of criminality and making a positive understanding of the experiences.



Note. The factors mentioned in the clusters reflect that the participants in a given cluster scored highest on that dimensions.

Figure 3.1. Summary of Age-Group Differences

CHAPTER IV

OVERVIEW AND GENERAL DISCUSSION

4.1. General Findings

One of the major aims of the present dissertation was to evaluate the concept of criminal thinking, according to its relatively more stable (i.e., offence-supportive assumptions) and temporal components (i.e., defensive strategies). Both were highly associated with each other, being external locus of control the common characteristic. However, it was shown that defensive strategies were generally observed to be related with an anxious state and a need to cope with negative emotions, whereas offence-supportive assumptions were indicative of a general mistrust in others and/or more rigid personality characteristics. Furthermore, notwithstanding some insignificant results, defensive strategies operated differently in the presence or absence of offence-supportive assumptions. Taken together, these findings suggest a dual function of defensive strategies; with either enhancing (or protecting) self-worth or confirming schema maintenance. Besides, considering that the offence-supportive assumptions are more flexible during adolescence, the “coping” function of defensive strategies was more readily observed in the juvenile sample. Therefore, it is believed that, the present study has gone some way towards enhancing our understanding of criminal thinking; as to why it should be differentiated into “assumptions and defensive strategies” and how it would signal a need for coping for some offenders while it is criminogenic for others.

An investigation of the associated factors with each offence-supportive assumption revealed important findings in terms of how “exercising power” is crucial in understanding the mechanisms of male offending behavior. As previously discussed in detail, need for power is commonly explained in terms of masculinity. Accordingly, for the males to have “physical, financial, and psychological power” is commonly reinforced in the societies. This is not only evident in gender relations where women are generally subjected to discriminative attitude as being “weaker, need to be protected, need to be controlled”, but also in male relations where achieving a status in the society is defined in terms of having power. In Turkey, the

relation between power and masculinity is also evident and defined in the socialization process; as for a young boy to “become a man”, he must show that he is physically strong, he has an ability to control and protect his family (and women around him), he must be financially and morally responsible from his family, and he must gain some status in his environment. These expectations and requirements that the society build over male socialization seem to be highly responsible from how an indication of “feeling powerless” might be threatening for males and how “achieving a powerful status in advance” is perceived as so important. The present study provided further evidence regarding that the link between “power motivation” and criminality is mostly explained by an underlying belief of “not having power and/or control”. Hence, it seems likely that the male socialization process does not provide any opportunity as to how to cope (in prosocial means) with the perception of self as weak and unable to control.

The link between power, masculinity, and criminality is also important in understanding female criminality. Aside from the rules and expectations that are generated during the gender socialization process, a need for power is appreciated as an important part of human psychology. However, in the societies where having power is highly linked with the masculinity, women generally engage in a socialization process during which they learn, exercise, and normalize their powerless and dependent status. Yet, they engage in some struggles to gain ground in the “males’ world”, which is also evident in their criminal behaviors.

Another interesting finding that emerged from the present study suggested that cold-heartedness had a different mechanism as compared to power-oriented and injustice-oriented assumptions. In general, it was found that cold-heartedness was associated with internal locus of control, rather than external. In addition, it was observed to be unrelated or negatively associated with defensive strategies. In fact, by definition, cold-heartedness does not constitute for an assumption but it rather signals a personality characteristic or problem in emotions. However, in the previous research, cold-heartedness was generally found to contribute positively to the overall criminal thinking score (Taxman et al., 2011), whereas it was observed to be unrelated with other components of criminal thinking in the present study. Despite the contradictory results, this study offers some insight into the emotional coping

strategies of offenders. As previously noted, encountering with the negative consequences of offending and imprisonment experience leaves offenders in a great emotional burden. Hence, they engage in external attributions (via defensive strategies) in order to relieve this emotional stress. However, when they engage in internal locus of control (and take some responsibility about their behaviors), they might have difficulty in coping with their negative emotions. Therefore, they might be engaging in emotional avoidance which is represented herein as cold-heartedness. Overall, the present study contributes to the existing knowledge of cold-heartedness by providing alternative explanation that it might also be representing emotional avoidance rather than unemotionality as it is in psychopathy.

Another purpose of the current dissertation was to determine the associated variables with motivation to change. In general, the findings add substantially to our understanding of motivational stages in the prison context, by indicating how the emotions of hopelessness and helplessness might intervene with the change process. One of the most obvious findings to emerge from this study is that, belief in insignificance of struggle mediated the relationship between offence-supportive assumptions and precontemplation. Therefore, it seems that, a general feeling of hopelessness, diminished self-efficacy for change, and a belief in “nothing works” might explain why offenders resist changing and normalize their offending behaviors. It was also shown that cold-heartedness negatively contributed to contemplation and action stages, because of internal locus of control. Hence, it is noteworthy to underline once again that the emotional burden of the offenders should be attended in every motivational stage.

The present dissertation further depicted that an assessment of decisional balance regarding the offending behavior is critical for understanding how criminality is normalized and how the negative consequences are construed. Referring back to the heuristic formulation proposed at the beginning of the study, it is suggested that decisional balance measure might be utilized in conjunction with the self and environmental re-evaluation strategies. Therefore, it might be possible for the offender to associate his/her offence-supportive assumptions with how s/he construes criminality. Likewise, it might be possible to draw a road map for desistance taking into account the concerns reflected by the cons measure.

Regarding juvenile offenders it was observed that the psychological mechanisms are generally in common with that of adults. Yet, taking into account the developmental concerns of adolescents as well as the different context of juvenile criminality, the characteristics that are displayed by juveniles show variations. For instance, in addition to the general consensus that the cognitive structures as well as the identity are not yet developed, the present findings suggest that encountering more with the legal proceedings might change and/or shape the injustice-oriented assumptions during adolescence. Whilst this study did not confirm the factor structure of defensive strategies, it did partially substantiate that the juveniles utilize from defensive strategies in all motivational stages. An implication of this is the possibility that juveniles might be more in need of help in terms of construing their offending and imprisonment experiences.

4.2. Strengths and Limitations of the Present Study

To our knowledge, this is the first study aiming at differentiating the offence-supportive assumptions and defensive strategies. In doing so, the current findings add substantially to our understanding of psychological mechanisms of criminality, by suggesting a case formulation plan. It is believed that this research will serve as a base for future studies that take into account individual experiences of criminality. Besides, the empirical findings in this study provide a new understanding of defensive strategies, in terms of explaining the functions of these strategies. Accordingly, how the emotional burden associated with the imprisonment experience is clearly figured out and believed to be integrated in the future intervention studies. Another strength of the present study is to integrate the concept of decisional balance into the psychological models of criminality, which is thought to enhance our understanding of how the criminal behavior is construed by the offenders. In addition, associated factors with stages of change were investigated and a treatment plan is suggested accordingly (see Forensic Implications for details). Moreover, comparisons between age-groups were derived and specific concerns of developmental stages were suggested to be attended in treatment interventions. Finally, three assesment devices were introduced to Turkish literature, which will hopefully facilitate further research in the forensic field in Turkey.

However, a number of caveats need to be noted regarding the present study. First of all, the sample size is considerably small, especially for the juveniles. Further work needs to be done to establish the specific factors associated with cognitive mechanisms of offending and motivation to change among juvenile offenders. Likewise, the decisional balance scale should be revised and items specific to the offending behavior and culture should be generated. Besides, the current research was not designed to address to the specific crime types that might be of interest in future studies. It is methodologically difficult to attend on specific crime types since the majority of the offenders have a diverse criminal history. The present research aimed to depict a formulation that covers offending behavior in general. Yet, it is acknowledged in the literature that there are offenders who have a recurring criminality pattern that professionalize in a specific type of crime (e.g., sex offenders). Therefore, a future study that aims at deriving formulations specific to the crime types might be interesting. Another issue that was not addressed in the current study was the time the participants spent in prison and how long they will stay. While discussing the findings, it is frequently emphasized that the imprisonment experience has a considerable effect on how the criminality is construed after encountering with the negative consequences. Hence, it is highly probable that these constructions will vary according to the time spent in prison and according to the time remaining for release. More important limitation lies in the fact that some of the participants (especially the majority of juveniles) were in the “detainee” status in the time of data collection, which means that their guilty status has not been proved yet. Taking into account that the custody awaiting trial might last for a considerably long amount of time (for some cases this might last for years), it is highly possible that these participants develop offence-supportive assumptions and defensive strategies as a reaction to their negative experiences of legal proceedings. The custody awaiting trial period should especially be taken into account for juveniles, since most of the juvenile offender cases in Turkey do not finalize with a prison sentence. Hence, the issue of detention experience should be carefully attended during the interventions conducted with juveniles.

There are other limitations regarding the assessment devices. First of all it should be kept in mind that the Criminal Thinking Scale that was developed by

Knight and colleagues (2002) did not aim to address offence-supportive assumptions and defensive strategies separately. The scale was utilized as it is frequently cited in the literature and there hasn't been any attempt to separate these two constructs. Therefore, the present findings should be regarded as a base for further empirical research that aim to develop instruments that specifically assess assumptions and defensive strategies. Moreover, the Criminal Thinking Scale does not address to the "security assumption" that is suggested to be evident both in the previous literature and in the current findings that indicated the "protection" motivation of the offenders. Hence, an investigation of possible schemas (and related assumptions) associated with criminality is strongly recommended. Finally, the current research was unable to analyse pros and cons of desisting, pros and cons of specific crime types, and self-efficacy for desisting. Further research regarding the role of these factors would be of great help in understanding the psychological mechanisms associated with desisting.

4.3. Clinical Implications

Although the present study was conducted with prisoners, the findings provide substantial knowledge about antisocial, conduct, and/or risky behaviors in general. Taken together, the clinicians might find it useful to evaluate the proposed formulation, the assessment of assumptions and defensive strategies, and the decisional balance in order to work on the risky behavior and understand how it is construed as meaningful in the client's life. It is further recommended that the prevention studies should attend to the factors proposed in the current study. Accordingly, the offence-supportive assumptions should be handled in advance, possible threats and triggering events should be identified and individual actions plans in order to react adaptively to those threats should be formulized. In addition, prevention studies should focus on how the offending behavior is favored and interventions should apply in order to inhibit this process.

There are several clinical implications of the present findings that could be applied in forensic settings. These findings are provided in detail in the next section, within a treatment plan framework that takes into account the motivational stages.

4.4. Forensic Implications

In general, the results of the present research support the idea that it would be more beneficial for the offenders to gain awareness about the links between their life concerns and their criminal behavior. Likewise, they would utilize more from the skills training and anger-management programs applied in the prison context if they find these interventions meaningful for their desistance process. In this respect, it is suggested in the present findings that the factors associated with the offending and desistance process of each individual might be different, although the underlying mechanisms are the same. Therefore, individual case formulations and intervention plans should be applied, taking into account the needs and resources of the individual and the concerns related to the social institutions (e.g., work, family) s/he is planning to engage in after release. The current research further provided evidence as to how the emotions (e.g., hopelessness, helplessness, shame, remorse, and/or emotional avoidance) might pose an obstacle in the desistance process. Hence, the practitioners should carefully attend these emotions, help the offender to effectively cope with them, and build a trusting relationship that helps offenders not to engage in defensive strategies.

In addition to the general implications, a treatment plan is suggested taking into account the participants' concerns in different motivational stages.

Precontemplation Stage:

As outlined in detail by Prochaska and Norcross (2003) clients in the precontemplation stage generally utilize from strategies aiming at consciousness raising, environmental re-evaluation, dramatic relief, and social liberation. In parallel with these suggestions, psychological interventions provided in prison settings commonly aim at raising the awareness of the offender about his/her criminal behavior. However, as Maruna (2012) noted, offenders tend to generate reactions when they feel they are only evaluated in terms of their past and present risky behaviors. In addition, the present study provided evidence regarding that offenders have a difficulty in coping with their negative emotions that resulted from experiencing negative consequences of criminal behavior. This difficulty in coping might even result in emotional avoidance when they attempt to own the responsibility of their behaviors. Hence, it is recommended that before engaging in

consciousness raising strategies, dramatic relief should be given priority and the emotional struggles of the offender should be attended carefully within a trusting therapeutic relationship. Strategies aiming at increasing positive affect might be helpful during this stage of treatment, as it will inevitably foster building hope and will make it easier to access personal resources to be utilized during the change process.

The case formulation plan provided at the beginning of the study could be utilized during consciousness raising, environmental re-evaluation, and social-liberation strategies. It should be noted that, during the precontemplation stage, the offence-supportive assumptions might be actively operating for the offender, which provides an obstacle for coping with the negative consequences effectively. Sharing the formulation with the offender might help him/her to understand the links between his/her concerns in life and how they affect his/her construction of the criminality. Feelings of hopelessness, helplessness and belief in insignificance of struggle should be attended during this process. It is highly probable that the offenders might have tried to make some changes in their lives before the treatment intervention (Maruna, 2012), and they might have come to believe that “nothing worked in the past and will work in the future”. Therefore, any attempts that the offender made for change and his/her self-efficacy for desistance should be considered. Integrating the offender’s future plans (plans after release) might be of help for increasing hope and helping the offender to make the desistance process meaningful. However, the labeling issues as well as the offender’s internalizing schema (Lebel et al., 2008) should be carefully attended. Finally, the possible losses that the offender experienced during the imprisonment process should be handled.

Contemplation Stage:

The findings in the present study indicated that the contemplation stage is when the offenders are expected to experience less pros of offending. Besides, it is noted in the literature that pros of desisting is expected to increase in this stage (Prochaska and Norcross, 2003). Therefore, the self re-evaluation strategies might aim at fostering this process, by helping the offender to find prosocial means of achieving their goals, to explore the personal resources, and to find more meaning in desistance. During contemplation positive affect increases, possibly because the

person begins to consider engaging in the change process. It is further indicated in the current findings that the participants in the contemplation stage utilized all sources of coping. Taken together, it is recommended that the interventions should aim at strengthening the coping mechanisms. Offenders might also benefit from social support that encourages the change process. Hence, alliance of the family members could be integrated and/or contemplators might be encouraged to form supportive groups.

Action Stage:

The evidence from this study suggests that offenders in the action stage report more internal locus of control and cons of offending; a condition which is favored in the treatment interventions. However, it should be kept in mind that it is difficult for the offenders to observe the changes that they have made in the prison context (McMurran et al., 1998). Thus, it is highly probable for the offenders in the action stage to experience feelings of hopelessness, which should be attended. It is recommended that discussing about certain obstacles with the offender and making short term plans about observable behaviours in the prison context might be helpful. As the cons of offending increase during this stage, the offender is expected to gain more insight about the negative consequences of criminality. This process might be facilitated by making discussions about the plans after release and drawing links between cons of offending and these plans. However, increase in the cons of offending signals that the offender will become more aware about the negative consequences of criminality. Hence, s/he might engage in defensive strategies again, in order to cope with the negative emotions. The current findings suggest that self-victimization strategies provide an important obstacle during this process. Besides, externalizing and trivializing strategies might be obstructive as well, if the offender has offence-supportive assumptions.

Maintenance:

The present study indicates that maintenance stage in the prison context is basically characterized by a set-back to the feelings of hopelessness. It might be helpful for the offender to be informed about the spiral nature of the change process (that the set-backs are inevitable). However, within the prison context, feelings of hopelessness might refer to more grift assumptions rather than a relapse to the

previous stages per se. Specifically, the offender might have gone through an identity development during the change process (Paternoster & Bushway, 2009), which might possess assumptions that are frequently challenged in the prison context. Hence, the strategies should be aimed at addressing the discrepancy between offender's internal experiences and his/her adaptation to prison context with his/her new identity. Ex-offenders' need for generativity that is mentioned by Maruna (2001) might be applicable to the offenders in the maintenance stage as well. If so, facilitating these offenders to practice their generativity through collaborating with the practitioners in the recidivism prevention programs might be highly therapeutic.

4.5. Policy Suggestions

The findings of this study have a number of important implications for future policies. Initially, it is frequently emphasized in the current work that the prison context provides several obstacles for the desisting offender. As previously stated by Sampson and Laub (1993), one of these obstacles is the lack of opportunities in prison to form adult social bonds. In addition, there are several other factors in the prison context that might be reinforcing the offence-supportive assumptions, such as long detention periods, unjust legal proceedings and practices, and normalization of violence in the prison. However, unless governments adopt policies that favor a socially just system in which the citizens feel secure, it is difficult to expect the prison services to attain these goals on their own. Moreover, there are a number of important changes which need to be made regarding our understanding of the relationship between crime and punishment. The results of this research support the idea that increasing the punishments might be criminogenic, rather than preventive of re-offending. Cons of offending is commonly acknowledged by the offenders, yet what matters is the attributions they have made for pros of offending. Similarly, pros of desisting is suggested to motivate the offenders more than the cons of offending. Therefore, psychosocial interventions tackling these issues should be supported.

Regarding juvenile and young adult offenders, the present study indicated that gaining and exercising power is an important motivation for offending in these age groups. Besides, child labor is observed to be a highly common experience for the young participants. These findings are in parallel with the suggestions made in the critical criminology literature which underlines the powerless status of young people

in the communities. Accordingly, children and young people are vulnerable as they face with relatively fewer opportunities, economic inequality, less support from the governments and social institutions, and less control on their decisions (Currie, 2009; Olsson, 2012). It is noteworthy to quote from Currie (2009) herein in order to emphasize the importance of giving priority to the policies that favor a child-friendly society:

Societies that make a strong commitment to providing social supports and expend a larger portion of their wealth on social services, especially for children and families, are less likely to suffer high rates of violent crime than those that choose other directions or strategies for stable conditions in the society (p. 80).

4.6. Directions for Future Research

It is recommended that further research be undertaken in the following areas: development of alternative assessment devices, empirical support for the heuristic case formulation, establishment of the present findings, and expanding the work with different samples.

Regarding the first area, instruments should be developed that specifically aim to assess offence-supportive assumptions, defensive strategies, and decisional balance for offending and desisting. The present study displayed the importance of these concepts with existing devices. What is now needed is a qualitative work that elaborates on offenders' responses about normalization and rationalization of criminality. Besides, more work will need to be done to determine how the offence-supportive assumptions and defensive strategies differentiate from each other and how people deal with their offence-supportive schemas in the daily life.

Considering the heuristic case formulation, it is difficult to imagine a longitudinal design that covers each element. However, retrospective studies will enhance our understanding of cognitive mechanisms associated with criminality.

In terms of establishment of the present findings, further research might explore how emotional avoidance is different than callousness-unemotionality trait of psychopathy and what kind of treatment strategies should be employed. Besides, the present study provided partial support for the self-affirming function of defensive strategies, which should be further determined. In addition, taking into account the

suggestions made by the literature on hyperbolic discounting, it would be interesting to assess the effects of short and long term pros and cons of offending.

Regarding the juvenile sample, future research should concentrate on the investigation of specific concerns of adolescents. It is also recommended that, in order to provide a case formulation for juveniles, “needs” (such as need for recognition, excitement, security, and autonomy) should be taken into account rather than “assumptions”.

Finally, the findings in the present study are generalizable only for male offenders. Research is crucially needed to determine concerns specific to female offenders, how they construe criminality, and how they deal with the negative consequences of offending.

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APPENDICES

APPENDIX A: Informed Consent

Gönüllü Katılım Formu

Sayın Katılımcı;

Bu çalışma, Orta Doğu Teknik Üniversitesi'nde, Uzm. Psk. Öznur Öncül tarafından Prof.Dr.Tülin Gençöz danışmanlığında yürütülen doktora tezi kapsamında hazırlanmıştır. Bu çalışmanın amacı ceza infaz kurumlarında yürütülmekte olan kısa grup programlarının etkinliğini araştırmak olup, size programlara ilişkin tutumlarınızın yanı sıra başatma becerileriniz, kişilik özellikleriniz ve duyu durumunuza yönelik sorular yöneltilenmektedir. Bu soruların doğru ya da yanlış cevapları yoktur. Lütfen her sayfanın başında yazan yönergeleri dikkatlice okuyarak, size en doğru gelen yanıtı vermeye çalışınız ve mümkün olduğunca boş soru bırakmayınız. Vereceğiniz yanıtlar tamamen gizli tutulacak ve sadece bu araştırma kapsamında değerlendirilecektir. Yanıtlarınız kişi bazında değil, tüm katılımcılar çerçevesinde değerlendirileceğinden sizden herhangi bir kimlik bilgisi istenmemektedir. Bu çalışmadan elde edilecek bilgiler bilimsel yayınlarda kullanılacaktır. Çalışmaya katılım tamamiyle gönüllülük temelinde olmalıdır.

Anket, genel olarak kişisel rahatsızlık verecek soruları içermemektedir. Ancak, katılım sırasında sorulardan ya da herhangi başka bir nedenden ötürü kendinizi rahatsız hissederseniz cevaplama işini yarıda bırakmakta serbestsiniz. Böyle bir durumda anketi uygulayan kişiye, anketi tamamlamadığınızı söylemek yeterli olacaktır. Çalışma hakkında daha fazla bilgi almak için Psikoloji Bölümü araştırma görevlisi Öznur Öncül (Oda: B34; Tel: 210 5944; E-posta: oznuroncul@yahoo.com) ile iletişim kurabilirsiniz.

Çalışmaya katıldığınız için şimdiden teşekkür ederiz.

Bu çalışmaya tamamen gönüllü olarak katılıyorum ve istediğim zaman yarıda kesip çıkabileceğimi biliyorum. Verdiğim bilgilerin bilimsel amaçlı yayımlarda kullanılmasını kabul ediyorum. (Formu doldurup imzaladıktan sonra uygulayıcıya geri veriniz).

İsim Soyad

Tarih

İmza

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APPENDIX B

DEMOGRAPHIC INFORMATION FORM

YÖNERGE: Lütfen her soruyu dikkatlice okuyup size en uygun olan seçeneği işaretleyiniz.

1. **Yaşınız:**

2. **Öğrenim Düzeyiniz :**

Okur-yazar değil :

Okur-yazar :

İlkokul Mezunu :

İlkokul Terk : (sınıf belirtiniz)

Ortaokul Mezunu :

Ortaokul Terk : (sınıf belirtiniz)

Lise Mezunu :

Lise Terk : (sınıf belirtiniz)

Yükseköğrenim : (belirtiniz)

3. **Medeni Haliniz:**

Evli Bekar

4. **Şu andaki durumunuz:** Hükümlü Tutuklu Hükmen tutuklu

5. **Ceza infaz kurumuna gelmeden önce kimlerle birlikte yaşıyordunuz?**

Eşiniz ve varsa çocuklarınızla birlikte	
Anne-baba, varsa kardeşlerinizle birlikte	
Eşinizden ayrı, çocuklarınızla birlikte	
Karşı cinsten biri ile	
Yakın akraba (belirtiniz)	
.....	
Arkadaşlarınız ile	
Yalnız	
Diğer (belirtiniz)	
.....	

6. **Bugüne kadar herhangi bir işte çalıştınız mı?**

Evet		Hayır	
------	--	-------	--

7. **6. Soruya yanıtınız “EVET” ise kaç yaşında çalışmaya başladınız?**

8. **Askerliđinizi yaptınız mı?**

Askerlik ađına gelmedim	
Süresinde, herhangi bir sorun yaşamadan	
Hastalık nedeni ile kabul edilmedim	
Tecilli	
Uyumsuzluk nedeni ile uzamış	
Diđer (lütfen belirtiniz)	

9. **Sizle beraber toplam kaç kardeşiniz?**

10. **Siz ailenizin kaçınıcı çocuđusunuz?**

11. **Anne-babanızın beraberlik durumu :**

Birlikte yaşıyorlar		Anne ölü	
Boşanmamış ancak ayrı		Baba ölü	
Boşanmış		Bilmiyorum	

12. **Herhangi önemli bir rahatsızlık geçirdiniz mi?**

Evet		Hayır	
------	--	-------	--

Tıbbi (belirtiniz).....

Psikolojik(belirtiniz).....

13. **Şu anda herhangi bir tıbbi ya da psikolojik sorunuz var mı? Evet**

Hayır

Tıbbi (belirtiniz).....

Psikolojik(belirtiniz).....

14. **Ceza infaz kurumuna gelmeden önce alkol kullanır mıydınız?**

Evet	
Kullanıyordum, ancak bıraktım	
Hayır, hiç kullanmadım	

15. **Alkol kullanma sorunuz olduğunu düşündünüz mü?**

<input type="checkbox"/> Evet		<input type="checkbox"/> Hayır	
-------------------------------	--	--------------------------------	--

16. **Sigara ve alkol haricinde herhangi bir madde kullandınız mı? (Esrar, bali gibi)**

Evet		Hayır	
------	--	-------	--

17. **15 yaşınıza kadar herhangi bir nedenle ana-babadan ayrılık yaşadınız mı?**

Ayrılık yok, ana-babayla birlikte		Yetiştirme yurdunda	
Anne ile birlikte, baba ayrı ya da ölü		Başka bir ailenin yanında, evlat edinilerek	
Baba ile birlikte, anne ayrı ya da ölü		Diğer (belirtiniz)	
İkisinden de ayrı, akrabaların yanında			

18. **15 yaşına kadar yaşadığınız ailede / yetiştiğiniz ortamda şiddet gördüğünüzü düşünüyor musunuz?**

Evet Hayır

19. **Hayatınızın herhangi bir döneminde sokakta yaşamak zorunda kaldınız mı?**

Evet Hayır

20. **Hiç intihar girişiminde bulundunuz mu?**

Evet Hayır

21. **Hiç kendinize zarar verme girişiminiz oldu mu?**

Evet Hayır

22. **Şu andaki durumunuz:**

Hükümlü	
Tutuklu	
Hükmen Tutuklu	

23. **Şu anda hangi suçtan ötürü ceza infaz kurumundasınız?**

24. **Daha önce herhangi bir suçtan ötürü ceza aldınız mı?**

Evet Hayır

25. **İlk kez suç işlediğinizde kaç yaşındaydınız?**

26. **Bugüne kadar başkasının malına zarar veren bir suç işlediniz mi?**

Evet Hayır

27. **Bugüne kadar yaralama/ölüm ile sonuçlanan bir suç işlediniz mi?**

Evet Hayır

28. **Bugüne kadar cinsel içerikli bir suç işlediniz mi?**

Evet Hayır

29. **Ailenizde suç işlemiş biri var mı?**
Hayır Anne Baba Kardeş Eş Çocuk

30. **Ceza infaz kurumunda, psikososyal servisten hizmet alır mısınız?**
(Psikolog/Sosyal çalışmacı ile görüşme)

Evet	<input type="checkbox"/>	Hayır	<input type="checkbox"/>
------	--------------------------	-------	--------------------------

31. **Bugüne kadar, ceza infaz kurumlarında psikososyal servis tarafından yürütülen herhangi bir programa katıldınız mı?**

Evet	<input type="checkbox"/>	Hayır	<input type="checkbox"/>
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30. Soruya yanıtınız “EVET” ise, lütfen hangi programa/programlara katıldığınızı, senesiyle birlikte belirtiniz.

APPENDIX C
CRIMINAL THINKING SCALE

Yönerge: Her cümleyi dikkatle okuyup belirtilen ifadeye ne derece katıldığınızı belirtiniz. Ne derece katıldığınızı belirtmek için 1'den 5'e kadar derecelendirilmiş ölçekte uygun sayıyı seçip işaretleyiniz. Lütfen her bir soru için tek bir seçenek belirtiniz.

		Hiç katılmıyorum	Katılmıyorum	Ne katılıyorum ne katılmıyorum	Katılıyorum	Tamamen katılıyorum
1	Doğal bir afette her şeyini kaybetmiş birisini duyduğumda duygusal olarak etkilenirim.	1	2	3	4	5
2	Özel olarak dikkate alınması gereken bir kişi olduğumu düşünüyorum.	1	2	3	4	5
3	Cezaevinde olmamın en büyük nedeni karşılaştığım talihsizliklerdir.	1	2	3	4	5
4	Nereli olduğum, cezaevine girmeme yol açmıştır.	1	2	3	4	5
5	İnsanlar bana ne yapmam gerektiğini söylediğinde saldırganlaşıyorum	1	2	3	4	5
6	Doğru bağlantılarınız varsa, mahkemede her şey halledilebilir.	1	2	3	4	5
7	Birini ağlarken görmek beni duygusal olarak etkiler	1	2	3	4	5
8	Sorumsuz davranışlarımı açıklamak için şu gibi ifadeler kullanırım: "Herkes bunu yapıyor, neden ben yapmayacakmışım?"	1	2	3	4	5
9	Bankacılar, avukatlar ve politikacılar, yasaları her gün ihlal ederek zorluklardan kurtuluyorlar.	1	2	3	4	5
10	İstedikimi elde etmeye hakkım var, çünkü bu hayatta ödemem gereken bedelleri ödedim.	1	2	3	4	5
11	Kontrolüm dışındaki durumlarda, diğerlerinin üzerinde güç kullanma ihtiyacı duyarım.	1	2	3	4	5
12	Neden suç işlediğim sorgulandığında bunu hayatımın ne kadar zor olduğunu anlatarak açıklarım.	1	2	3	4	5
13	Bazen yaşadığım şeyler beni öylesine etkiler ki tarif edemeyeceğim duygular hissederim.	1	2	3	4	5
14	Önemsiz konularda bile başkalarıyla sonuna kadar tartışırım.	1	2	3	4	5

15	Birisi bana saygısızlık yaparsa, onu doğru yola getirmek için gerekirse dövüşürüm.	1	2	3	4	5
16	Her zaman duruma hakim olmak isterim.	1	2	3	4	5
17	Kurbanların neden olduğu (tetiklediği) suçlar da vardır	1	2	3	4	5
18	İnsanların benim hayatımda önemli bir yeri olduğunu hissederim.	1	2	3	4	5
19	Bu ülkenin hukuk sistemi herkese eşit davranmak üzere düzenlenmiştir.	1	2	3	4	5
20	Suç işleyenleri yakalayanlar, “suçlulardan” daha kötü şeyler yapıyorlar.	1	2	3	4	5
21	Benimle uğraşan kişilere karşılığını vermem gerektiğini düşünürüm.	1	2	3	4	5
22	Burada yaptığım hiçbir şey bana yapılan muamelede bir değişiklik yapmayacak.	1	2	3	4	5
23	Yasalar beni bağlamaz (engellemez).	1	2	3	4	5
24	İhtiyaçlarımı karşılamak için suç işleyebilirim.	1	2	3	4	5
25	Bana, toplumun daha iyi bir hayat sağlaması gerekir.	1	2	3	4	5
26	Birine fiziksel bir zarar verilmediği sürece suçun abartılacak bir tarafı yoktur.	1	2	3	4	5
27	Hayatımdaki sorunlar için toplumu veya benim dışımdaki şartları suçladığım anlar olur.	1	2	3	4	5
28	Bir arkadaşımın kişisel problemleri olduğunda onun için endişelenirim.	1	2	3	4	5
29	Kendimi korumamın tek yolu, kavga etmeye hazırlıklı olmaktır.	1	2	3	4	5
30	Ben, yaptığım her şey için suçlanmamalıyım	1	2	3	4	5
31	Banka sahipleri, avukatlar, politikacılar işledikleri suçların sonuçlarından kurtulurken, benim suçlarımdan dolayı tutuklanmam adil değil.	1	2	3	4	5
32	Yoksul olduğum için yasalar bana karşıdır.	1	2	3	4	5
33	İyi davranışlarım olduğuna göre sorumsuz davranma hakkım da var.	1	2	3	4	5
34	Hak ettiğim gibi bir hayat yaşayabilmek için gerekirse suç da işlerim.	1	2	3	4	5
35	Mahkemeye gelen yalancı şahitler adaleti önlüyor.	1	2	3	4	5
36	İşlediğim suçları kendime açıklamak için “eğer ben yapmasaydım bir başkası yapacaktı” derim.	1	2	3	4	5
37	Ben suçlu olabilirim ama benim suçlu olmamda çevremizin etkisi büyüktür.	1	2	3	4	5

APPENDIX D

STAGES OF CHANGE SCALES FOR CRIMINALS

YÖNERGE: Aşağıda, suç davranışına eşlik edebilecek problemler ve ceza infaz kurumunda sağlanmakta olan psikososyal yardım servisi hizmetleriyle ilgili bazı ifadeler yer almaktadır. Lütfen, her cümleyi dikkatle okuyup, belirtilen ifadeye ne derece katılacağınızı belirtiniz. Ne derece katıldığınızı belirtmek için 1’den 5’e kadar derecelendirilmiş ölçekte uygun sayıyı seçip işaretleyiniz. Lütfen her bir soru için tek bir seçenek belirtiniz.

Bu ölçekte yer alan sorularda **problem** ile “**cezaevine girmenize neden olan olay ile ilişkili yaşantılar**” kastedilmektedir.

	Hiç katılmıyorum	Katılmıyorum	Ne katılıyorum ne katılmıyorum	Katılıyorum	Tamamen katılıyorum
1. Bence, kendimde değiştirmem gereken bir problem yok	1	2	3	4	5
2. Kendimi geliştirmem gerektiğini ve buna hazır olduğumu düşünüyorum.	1	2	3	4	5
3. Beni rahatsız eden problemlerimi çözmek için birşeyler yapıyorum	1	2	3	4	5
4. Probleminin üstesinden gelmek için çaba sarf etmem gerektiğini ve buna hazır olduğumu düşünüyorum	1	2	3	4	5
5. Problemlili olan ben değilim. Psikososyal servisten yardım almam gerektiğini düşünmüyorum.	1	2	3	4	5
6. Aslında çözmüş olduğum problemime tekrar geri dönebilecek olmak beni endişelendiriyor, bu yüzden buradan (psikososyal servisten) yardım almayı ümit ediyorum.	1	2	3	4	5
7. Nihayet problemlerimi çözmek için birşeyler yapıyorum	1	2	3	4	5
8. Bir süredir, kendimle ilgili bir şeyleri değiştirmem gerektiğini ve buna hazır olduğumu düşünüyorum	1	2	3	4	5
9. Problemi çözmeye başarılı oldum, ancak bu çabayı tek başıma (yardım almadan) sürdürebileceğimden emin değilim	1	2	3	4	5
10. Probleminin benim için zor olduğu zamanlar oldu, ama onları çözmek için uğraşıyorum	1	2	3	4	5

11. Psikososyal servisten yardım almak benim için tamamıyla vakit kaybı, çünkü problem benden kaynaklanmıyor	1	2	3	4	5
12. Kendimi daha iyi anlamak istiyorum ve psikososyal servisin bu konuda bana yardımcı olmasını bekliyorum.	1	2	3	4	5
13. Her ne kadar bazı hataları olsa da, gerçekten değiştirmem gereken bir yönüm olduğunu düşünmüyorum.	1	2	3	4	5
14. Problemimi çözmek için bugünlerde gerçekten çok çabalıyorum.	1	2	3	4	5
15. Bir problemim var ve bunun üzerine uğraşmamın gerçekten gerekli olduğunu ve bunun için hazır olduğumu düşünüyorum	1	2	3	4	5
16. Problemlerimi çözmek için öğrendiğim yöntemleri umduğum kadar başarılı sürdürüremiyorum ve tekrar aynı şeyleri yaşamamak için psikososyal servisten yardım almak istiyorum.	1	2	3	4	5
17. Problemimi çözmek için henüz başarı sağlayamamam da, en azından şu an bunun için çaba sarf ediyorum.	1	2	3	4	5
18. Problemime bir çözüm getirmiş olmama rağmen, zaman zaman hala aynı sıkıntıları yaşıyorum.	1	2	3	4	5
19. Problemlerimin nasıl üstesinden geleceğimle ilgili etkili çözüm yollarına ihtiyacım var.	1	2	3	4	5
20. Problemlerimi çözmek için şu anda çaba sarf ediyorum, ancak yardıma ihtiyacım var.	1	2	3	4	5
21. Problemlerimin üstesinden gelebilmem için psikososyal servis çalışmalarına katılmamın bana yardımcı olmasını bekliyorum.	1	2	3	4	5
22. Gerçekleştirdiğim değişimlerin kalıcı olabilmesi için şu anda desteğe ihtiyacım olabilir	1	2	3	4	5
23. Problemin bir parçası olabilirim, ama problemin kendisi olduğumu düşünmüyorum	1	2	3	4	5
24. Psikososyal servisten, problemlerimin üstesinden gelebilmek için güzel tavsiyeler almayı bekliyorum.	1	2	3	4	5
25. Herkes değişmekten bahsedebilir; ben değişmek için şu anda gerçekten çaba sarf ediyorum.	1	2	3	4	5

26. Psikoloji hakkında yapılan bütün konuşmalar çok sıkıcı. Neden insanlar problemlerini unutamıyorlar ki?	1	2	3	4	5
27. Tekrar aynı problemi yaşamaktan kendimi alı koymak için psikososyal servisten yardım almak istiyorum.	1	2	3	4	5
28. Çözdüğümü düşündüğüm bir problemime geri dönme ihtimali canımı sıkıyor.	1	2	3	4	5
29. Benim endişelerim var ama başka kişilerin de var. Neden bu endişelerimi düşünerek vakit harcıyorum?	1	2	3	4	5
30. Problemimi çözmek için aktif olarak uğraşıyorum	1	2	3	4	5
31. Kendimi değiştirmeye çalışmak yerine, karşılaştığım olayların sonuçlarına katlanırım.	1	2	3	4	5
32. Problemimi çözmek için yapmış olduğum şeye rağmen, bu problem yine de yakamı bırakmıyor.	1	2	3	4	5

APPENDIX E

DECISIONAL BALANCE SCALE FOR CRIMINALS

YÖNERGE: Aşağıda suç davranışının bazı olumlu ve olumsuz yönleri sıralanmıştır. Her cümleyi dikkatle okuyup belirtilen cümleye ne derece katıldığınızı belirtiniz. Ne derece katıldığınızı belirtmek için 1'den 5'e kadar derecelendirilmiş ölçekte uygun sayıyı seçip işaretleyiniz. Eğer verilen ifade sizin görüşlerinize tamamen uygunsa 5 numarayı, hiç uygun değilse 1 numarayı işaretleyiniz. Katılma derecenizi 1 ile 5 arasında seçeceğiniz bir sayı ile belirtiniz.

		Hiç katılmıyorum	Katılmıyorum	Ne katılıyorum ne katılmıyorum	Katılıyorum	Tamamen katılıyorum
1	Suça karışmaktan keyif alırım	1	2	3	4	5
2	Bir süre suç işlemedikten sonra suç işlemek kendimi çok iyi hissettiriyor.	1	2	3	4	5
3	Bazen suç işlemek tehlikelidir ve risklidir	1	2	3	4	5
4	Suç işlemekten vazgeçemeyeceğimi düşünüyorum	1	2	3	4	5
5	Suç işlediğim zaman kendimi daha rahat ve daha güçlü hissediyorum.	1	2	3	4	5
6	Suç işlemeyen bir insan olursam, diğer suçlular buna imrenecektir.	1	2	3	4	5
7	Suç işlemiş kişi imajından hoşlanıyorum	1	2	3	4	5
8	Suç işlemem yakınimdaki insanları da etkiler	1	2	3	4	5
9	Suç işlemeseydim şimdi hayatım daha güzel olurdu	1	2	3	4	5
10	Suç işlediğim zaman, suç işleyen kişiler tarafından daha fazla kabul gördüğümü hissediyorum	1	2	3	4	5
11	Suç işlemeyi bırakmaya çalışırsam büyük olasılıkla zayıf ve çevresi tarafından güçsüz görülen biri olurum.	1	2	3	4	5
12	Suç işlediğim için başıma bir şey gelirse yakınlarım acı çekecektir	1	2	3	4	5
13	Bana yakın kişiler, suç işleyerek güçlü olmamı, itibar görmemi ya da kendimi korumamı, suç işlemeyerek güçsüz olmama, itibar görmememe ya da kendimi koruyamamama tercih eder.	1	2	3	4	5
14	Suç işlemeye devam edersem bazı insanlar suç işlemeyi bırakacak iradem olmadığını düşüneceklerdir.	1	2	3	4	5
15	Suç işlemek benim için zararlıdır.	1	2	3	4	5

16	Kendimi suç işlemekten alıkoyamadığım için kendimden utanıyorum	1	2	3	4	5
17	Suç işlemem çevremdeki insanları rahatsız eder	1	2	3	4	5
18	Suç işlemeye ilgili uyarıları göz ardı ettiğim için insanlar benim akılsız olduğumu düşünüyorlar	1	2	3	4	5
19	Suç işlediğim zaman kendimi daha çok seviyorum	1	2	3	4	5
20	Suç işlemek para kazanmama, saygı görmeme, güçlü hissetmeme, kendimi korumama ve/veya kabul görmeme yardım ediyor	1	2	3	4	5
21	Suç işlemek sorunlarımı çözmemde yardımcı olur	1	2	3	4	5
22	Yakınlarım suç işlememi onaylamıyorlar	1	2	3	4	5
23	Suç işlemeye ilgili uyarıları dikkate almadığım için kendimi aptal gibi hissediyorum	1	2	3	4	5
24	Suç işlemeye devam ederek kendi kararlarımı kendimin verdiğini hissediyorum	1	2	3	4	5

APPENDIX F

POSITIVE & NEGATIVE ATTRIBUTIONS RELATED TO OFFENDING: ADDITIONAL ITEMS

Suç işleminin sizin için avantajlarını belirtiniz (birden fazla işaretleyebilirsiniz)

	İtibar görme
	Kabul görme
	Güçlü hissetme
	Kendini koruma
	Maddi kazanç
	Diğer (belirtiniz):

Suç işleminin sizin için dezavantajlarını belirtiniz (birden fazla işaretleyebilirsiniz)

	Ceza alma
	Hor görülme
	Damgalanma (örn. “iş vermezler”, “kız vermezler”)
	Çevreden tepki görme
	Saygınlığını kaybetme
	Diğer (belirtiniz):

APPENDIX G

ROSENBERG SELF-ESTEEM SCALE

Lütfen aşağıdaki maddeleri dikkatle okuyun ve her maddenin altındaki 4 cevap şikkından, size en uygun olanını daire içine alarak işaretleyin.

1. Kendimi en az diğer insanlar kadar değerli buluyorum.
a. Çok doğru b. Doğru c. Yanlış d. Çok yanlış
2. Bazı olumlu özelliklerim olduğunu düşünüyorum.
a. Çok doğru b. Doğru c. Yanlış d. Çok yanlış
3. Genelde, kendimi başarısız biri olarak görme eğilimindeyim.
a. Çok doğru b. Doğru c. Yanlış d. Çok yanlış
4. Ben de diğer insanların bir çoğunun yapabildiği kadar, birşeyler yapabilirim.
a. Çok doğru b. Doğru c. Yanlış d. Çok yanlış
5. Kendimde gurur duyacak fazla birşey bulamıyorum.
a. Çok doğru b. Doğru c. Yanlış d. Çok yanlış
6. Kendime karşı olumlu bir tutum içindeyim .
a. Çok doğru b. Doğru c. Yanlış d. Çok yanlış
7. Genel olarak kendimden memnunum.
a. Çok doğru b. Doğru c. Yanlış d. Çok yanlış
8. Kendime karşı daha fazla saygı duyabilmeyi isterdim.
a. Çok doğru b. Doğru c. Yanlış d. Çok yanlış
9. Bazen kesinlikle bir işe yaramadığımı düşünüyorum.
a. Çok doğru b. Doğru c. Yanlış d. Çok yanlış
10. Bazen hiç de yeterli bir insan olmadığımı düşünüyorum.
a. Çok doğru b. Doğru c. Yanlış d. Çok yanlış

APPENDIX H

LIFE EVENTS INVENTORY FOR PRISONERS

YÖNERGE: Aşağıda hükümlü ve tutukluların cezaevinde yaşadıkları problem alanları bulunmaktadır. Her maddeyi dikkatli bir şekilde okuyarak, son bir ay içerisinde ne kadar sıklıkla böyle bir olay ya da sorunla karşılaştığınızı ve bu sorunun sizin için ne kadar önemli olduğunu uygun rakamı işaretleyerek belirtiniz. Her maddeyi işaretlemeye ve hiçbir maddeyi atlamamaya özen gösterin.

		Son bir ayda ne kadar sıklıkla böyle bir sorun yaşadınız?				Bu sorun size göre ne kadar önemliydi?			
		Hiçbir zaman	Bazen	Çoğu zaman	Her zaman	Hiç Önemli Değil	Az Önemli	Önemli	Çok Önemli
1	Ailemden ve sevdiğim kişilerden ayrı olmak	0	1	2	3	0	1	2	3
2	Beslenme ile ilgili sorunlar	0	1	2	3	0	1	2	3
3	Ailemin yaşadığı problemler	0	1	2	3	0	1	2	3
4	Boş zaman aktiviteleri ve kültürel faaliyetler ile ilgili yetersizlikler	0	1	2	3	0	1	2	3
5	Bürokratik işlerin fazlalığı	0	1	2	3	0	1	2	3
6	Telefon görüşmeleri ile ilgili yetersizlikler	0	1	2	3	0	1	2	3
7	Temizlikle ilgili sıkıntılar	0	1	2	3	0	1	2	3
8	Ziyaretçilerle yapılan görüşmelerdeki kurallar ve sınırlamalar	0	1	2	3	0	1	2	3
9	Kantin ile ilgili problemler	0	1	2	3	0	1	2	3
10	Cezaevindeki diğer hükümlülerle/ tutuklularla olan ilişkilerin yetersizliği	0	1	2	3	0	1	2	3

11	Bulduğum cezaevinin yapılmasına neden olan devlet politikası	0	1	2	3	0	1	2	3
12	Haksız yere cezaevinde yatıyor olma düşüncesi	0	1	2	3	0	1	2	3
13	İdarenin (savcı, müdür, ikinci müdür, vb.) tutum ve davranışlarından kaynaklanan problemler	0	1	2	3	0	1	2	3
14	Ekonomik yetersizlikler/sıkıntılar	0	1	2	3	0	1	2	3

APPENDIX I
LOCUS OF CONTROL SCALE

Bu anket, insanların yaşama ilişkin bazı düşüncelerini belirlemeyi amaçlamaktadır. Sizden, bu maddelerde yansıtılan düşüncelere ne ölçüde katıldığınızı ifade etmeniz istenmektedir.

Bunun için, her maddeyi dikkatle okuyunuz ve o maddede ifade edilen düşüncenin *sizin* düşüncelerinize uygunluk derecesini belirtiniz. Bunun için de, her ifadenin karşısındaki seçeneklerden sizin görüşünüzü yansıtan kutucuğa bir (X) işareti koymanız yeterlidir. “Doğru” ya da “yanlış” cevap diye bir şey söz konusu değildir.

Tüm maddeleri eksiksiz olarak ve içtenlikle cevaplayacağınızı umuyor ve araştırmaya yardımcı olduğunuz için çok teşekkür ediyoruz.

	Hiç uygun değil	Pek uygun değil	Uygun	Oldukça uygun	Tamamen uygun
1. İnsanın yaşamındaki mutsuzlukların çoğu, biraz da şanssızlığına bağlıdır.					
2. İnsan ne yaparsa yapsın üşütüp hasta olmanın önüne geçemez.					
3. Bir şeyin olacağı varsa eninde sonunda mutlaka olur.					
4. İnsan ne kadar çabalarsa çabalasın, ne yazıkki değeri genellikle anlaşılmaz.					
5. İnsanlar savaşları önlemek için ne kadar çaba gösterirlerse gösterebilirler, savaşlar daima olacaktır.					

6. Bazı insanlar doğuştan şanslıdır.					
7. İnsan ilerlemek için güç sahibi kişilerin gönlünü hoş tutmak zorundadır.					
8. İnsan ne yaparsa yapsın, hiç bir şey istediği gibi sonuçlanmaz.					
9. Bir çok insan, raslantıların yaşamlarını ne derece etkilediğinin farkında değildir.					
10. Bir insanın halen ciddi bir hastalığa yakalanmamış olması sadece bir şans meselesidir.					
11. Dört yapraklı yonca bulmak insana şans getirir.					
12. İnsanın burcu hangi hastalıklara daha yatkın olacağını belirler.					
13. Bir sonucu elde etmede insanın neleri bildiği değil, kimleri tanıdığı önemlidir.					
14. İnsanın bir günü iyi başladıysa iyi; kötü başladıysa da kötü gider.					
15. Başarılı olmak çok çalışmaya bağlıdır; şansın bunda payı ya hiç yoktur ya da çok azdır.					

16. Aslında şans diye bir şey yoktur.					
17. Hastalıklar çoğunlukla insanların dikkatsizliklerinden kaynaklanır.					
18. Talihsizlik olarak nitelenen durumların çoğu, yetenek eksikliğinin, ihmalin, tembelliğin ve benzeri nedenlerin sonucudur.					
19. İnsan, yaşamında olabilecek şeyleri kendi kontrolü altında tutabilir.					
20. Çoğu durumda yazı-tura atarak da isabetli kararlar verilebilir.					
21. İnsanın ne yapacağı konusunda kararlı olması, kadere güvenmesinden daima iyidir.					
22. İnsan fazla bir çaba harcamasa da, karşılaştığı sorunlar kendiliğinden çözülür.					
23. Çok uzun vadeli planlar yapmak her zaman akıllıca olmayabilir, çünkü bir çok şey zaten iyi ya da kötü şansa bağlıdır.					

24. Bir çok hastalık insanı yakalar ve bunu önlemek mümkün değildir.					
25. İnsan ne yaparsa yapsın, olabilecek kötü şeylerin önüne geçemez.					
26. İnsanın istediğini elde etmesinin talihle bir ilgisi yoktur.					
27. İnsan kendisini ilgilendiren bir çok konuda kendi başına doğru kararlar alabilir.					
28. Bir insanın başına gelenler, temelde kendi yaptıklarının sonucudur.					
29. Halk, yeterli çabayı gösterse siyasal yolsuzlukları ortadan kaldırabilir.					
30. Şans ya da talih hayatta önemli bir rol oynamaz.					
31. Sağlıklı olup olmamayı belirleyen esas şey insanların kendi yaptıkları ve alışkanlıklarıdır.					
32. İnsan kendi yaşamına temelde kendisi yön verir.					
33. İnsanların talihsizlikleri yaptıkları hataların sonucudur.					

34. İnsanlarla yakın ilişkiler kurmak, tesadüflere değil, çaba göstermeye bağlıdır.					
35. İnsanın hastalanacağı varsa hastalanır; bunu önlemek mümkün değildir.					
36. İnsan bugün yaptıklarıyla gelecekte olabilecekleri değiştirebilir.					
37. Kazalar, doğrudan doğruya hataların sonucudur.					
38. Bu dünya güç sahibi bir kaç kişi tarafından yönetilmektedir ve sade vatandaşın bu konuda yapabileceği fazla bir şey yoktur.					
39. İnsanın dini inancının olması, hayatta karşılaştığı bir çok zorluğu daha kolay aşmasına yardım eder.					
40. Bir insan istediği kadar akıllı olsun, bir işe başladığında şansı yaver gitmezse başarılı olamaz.					
41. İnsan kendine iyi baktığı sürece hastalıklardan kaçınabilir.					
42. Kaderin insan yaşamı üzerinde çok büyük bir rolü vardır.					

43. Kararlılık bir insanın istediği sonuçları almasında en önemli etkidir.					
44. İnsanlara doğru şeyi yaptırmak bir yetenek işidir; şansın bunda payı ya hiç yoktur ya da çok azdır.					
45. İnsan kendi kilosunu, yiyeceklerini ayarlayarak kontrolü altında tutabilir.					
46. İnsanın yaşamının alacağı yönü, çevresindeki güç sahibi kişiler belirler.					
47. Büyük ideallere ancak çalışıp çabalayarak ulaşılabilir.					

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APPENDIX J

BASIC PERSONALITY TRAITS INVENTORY

YÖNERGE:

Aşağıda size uyan ya da uymayan pek çok kişilik özelliği bulunmaktadır. Bu özelliklerden her birinin sizin için ne kadar uygun olduğunu ilgili rakamı daire içine alarak belirtiniz.

	Hiç uygun değil	Uygun değil	Kararsızım	Uygun	Çok uygun		Hiç uygun değil	Uygun değil	Kararsızım	Uygun	Çok uygun
1 Aceleci	1	2	3	4	5	24 Pasif	1	2	3	4	5
2 Yapmacık	1	2	3	4	5	25 Disiplinli	1	2	3	4	5
3 Duyarlı	1	2	3	4	5	26 Açgözlü	1	2	3	4	5
4 Konuşkan	1	2	3	4	5	27 Sinirli	1	2	3	4	5
5 Kendine güvenen	1	2	3	4	5	28 Canayakın	1	2	3	4	5
6 Soğuk	1	2	3	4	5	29 Kızgın	1	2	3	4	5
7 Utangaç	1	2	3	4	5	30 Sabit fikirli	1	2	3	4	5
8 Paylaşımçı	1	2	3	4	5	31 Görgüsüz	1	2	3	4	5
9 Geniş / rahat	1	2	3	4	5	32 Durgun	1	2	3	4	5
10 Cesur	1	2	3	4	5	33 Kaygılı	1	2	3	4	5
11 Agresif(Saldırgan)	1	2	3	4	5	34 Terbiyesiz	1	2	3	4	5
12 Çalışkan	1	2	3	4	5	35 Sabırsız	1	2	3	4	5
13 İçten pazarlıklı	1	2	3	4	5	36 Yaratıcı (Üretken)	1	2	3	4	5
14 Girişken	1	2	3	4	5	37 Kaprisli	1	2	3	4	5
15 İyi niyetli	1	2	3	4	5	38 İçine kapanık	1	2	3	4	5
16 İçten	1	2	3	4	5	39 Çekingen	1	2	3	4	5
17 Kendinden emin	1	2	3	4	5	40 Alıngan	1	2	3	4	5
18 Huysuz	1	2	3	4	5	41 Hoşgörülü	1	2	3	4	5
19 Yardımsever	1	2	3	4	5	42 Düzenli	1	2	3	4	5
20 Kabiliyetli	1	2	3	4	5	43 Titiz	1	2	3	4	5
21 Üşengeç	1	2	3	4	5	44 Tedbirli	1	2	3	4	5
22 Sorumsuz	1	2	3	4	5	45 Azimli	1	2	3	4	5
23 Sevecen	1	2	3	4	5						

APPENDIX K

POSITIVE AND NEGATIVE AFFECT SCHEDULE

Bu ölçek farklı duyguları tanımlayan bir takım sözcükler içermektedir. Son iki hafta nasıl hissettiğinizi düşünüp her maddeyi okuyun. Uygun cevabı her maddenin yanında ayrılan yere (puanları daire içine alarak) işaretleyin. Cevaplarınızı verirken aşağıdaki puanları kullanın.

1. Çok az veya hiç
2. Biraz
3. Ortalama
4. Oldukça
5. Çok fazla

1. İlgili _____ 1 _____ 2 _____ 3 _____ 4 _____ 5
2. Sıkıntılı _____ 1 _____ 2 _____ 3 _____ 4 _____ 5
3. Heyecanlı _____ 1 _____ 2 _____ 3 _____ 4 _____ 5
4. Mutsuz _____ 1 _____ 2 _____ 3 _____ 4 _____ 5
5. Güçlü _____ 1 _____ 2 _____ 3 _____ 4 _____ 5
6. Suçlu _____ 1 _____ 2 _____ 3 _____ 4 _____ 5
7. Ürkmüş _____ 1 _____ 2 _____ 3 _____ 4 _____ 5
8. Düşmanca _____ 1 _____ 2 _____ 3 _____ 4 _____ 5
9. Hevesli _____ 1 _____ 2 _____ 3 _____ 4 _____ 5
10. Gururlu _____ 1 _____ 2 _____ 3 _____ 4 _____ 5
11. Asabi _____ 1 _____ 2 _____ 3 _____ 4 _____ 5
12. Uyanık _____ 1 _____ 2 _____ 3 _____ 4 _____ 5
13. Utanmış _____ 1 _____ 2 _____ 3 _____ 4 _____ 5
14. İlhamlı _____ 1 _____ 2 _____ 3 _____ 4 _____ 5
(yaratıcı düşüncelerle dolu)
15. Sinirli _____ 1 _____ 2 _____ 3 _____ 4 _____ 5
16. Kararlı _____ 1 _____ 2 _____ 3 _____ 4 _____ 5
17. Dikkatli _____ 1 _____ 2 _____ 3 _____ 4 _____ 5
18. Tedirgin _____ 1 _____ 2 _____ 3 _____ 4 _____ 5
19. Aktif _____ 1 _____ 2 _____ 3 _____ 4 _____ 5
20. Korkmuş _____ 1 _____ 2 _____ 3 _____ 4 _____ 5

APPENDIX L

WAYS OF COPING INVENTORY

AÇIKLAMA

Sizden istenilen karşılaştığınız sorunlarla başa çıkabilmek için neler yaptığınızı göz önünde bulundurarak, aşağıdaki maddeleri cevap kağıdı üzerinde işaretlemenizdir. Lütfen her bir maddeyi dikkatle okuyunuz ve cevap formu üzerindeki aynı maddeye ait cevap şıklarından birini daire içine alarak cevabınızı belirtiniz. Başlamadan önce örnek maddeyi incelemeniz yararlı olacaktır.

1. Aklımı kurcalayan şeylerden kurtulmak için değişik işlerle uğraşırım.....
1.....2.....3.....4.....5
2. Bir sıkıntı olduğumu kimsenin bilmesini istemem
1.....2.....3.....4.....5
3. Bir mucize olmasını beklerim.....
1.....2.....3.....4.....5
4. İyimser olmaya çalışırım.....
1.....2.....3.....4.....5
5. “ Bunu da atlarsam sırtım yere gelmez ” diye düşünürüm.....
1.....2.....3.....4.....5
6. Çevremdeki insanlardan problemi çözmeye bana yardımcı olmalarını beklerim.1.....2.....3.....4.....5
7. Bazı şeyleri büyütmemeye üzerinde durmamaya çalışırım.....
1.....2.....3.....4.....5
8. Sakin kafayla düşünmeye ve öfkelenmemeye çalışırım.....
1.....2.....3.....4.....5
9. Bu sıkıntılı dönem bir an önce geçsin isterim.....
1.....2.....3.....4.....5
10. Olayın değerlendirmesini yaparak en iyi kararı vermeye çalışırım.....1.....2.....3.....4.....5
11. Konuyla ilgili olarak başkalarının ne düşündüğünü anlamaya çalışırım.....1.....2.....3.....4.....5
12. Problemin kendiliğinden hallolacağına inanırım.....
1.....2.....3.....4.....5
13. Ne olursa olsun kendimde direnme ve mücadele etme gücü hissederim.....
1.....2.....3.....4.....5
14. Başkalarının rahatlamama yardımcı olmalarını beklerim.....
1.....2.....3.....4.....5
15. Kendime karşı hoşgörülü olmaya çalışırım.....
1.....2.....3.....4.....5
16. Olanları unutmaya çalışırım.....
1.....2.....3.....4.....5
17. Telaşımı belli etmemeye ve sakin olmaya çalışırım.....
1.....2.....3.....4.....5
18. “ Başa gelen çekilir ” diye düşünürüm.....
1.....2.....3.....4.....5
19. Problemin ciddiyetini anlamaya çalışırım.....
1.....2.....3.....4.....5
20. Kendimi kapana sıkışmış gibi hissederim.....
1.....2.....3.....4.....5

21. Duygularımı paylaştığım kişilerin bana hak vermesini isterim.....
1.....2.....3.....4.....5
22. Hayatta neyin önemli olduğunu keşfederim.....
1.....2.....3.....4.....5
23. “ Her işte bir hayır vardır ” diye düşünürüm.....
1.....2.....3.....4.....5
24. Sıkıntılı olduğumda her zamankinden fazla uyurum.....
1.....2.....3.....4.....5
25. İçinde bulunduğum kötü durumu kimsenin bilmesini istemem.....
1.....2.....3.....4.....5
26. Dua ederek Allah’tan yardım dilerim.....
1.....2.....3.....4.....5
27. Olayı yavaşlatmaya ve böylece kararı ertelemeye çalışırım.....
1.....2.....3.....4.....5
28. Olanla yetinmeye çalışırım.....
1.....2.....3.....4.....5
29. Olanları kafama takıp sürekli düşünmekten kendimi alamam.....
1.....2.....3.....4.....5
30. İçimde tutmaktansa paylaşmayı tercih ederim.....
1.....2.....3.....4.....5
31. Mutlaka bir yol bulabileceğime inanır, bu yolda uğraşırım.....
1.....2.....3.....4.....5
32. Sanki bu bir sorun değilmiş gibi davranırım.....
1.....2.....3.....4.....5
33. Olanlardan kimseye söz etmemeyi tercih ederim.....
1.....2.....3.....4.....5
34. “ İş olacağına varır ” diye düşünürüm.....
1.....2.....3.....4.....5
35. Neler olabileceğini düşünüp ona göre davranmaya çalışırım.....
1.....2.....3.....4.....5
36. İşin içinden çıkamayınca “ elimden birşey gelmiyor ” der,
durumu olduğu gibi kabullenirim.....
1.....2.....3.....4.....5
37. İlk anda aklıma gelen kararı uygulam.....
1.....2.....3.....4.....5
38. Ne yapacağıma karar vermeden önce arkadaşlarımdan fikrini alırım.....
1.....2.....3.....4.....5
39. Herşeye yeniden başlayacak gücü bulurum.....
1.....2.....3.....4.....5
40. Problemin çözümü için adak adarım.....
1.....2.....3.....4.....5
41. Olaylardan olumlu birşey çıkarmaya çalışırım.....
1.....2.....3.....4.....5
42. Kırgınlığımı belirtirsem kendimi rahatlamış hissederim.....
1.....2.....3.....4.....5
43. Alın yazısına ve bunun değişmeyeceğine inanırım.....
1.....2.....3.....4.....5
44. Soruna birkaç farklı çözüm yolu ararım.....
1.....2.....3.....4.....5
45. Başıma gelenlerin herkesin başına gelebilecek şeyler olduğuna inanırım.....
1.....2.....3.....4.....5
46. “ Olanları keşke değiştirebilseydim ” derim.....
1.....2.....3.....4.....5

47. Aile büyüklerine danışmayı tercih ederim.....
1.....2.....3.....4.....5
48. Yaşamla ilgili yeni bir inanç geliştirmeye çalışırım.....
1.....2.....3.....4.....5
49. “ Herşeye rağmen elde ettiğim bir kazanç vardır ” diye düşünürüm.....
1.....2.....3.....4.....5
50. Gururumu koruyup güçlü görünmeye çalışırım.....
1.....2.....3.....4.....5
51. Bu işin kefarecini (bedelini) ödemeye çalışırım.....
1.....2.....3.....4.....5
52. Problemi adım adım çözmeye çalışırım.....
1.....2.....3.....4.....5
53. Elimden hiç birşeyin gelmeyeceğine inanırım.....
1.....2.....3.....4.....5
54. Problemin çözümü için bir uzmana danışmanın en iyi yol olacağına inanırım
1.....2.....3.....4.....5
55. Problemin çözümü için hocaya okunurum.....
1.....2.....3.....4.....5
56. Herşeyin istediğim gibi olmayacağına inanırım.....
1.....2.....3.....4.....5
57. Bu deritten kurtulayım diye fakir fukaraya sadaka veririm.....
1.....2.....3.....4.....5
58. Ne yapılacağını planlayıp ona göre davranırım.....
1.....2.....3.....4.....5
59. Mücadeleden vazgeçerim.....
1.....2.....3.....4.....5
60. Sorunun benden kaynaklandığını düşünürüm.....
1.....2.....3.....4.....5
61. Olaylar karşısında “ kaderim buymuş ” derim.....
1.....2.....3.....4.....5
62. Sorunun gerçek nedenini anlayabilmek için başkalarına danışırım.....
1.....2.....3.....4.....5
63. “ Keşke daha güçlü bir insan olsaydım ” diye düşünürüm.....
1.....2.....3.....4.....5
64. Nazarlık takarak, muska taşıyarak benzer olayların olmaması
için önlemler alırım.....
1.....2.....3.....4.....5
65. Ne olup bittiğini anlayabilmek için sorunu enine boyuna düşünürüm.....
1.....2.....3.....4.....5
66. “ Benim suçum ne ” diye düşünürüm.....
1.....2.....3.....4.....5
67. “ Allah’ın takdiri buymuş ” diye kendimi teselli ederim.....
1.....2.....3.....4.....5
68. Temkinli olmaya ve yanlış yapmamaya çalışırım.....
1.....2.....3.....4.....5
69. Bana destek olabilecek kişilerin varlığını bilmek beni rahatlatır.....
1.....2.....3.....4.....5
70. Çözüm için kendim birşeyler yapmak istemem.....
1.....2.....3.....4.....5
71. “ Hep benim yüzümden oldu ” diye düşünürüm.....
1.....2.....3.....4.....5
72. Mutlu olmak için başka yollar ararım.....
1.....2.....3.....4.....5

73. Hakkımı savunabileceğime inanırım.....
1.....2.....3.....4.....5
74. Bir kişi olarak iyi yönde değiştiğimi ve olgunlaştığımı hissedirim.....
1.....2.....3.....4.....5

APPENDIX M
TRAIT ANGER / ANGER EXPRESSION INVENTORY

1.Bölüm: Aşağıdaki ifadeler sizi ne kadar tanımlıyor?

YÖNERGE: Aşağıda, kişilerin kendilerine ait duygularını anlatırken kullandıkları bir takım ifadeler verilmiştir. **Her ifadeyi okuyun, sonra genel olarak nasıl hissettiğinizi düşünün ve ifadenin sağ tarafındaki sayılar arasında sizi en iyi tanımlayanı seçerek üzerine (X) işareti koyun.** Doğru ya da yanlış cevap yoktur. Herhangi bir ifadenin üzerinde fazla zaman sarf etmeksizin, genel olarak nasıl hissettiğinizi gösteren cevabı işaretleyin.

	HİÇ	BİRAZ	OLDUKÇA	TÜMÜYLE
1.Çabuk parlarım	1	2	3	4
2.Kızgın mizaçlıyım	1	2	3	4
3.Öfkesi burnunda bir insanım	1	2	3	4
4.Başkalarının hataları yaptığım işi yavaşlatınca kızarım	1	2	3	4
5.Yaptığım iyi bir işten sonra takdir edilmemek canımı sıkar	1	2	3	4
6.Öfkelenince kontrolümü kaybederim	1	2	3	4
7.Öfkelenince ağzıma geleni söylerim	1	2	3	4
8.Başkalarının önünde eleştirilmek beni çok hiddetlendirir	1	2	3	4
9.Engellendiğimde içimden birilerine vurmak gelir	1	2	3	4
10.Yaptığım iyi bir iş kötü değerlendirildiğinde çılına dönerim	1	2	3	4

2.Bölüm: Öfkelendiğimde veya kızdığımda...

YÖNERGE: Herkes zaman zaman kızgınlık veya öfke duyabilir. Ancak, kişilerin öfke duyguları ile ilgili tepkileri farklıdır. Aşağıda, kişilerin öfke ve kızgınlık tepkilerini tanımlarken kullandıkları ifadeleri göreceksiniz. **Her bir ifadeyi okuyun ve öfke ve kızgınlık duyduğunuzda genelde ne yaptığınızı düşünerek o ifadenin yanında sizi en iyi tanımlayan sayının üzerine (X) işareti koyarak belirtin.** Doğru veya yanlış cevap yoktur. Herhangi bir ifadenin üzerinde fazla zaman sarf etmeyin.

	HİÇ	BİRAZ	OLDUKÇA	TÜMÜYLE
1.Öfkemi kontrol ederim	1	2	3	4
2.Kızgınlığımı gösteririm	1	2	3	4
3.Öfkemi içime atarım	1	2	3	4
4.Başkalarına karşı sabırlıyım	1	2	3	4
5.Somurtur ya da surat asarım	1	2	3	4
6.İnsanlardan uzak dururum	1	2	3	4
7.Başkalarına iğneli sözler söylerim	1	2	3	4
8.Soğukkanlılığımı korurum	1	2	3	4
9.Kapıları çarpmak gibi şeyler yaparım	1	2	3	4
10.İçin için köpürürüm ama gösteremem	1	2	3	4
11.Davranışlarımı kontrol ederim	1	2	3	4
12.Başkalarıyla tartışırım	1	2	3	4
13.İçimde, kimseye söyleyemediğim kinler beslerim	1	2	3	4
14.Beni çileden çıkararak her neyse saldırırım	1	2	3	4
15.Öfkem kontrolden çıkmadan kendimi durdurabilirim	1	2	3	4
16.Gizliden gizliye insanları epeyce eleştiririm	1	2	3	4
17.Belli ettiğimden daha öfkeliyimdir	1	2	3	4

18.Çoğu kimseye kıyasla daha çabuk sakinleşirim	1	2	3	4
19.Kötü şeyler söylerim	1	2	3	4
20.Hoşgörülü ve anlayışlı olmaya çalışırım	1	2	3	4
21.İçimden insanların fark ettiğinden daha fazla sinirlenirim	1	2	3	4
22.Sinirlerime hakim olamam	1	2	3	4
23.Beni sınırlendirene ne hissettiğimi söylerim	1	2	3	4
24.Kızgınlık duygularımı kontrol ederim	1	2	3	4

APPENDIX N
CURRICULUM VITAE

Personal Information

Surname, Name: Öncül, Öznur

Nationality: Turkey (TC)

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Language Skills

Good command of English

French (Intermediate level)

Computer Skills

MS Office

Statistical Package for Social Sciences

Lisrel

Education

PhD., Clinical Psychology, 2014, Middle East Technical University, Ankara, Turkey. CGPA: 3.94 / 4 (Official Transcript available upon request)

M.S., Clinical Psychology, 2008, Middle East Technical University, Ankara, Turkey. CGPA: 3.36 / 4 (Official Transcript available upon request)

B.S., Department of Psychology, 2005, Middle East Technical University, Ankara, Turkey. CGPA: 3.03 / 4 (Official Transcript available upon request)

Professional Experience

Visiting Researcher: November 2012 – June 2013, University of Birmingham, School of Psychology, Centre for Forensic and Criminological Psychology. Birmingham, United Kingdom

Research Assistant: 2005-2013, Department of Psychology, Middle East Technical University, Ankara, Turkey

International Publications and Papers

Gençöz, T. & Öncül, Ö. (2012). Examination of Personality Characteristics in a Turkish Sample via Five Factor Model of Personality: Development of Basic Personality Traits Inventory. *Journal of General Psychology*, 139(3), 194-216.

International Publications and Papers in Progress

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Öncül, Ö., Hamilton-Giachritsis, C., & Saraw, S. (In Progress). Age-Specific and Age-Independent Factors Associated with Sexually Harmful Behaviour among Children and Young People.

Saraw, S., Hamilton-Giachritsis, C., & Öncül, Ö. (In Progress). A risk and strength perspective of children and young people with sexually harmful behavior.

Öncül, Ö., Köse, B., & Gençöz, T. (In progress). Personality traits in relation to mood: Depressive symptoms, positive affect, and negative affect.

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International Conference Presentations

Öncül, Ö. & Gençöz, T. (2011). Investigating dynamic risk and protective factors: Associated variables with criminal thinking. Shanghai International Conference on Social Science, August 17-20, Shanghai, People's Republic of China (Oral Presentation, Session Chair).

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- Öncül, Ö. & Cenesiz, G. Z. (2007). Does Schemas Have Personalities? An Investigation of Young's Early Maladaptive Schemas (EMSs) through Big Five Personality. 5th World Congress of Behavioral and Cognitive Therapy, July 11-14, Barcelona, Spain. (Poster Presentation).

National Conference Presentations

- Öncül, Ö. (2012). Suç Davranışını Konu Edinen Psikoloji Araştırmalarının Yöntemsel Eleştirisi, (*A Methodological Criticism of the Psychological Research that Investigate Criminal Behavior*). III. Critical Psychology Symposium, September 15-16, Diyarbakır. (Oral Presentation)
- Öncül, Ö. & Yüksel, M. M. (2011). Şizofreni Hastalarıyla Sosyal Beceri Eğitimi, (*Social skills training with schizophrenia patients*). V. National Congress of Psychology Graduate Students, September 14-18, İstanbul (Workshop)
- Öncül, Ö. & Gençöz, T. (2008). Suç davranışına eşlik eden psikososyal değişkenler. (*Psychosocial factors associated with criminal behavior*). 15. National Congress of Psychology, September 3-5, İstanbul (Oral Presentation)
- Öncül, Ö. & Gençöz, T. (2008). Sınırdaki kişilik bozukluğu belirtilerine eşlik eden faktörler: Temel kişilik özellikleri, baş etme mekanizmaları ve aile ortamı açısından bir inceleme. (*Factors associated with borderline personality characteristics: An investigation of basic personality traits,*

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- Çenesiz, G. Z., & Öncül, Ö. (2006). Sinemada korku öğelerinin ele alınışı. (*Fear themes in movies*). 11. National Congress of Psychology Students, July 5 – 8, İzmir (Oral Presentation)

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- Öncül, Ö., Yergin, F. & Coşkan, C. (2009, March). Sosyal Bilimlerde İstatistik, Araştırma Yöntemleri & SPSS. (*Statistics in social sciences, research methods & spss*). Turkish Ministry of Justice General Directorate of the Prisons and Detention Houses, Ankara Education Centre.
- Öncül, Ö. (2009, February). Yeniden Suç İşlemeyi Önleme. (*Preventing recidivism*). Turkish Ministry of Justice General Directorate of the Prisons and Detention Houses, Ankara Education Centre

Research Projects

- Gençöz, T. & Öncül, Ö. Basic Personality Characteristics: Scale Development for Turkish Culture (*Temel Kişilik Özellikleri: Türk Kültürü için Ölçek Geliştirme*), 2006-2007, METU, BAP (Project Assitant)
- Öncül, Ö. & Gençöz, T. The relationship between Antisocial Personality Organization and Early Maladaptive Schemas: The Mediator Role of Big-5 Personality Dimensions (*Antisosyal Kişilik Organizasyonu ile Erken Dönem Şemalar Arasındaki İlişki: Büyük Beşli Kişilik Boyutlarının Aracı Rolü*). ÖYP Project, 2007-2008 (Project Assistant)

Doctorate's Thesis

- Öncül, Ö. (2014). Investigating Cognitive Mechanisms of Offending Among Adult and Juvenile Male Prisoners: Suggestions for Intervention. Unpublished Doctorate's Thesis, Middle East Technical University. (Advisor: Prof. Dr. Tülin Gençöz).

Master's Thesis

- Öncül, Ö. (2008). Roles of Basic Personality Traits, Schema Coping Responses, and Toxic Childhood Experiences on Antisocial, Borderline, and Psychopathic Personality Characteristics. Unpublished Master's Thesis, Middle East Technical University. (Advisor: Prof. Dr. Tülin Gençöz).

International Institution Visits

G-Map: An independent organisation providing services for young people who display inappropriate sexual behaviours. Manchester, United Kingdom (April, 2013). URL: <http://www.g-map.org>

CEOP: Child Exploitation and Online Protection Centre, London, United Kingdom (May, 2013). URL: www.ceop.police.uk

Field Experience

May 2007 – September 2007

Muğla Prison and Detention House, Denizli D Type Prison and Detention House, Ankara Closed Prison and Detention House for Women

Duties: Conducting observations and interviews

November 2011(10 days)

Yenişehir Tent City of Turkish Red Crescent, Erciş, Van

Duties: Providing psychosocial help for victims of Erciş earthquake

December 2011(10 days)

Yenişehir Tent City of Turkish Red Crescent, Erciş, Van

Duties: Providing psychosocial help for victims of Erciş earthquake

Internships

September 2011-Present

Ayna Clinical Psychology Unit, Department of Psychology, Middle East Technical University

Duties: Giving supervision

October 2010-January 2011

Numune Hospital 1st Psychiatry Clinic

Duties: Application and interpretation of MMPI, Beier sentence completion test, Rorschach, and TAT; attending to visits, cognitive-behavioral therapy with anxious and depressive patients.

October 2009-Present

Ayna Clinical Psychology Unit, Department of Psychology, Middle East Technical University

Duties: Conducting cognitive-behavioral psychotherapy

Total hour of supervision: 150

February 2007-June 2007

Numune Hospital 1st Psychiatry Clinic

Duties: Application and interpretation of MMPI, Beier sentence completion test; attending to visits, cognitive-behavioral therapy with anxious and depressive patients.

October 2006-January 2007

Dışkapı Education and Research Hospital Adolescent Psychiatry Clinic,
Ankara

Duties: Application and interpretation of WAIS-R, WISC-R, KENT-EGY, and cognitive-behavioral psychotherapy with adolescents suffering from adaptation problems and exam anxiety.

March 2006 - June 2006

Hacettepe University Child Psychiatry Clinic, Ankara

Duties: Application and interpretation of WISC-R

June 2004 – September 2004

Gülhane Military Medical Academy (GATA) Psychiatry Clinic, Ankara

Duties: Attending to visits, conducting first-interview sessions, application and interpretation of MMPI, KENT-EGY, WAIS-R and report writing.

July 2003 - August 2003

Marmara University Psychiatry Clinic, İstanbul

Duties: Attending to visits, observing the first-interview sessions.

Teaching Experience (Teaching Assistance)

1- Psy 491/492 Field Practice in Clinical Psychology (Field practice with patients suffering from schizophrenia) (September 2006 - June 2012; both fall and spring terms)

Instructor: Prof. Dr. A. Nuray Karancı

Duties:

- Sustaining communication between students and “Association for schizophrenia patients and their caregivers”.
- Giving instruction about social skills training for schizophrenia

2- Psy 214 Research Methods (February 2008 – June 2012; spring terms)

Instructor: Prof. Dr. Tülin Gençöz

Duties:

- 6 hours instruction about APA writing rules
- Recitation hours (4-hours) about experimental designs
- Office hours in order to check, give feedback, and grade the papers.

3- Psy 340 Theories of Personality (September 2007 – June 2012; fall terms)

Instructor: Prof. Dr. Tülin Gençöz

Duties:

4 hours instruction about Rogerian (person-centered approach) theory of personality

Volunteer Work

Association for schizophrenia patients and their caregivers

(September 2004 – June 2012)

Duties: Social Skills Training with Schizophrenia Patients, Encounter Groups with Schizophrenia Patients and Their Caregivers.

Translated Books & Chapters

Smith, E. E., Nolen-Hoeksema, S., Fredrickson, B. L. & Loftus, G. R. (Eds.) (2003) Atkinson & Hilgard's Introduction to Psychology (14th ed.). Ch. 1-8. Arkadaş Yayınevi.

E-Journal Papers

Öncül, Ö (2011). Yaban Çilekleri. (Raflarda Tozlanmayanlar-2) (*Wild Strawberries*). *Psinema: Sinema ve Psikoloji Dergisi (Psinema: Journal of Movies and Psychology)*, 14.

Öncül, Ö (2011). Şimdi Geçmişini Özlüyorum. (Raflarda Tozlanmayanlar-1) (*Now I long for yesterday*). *Psinema: Sinema ve Psikoloji Dergisi (Psinema: Journal of Movies and Psychology)*, 13.

Öncül, Ö (2009). Kızarmış Yeşil Domatesler (*Fried Green Tomatoes*). *Psinema: Sinema ve Psikoloji Dergisi (Psinema: Journal of Movies and Psychology)*, 7.

Öncül, Ö (2009). Kaynak (*Fountain*). *Psinema: Sinema ve Psikoloji Dergisi (Psinema: Journal of Movies and Psychology)*, 6.

Attended Workshops & Trainings

Forensic Risk Assessment (Full-Day Seminar Module-7 weeks). University of Birmingham, Birmingham, UK.

Forensic Psychotherapies (Full-Day Seminar Module-7 weeks). University of Birmingham, Birmingham, UK.

NOTA (The National Organisation for the Treatment of Abusers) Midlands Half-Day Training. *Obsessionality and Sexual Offending* (by Vince Egan). 21 March 2013, Fircroft College, Birmingham, UK.

NOTA (The National Organisation for the Treatment of Abusers) Midlands Half-Day Training. *The History and Future of Sexual Deviance in Sex Offender Risk-Assesment and Intervention* (by David Glasgow). 21 March 2013, Fircroft College, Birmingham, UK.

Schema Therapy Symposium. (by Gonca Soygüt & Alp Karaosmanoğlu). 10-12 March 2006. Istanbul.

Memberships

Association of Psychologists for Social Solidarity (TODAP)

European Association of Psychology and Law

Professional Areas of Interest

Forensic Clinical Psychology

Offence-Supportive Cognitions

Desistance from Offending

Sexually Harmful Behavior among Children and Young People

Personality Disorders

Therapeutic Relationship

Trait Approach to Personality

Rogerian (Person-Centred) Psychotherapy

References

Available upon request.

APPENDIX O

TURKISH SUMMARY

SUÇ DAVRANIŞI İLE İLİŞKİLİ BİLİŞSEL MEKANİZMALARIN YETİŞKİN VE GENÇ ERKEK MAHKUMLAR ÖRNEKLEMLERİNDE ARAŞTIRILMASI: REHABİLİTASYON ÇALIŞMALARI İÇİN ÖNERİLER

Suç davranışını konu edinen çalışmalar, yıllar boyunca, bu davranışa eşlik ya da etki eden bir takım değişkenleri belirlemekte önemli yollar katetmiştir. Ancak, suç davranışının nasıl bir mekanizma doğrultusunda geliştiği, henüz bütünlüklü bir açıklamaya ulaşmamıştır. Bu çalışmanın amacı, en genel haliyle, suç davranışına neden olduğu düşünülen bilişsel faktörlerin nasıl bir mekanizma içerisinde bir araya gelerek bu davranışı ortaya çıkarttığını incelemektir.

Suç davranışı ile ilişkili bilişsel faktörler denildiğinde literatürde sıklıkla ön plana çıkan kavram “suçu destekleyen düşünceler” kavramıdır. Suçu destekleyen düşünceler, suç davranışını haklı çıkartmaya yönelik, suç işlemenin mantıksal gerekçelerine işaret eden tutum, inanç ve savunma stratejilerinin toplamıdır. Zaman zaman bu bilişsel değişkenlerin, içeriklerinin suçu destekleyici nitelikte olması sebebiyle “bilişsel hatalar” ya da “çarpık inançlar” olarak betimlendiği de görülmektedir. Suçu destekleyen düşüncelerin, kişiyi, davranışının sorumluluğunu üstlenmekten alı koyduğu varsayılmaktadır. Kişi, işlediği suçun nedenlerini dışsal faktörlere atfettiği ve kendinde herhangi bir sorumluluk (ya da hata) görmediği için kendisiyle ilgili değiştirilmesi gereken bir şey olduğunu düşünmeyecek ve rehabilitasyon çalışmaları karşısında direnç gösterecektir. Daha da önemlisi, kişinin işlediği suçu destekleyen düşüncelere sahip olduğu sürece yeniden suç işleme ihtimalinin de yüksek olduğu düşünülmektedir. Bu anlamda suçu destekleyen düşünceler “kriminolojik” (suça neden olan) bir faktör olarak tanımlanmakta ve rehabilitasyon çalışmalarında sıklıkla üzerinde durulmaktadır.

Öte yandan suçu destekleyen düşünceler kavramının literatürde ön plana çıkması bir çok tartışmayı da beraberinde getirmiştir. Bu tartışmaların ilki, suçu destekleyen düşüncelerin tanımlanışına yönelik eleştirilerdir. Maruna ve Mann

(2006), bilişsel kurama atıfta bulunarak, “inanç”, “tutum”, “varsayım”, “düşünce” ve “savunma”ların farklı bilişsel yapılar olduğuna değinmekte ve bu yapıların bir arada (tek bir kavram altında) değerlendirilemeyeceğinin altını çizmektedir. Suçu destekleyen her bir bilişsel faktör, tek bir amaca hizmet ediyor gibi görünse de (örn., suçluluk duygusunun azaltılması) ve birbirleriyle ilişkili olsalar da, gelişimsel olarak farklı yapılardır. Buna göre, örneğin “inanç” çocukluk ve ilk gençlik yıllarından itibaren gelişen, görece değişkenlik arz etmeyen bir yapı olmakla beraber “savunma”, belli bir amaç doğrultusunda başvuru, gelip geçici bir stratejidir. Bu nedenle, suç davranışının ardında yatan bilişsel mekanizmaları anlayabilmek için bu yapıları ayrı ayrı değerlendirmek gerekmektedir. Bu tartışmaya ek olarak, Stanko (2003), suçu destekleyen düşüncelerin ya da suç davranışının hangisinin bir diğerine neden olduğunun net olmadığını vurgulamaktadır. Dolayısıyla, gelişimi uzun yıllar almış kalıcı yapılarla (örn., inanç, tutum) görece geçici yapıların (örn., savunma stratejileri) ayrıştırılması, bu yapıların suç davranışına “ne zaman” etkide bulunduğu anlaşılması açısından da önemlidir. Son olarak, suçu destekleyen düşüncelerin “çarpık”, “hatalı” ya da “psikopatolojik” olarak değerlendirilmeden önce nasıl ortaya çıktıklarının ve işlevlerinin anlaşılması gerektiği üzerinde durulmuştur.

Literatürde, suçla ilişkili farklı bilişsel yapıları ayrı ayrı ele alan çalışmalara nadiren rastlanılmaktadır. Suçu destekleyen “inançları” tanımlayabilmek için, suç davranışı ile ilişkili “kalıcı” bilişsel yapıların irdelendiği araştırmalar dikkate alınmıştır. Bu çalışmaların bulguları, suç işleyen kişilerin özellikle “güçlü olmaya”, “güvende olmaya” ve “adaletin sağlanmasına” dair temel bir takım varsayımları olduğunu göstermektedir. Bir çok kriminoloji kuramı, kişinin kendisini, çevresini ve dünyayı algılayış biçimini belirleyen bu varsayımların nasıl geliştiğini ve nasıl suç davranışı ile ilişkilendiğini açıklamaktadır. Ancak, özellikle vurgulanması gereken nokta, bu inançların çocukluk ve ilk gençlik yıllarında geliştiği, sonraki davranışlar üzerinde belirleyici etkinliğe sahip oldukları, ancak doğrudan suç davranışına neden olamayacaklarıdır. Bu inançların suç davranışına neden olabilmesi için, öncelikle “aktif hale gelmeleri” ve diğer başka varsayımlarla etkileşim içerisine girmesi gerekmektedir. Örneğin, bu dünyada ancak güçlü olanların saygı görebileceğine ve varlıklarını devam ettirebileceklerine dair temel bir varsayıma sahip bir kişi,

kendisini güçsüz ya da savunmasız hissettirebilecek bir durum karşısında, daha önce öğrenmiş olduğu üzere şiddete başvurarak güçlü olduğunu gösterme çabası içerisine girebilir. Bu aşamada ortaya çıkan duygular (örn., öfke, engellenmişlik, korku) ve bu duygularla nasıl baş edildiği son derece önemlidir. Etkili duygu düzenleme stratejilerine başvuran bir kişi, suça ya da şiddete başvurma ihtimalini aklına getirirse bile, bu durumun olumsuz sonuçlarını ön görebilecek ve büyük ihtimalle suçta başvurmayacaktır. Ancak, suç işlemiş kişilerin anlatımları, bu aşamada kişilerin duygu düzenleme konusunda güçlük yaşadıklarına, suç davranışını “avantajlı” olarak algıladıklarına ve bir takım faktörlerin (alkol, uyuşturucu madde kullanımı gibi) bu durumla baş edilmesini daha güç hale getirdiğine işaret etmektedir. Suç işleme anında en çok ön plana çıkan bilişsel yapı, “avantaj/dezavantaj” karar dengesidir. Bir çok kriminoloji kuramının da değindiği üzere, “suç işlemenin kısa vadede avantajlı olarak algılanması”, bir çok kişiyi suç işleme anında “motive eden” ya da “dürtüsel davranmaya iten” güçlü bir faktördür. Suç işlemiş kişilerin suç anına dair anlatımları incelendiğinde, algıladıkları avantajların büyük oranda daha önce belirtilen “bilişsel varsayımları” yansıttığı görülmektedir. Buna göre, suç işleme anında aktive edilmiş olan “temel varsayımlar”, kişinin suç işlemeye yönelik motivasyonuna temel teşkil etmektedir. Bu noktadan hareketle, “kişinin suç davranışını daha dezavantajlı algıladığı durumda suç işlemeyeceği” varsayımı türetilmiş ve başta ceza infaz sistemi olmak üzere suçun yeniden işlenmesinin önlenmesine yönelik politikalar çoğunlukla bu varsayıma dayandırılmıştır. Buna göre kişi, suç davranışının olumsuz sonuçlarıyla karşılaştığı ölçüde yeniden suç işlemeye teşebbüs etmeyecektir. Ancak bu varsayım, pratikte karşılığını beklendiği ölçüde bulamamıştır. Kişinin, başta mahkumiyet olmak üzere suçun olumsuz sonuçlarını deneyimlemesine rağmen neden “işlediği suçu savunmaya devam ettiği” ve kimi durumlarda “yeniden suç işlediği” büyük oranda bilinmezliğini korumaktadır. Bu konulara açıklık getirebilmek için, kişinin suç işledikten (ve hüküm giydikten) sonraki psikolojik durumunu anlamak son derece önemlidir.

Hem uygulama alanındaki uzmanların gözlemleri hem de ampirik veriler, suç işleyen kişilerin, suçu normalleştiren, önemini küçümseyen, nedenlerini dışsal etmenlere atfeden savunma stratejilerine başvurduklarını göstermektedir. Daha önce de belirtildiği üzere bu stratejiler, suçu destekleyici nitelikte olmaları sebebiyle çoğu

zaman “kriminojenik” olarak nitelendirilmiş ve rehabilitasyon programları ile azaltılmaya çalışılmıştır. Ancak, özellikle “mahkum edilme” deneyiminin benlik saygısına ciddi bir tehdit oluşturduğunu gözlemleyen kuramcılar, suç işleme sonrasında başvurulmuş savunma stratejilerinin “benlik saygısını arttırma” ve “suçluluk duygusunu azaltma” işlevi gördüğünü öne sürmüştür. Bu çıkarsamadan hareketle, suçu destekleyen temel inanç ve varsayımların, suç işlemenin avantajlı olmasına yol açması sebebiyle “kriminojenik” olduğunu söylemek mümkündür. Öte yandan savunma stratejileri “benlik saygısını arttırmak” için başvurulmuş doğal bir mekanizma olup “kriminojenik” olarak nitelendirilmemelidir. Kişinin suç davranışının ve bu davranışı destekleyen bilişsel mekanizmaların irdelenebilmesi için öncelikle benlik saygısını korumaya yönelik müdahalelere gereksinim olduğu açıktır. Böylelikle suç davranışının değerlendirildiği müdahale programları kişinin benlik saygısına bir tehdit olmaktan çıkacak ve asıl kriminojenik olan inanç ve varsayımlara erişilebilecektir. Farklı savunma stratejileri ve örneklemeler üzerine yapılan araştırmalar, bu varsayımları destekler niteliktedir.

Suç davranışı ile ilişkili bilişsel yapıların gençlerde de benzer bir mekanizma ile hareket edip etmediğini anlayabilmek için öncelikle gençlerin kendilerine özgü, onları yetişkinlerden ayıran, özellik ve ihtiyaçlarının ortaya konulması önemlidir. Bir çok kuramcı, “başarı”, “aile ve arkadaşlık ilişkileri” ve “sosyal çevre ile etkileşim”le ilgili konuların gençlerin hayatında öncelikli yer teşkil ettiğini öne sürmüştür. Buna göre, geleceğe dair belirsizlik, umutsuzluk, fırsatlara erişimde yaşanan güçlükler, kendini güvencesiz hissetme, kişilik gelişimi sürecinde yaşanan çatışmalar, arkadaşlık ilişkilerinin (ve kabul görme, kendini var etme gibi ihtiyaçların) önemi ve işsizlik, yoksulluk ve şiddet ortamı gibi çevresel koşullarla baş etme, suça yönelen gençlerin ön plana çıkan ihtiyaçları arasında sayılmaktadır. Suça yönelen genç, suç ve/veya şiddet davranışının normalize edildiği bir arkadaş grubu içerisinde yetişkinler dünyasında bulamadığı otonomi deneyimini gerçekleştirebilmekte, heyecan ve “can sıkıntısından kurtulma” arayışını tatmin edebilmektedir. Bir çok araştırmacı bu noktada suç davranışının gençler için bir “baş etme aracı” olduğunu öne sürmüştür. Bu anlamda suç işleme, bağlı bulunduğu yetişkin dünyasını ve bu dünya içerisinde olumsuzlukları terk etme imkanı henüz olmayan bir genç için “kaçış yolu” anlamına da gelebilmektedir. Özetle, gençlerin de yetişkinler gibi “kendini

güçlü ve güvende hissetme” ile “adaletli dünya beklentisi” içerisinde oldukları düşünülebilir. Ancak gençlerin, yetişkinlerden farklı olarak, daha kısa vadeli hedeflerle hareket ettikleri ve duygu regülasyonu anlamında daha çok güçlük yaşadıkları bilinmektedir. Dolayısıyla gençlerin suç davranışı, her ne kadar benzer bilişsel mekanizmalar doğrultusunda gelişse de, daha dürtüsel bir görünüm sergilemektedir. Suç davranışı ile ilişkili olduğu düşünülen ihtiyaçların, gençlerde, yetişkinlikte olduğu gibi “temel inanç, varsayım” düzeyinde sergilenip sergilenmediği ise bilinmezliğini korumaktadır. Her ne kadar ortak ihtiyaçlardan bahsedilse de, gençlerin henüz kimlik gelişimlerini tamamlamamış olmaları ve kendilerine, çevrelerine ve diğer insanlara dair temel inanç ve varsayımlarını halen oluşturma aşamasında olmaları, gençlerin öne süreceği bilişsel yapıların yetişkinlikten farklı bir görünüme sahip olacağı beklentisini beraberinde getirmektedir.

Suç davranışına eşlik eden bilişsel yapıların anlaşılması, yeniden suç işlemenin önlenmesini hedefleyen programların geliştirilmesi açısından oldukça önemlidir. Ancak, kişilerin neden suç işlediklerini bilmek, hangi mekanizmalar doğrultusunda suç işlemekten vazgeçeceklerini açıklamaya yetmemektedir. “Suç işlemekten vazgeçilmesi”, çoğunlukla, suçu destekleyen faktörlerin ortadan kaldırılması durumunda ortaya çıkan bir tablo olarak anlaşılmıştır. Fakat özellikle son yıllarda yapılan çalışmalar, suç işlemenin ve suç işlemekten vazgeçmenin farklı mekanizmalara dayandığına işaret etmektedir. Bu bulgulardan hareketle, “suç işlemekten vazgeçmesinin” bir “süreç” olarak ele alındığı kuramlar ortaya atılmıştır. Buna göre, “suç davranışının terk edilmesi”, bir dizi davranışsal, tutumsal, duygusal ve bilişsel değişikliği beraberinde getirmelidir. Kişinin yaşam olaylarıyla (örn. Evlenme) paralellik gösterecek olan bu değişimler sonrasında kişi, suç davranışını anlamlı/avantajlı bulmamaya başlayacaktır. Dolayısıyla, “suç işlemekten vazgeçmenin avantajları”, “suç işlemenin avantajlarından” daha baskın hale gelecektir. “Suç işlemekten vazgeçmenin” bir süreç olarak ele alındığı noktada, “değişim basamaklarını ve mekanizmalarını” açıklayan teoriler-üstü modele değinmekte fayda vardır. Prochaska, DiClemente ve Norcross (1992) tarafından geliştirilen bu modele göre, her bir değişim aşaması farklı bir bilişsel farkındalık düzeyine işaret etmekte ve dolayısıyla bireyler her bir aşamada farklı terapötik

müdahalelere ihtiyaç duymaktadırlar. “Değişim öncesi” basamakta kişi davranışını değiştirme motivasyonu içerisinde değildir ve kendisinde değiştirilmesi gereken bir problem olduğunu düşünmemektedir. Davranışın algılanan avantajlarının daha baskın olduğu bu aşamada, davranışın dezavantajlarına dair farkındalığın artırılmasına yönelik stratejilerin fayda sağlayacağı düşünülmektedir. “Değişime hazırlık” aşaması, kişinin davranıştaki problemi kabul ettiği ancak bu davranışı değiştirmeye yönelik aktif bir girişimde henüz bulunmadığı basamaktır. Kişi aktif olarak değişim sürecine katıldığında ise “karşı-koşullanma” ve “terapötik ilişki” stratejilerinden fayda sağlamaktadır. Son basamak olan “değişimin korunumu” aşamasında, kişinin davranış değişimini uzun vadeli olarak sürdürebilmesi gerekmektedir. Dolayısıyla, “önlemeye yönelik” stratejiler, bu aşamada önem kazanmaktadır. Aslında, teoriler-üstü modelin en önemli varsayımlarından biri, daha önceki değişim aşamalarına geri dönüşlerin kaçınılmaz olduğu, ancak bu geri dönüşleri deneyimleyen bireylerin, daha uzun vadeli bir “değişim korunumunu” gerçekleştireceğidir. Dolayısıyla, bireyler değişim sürecinin mekanizması hakkında bilgilendirilmeli ve “geri dönüş” dönemlerinin özellikle üzerinde durulmalıdır.

Teoriler-üstü modelin mahkum örneğine uyarlanması yeni değildir. Ancak, modelin pratikte uygulanışına dair bir takım sınırlılıklar göze çarpmaktadır. Bunların başında, “suç” davranışının tek bir davranışa hitap etmiyor olması gelmektedir. Suç davranışının karmaşık doğası gereği, suça doğrudan ya da dolaylı olarak katkı sağlayabilecek her durum/davranış tanımlanamamakta ve dolayısıyla da gözlemlenememektedir. Yine de, suç işleme ile suç işlemekten vazgeçilmesi arasındaki dönemin bir süreç olarak algılanması bakımından, teoriler-üstü modelin katkılarının yeni araştırma bulgularıyla desteklenmesinin önemli olduğu düşünülmektedir.

Bu çalışma, birbirini takip eden dört çalışmadan meydana gelmektedir. Genel olarak çalışmanın amacı, suç davranışı ile ilişkili bilişsel mekanizmaların yetişkin ve genç mahkumlar örneklerinde araştırılmasıdır. Bu amaç doğrultusunda farklı bilişsel yapıların (temel varsayımlar, savunma stratejileri ve suçun algılanan avantaj ve dezavantajları) farklı psikolojik mekanizmalarla ilişkili olacağı varsayımıyla hareket edilmiştir. İlk çalışmada bu yapıların ilişkili oldukları faktörler açıklanmış, ikinci çalışmada ise nasıl bir mekanizma doğrultusunda “değişime yönelik

motivasyonu” etkiledikleri ortaya konulmuştur. Üçüncü çalışmada, daha önce yetişkin örnekleme test edilen bulgular gençler örnekleminde yeniden incelenmiştir. Son olarak dördüncü çalışmada, ergen, genç yetişkin ve yetişkin mahkumlar arasındaki temel farklılıklara değinilmiştir.

Birinci ve ikinci çalışmalar yetişkin örneklemiyle yürütülmüştür. Çalışmaya, yaşları 18 ve 66 arasında değişen 200 erkek mahkum katılmıştır. Bu katılımcılar arasından 62 kişi, tekrar-test ölçümlerinde de yer almıştır. Anket çalışmasının öncesinde, sosyo-demografik bilgilerin elde edilmesi amacıyla yapılandırılmış bir görüşme uygulanmıştır. Bu görüşme doğrultusunda katılımcıların eğitim durumlarına, cezaevine girmeden önceki yaşantılarına, çalışma ve askerlik durumlarına, ailelerinin genel özelliklerine ve erken çocukluk dönemi yaşantılarına, genel sağlık durumlarına ve suç öykülerine dair bilgiler elde edilmiştir. Çalışma anında katılımcıların %31.5’i “tutuklu”, %41.5’i “hükümlü”, %26.5’i ise “hükmen tutuklu” statüsünde bulduklarını belirtmişlerdir. Katılımcıların kendi beyanlarına göre, %19.5’i “mala yönelik”, %28.5’i “cana yönelik”, %40.5’i “yasa dışı madde kullanımı/satılması ile ilgili”, %6’sı ise “cinsel” suçtan ötürü cezaevinde bulunmaktadır. Çalışma esnasında sadece katılımcıların sağladıkları bilgiler alınmış, herhangi bir dosya ya da ikinci şahıs bilgisinden faydalanılmamıştır.

Birinci çalışma, aynı zamanda bir ölçek adaptasyon çalışmasıdır. Öncelikle, “Suçu Destekleyen Düşünceler Ölçeği’nin” ve “Değişim Basamakları Ölçeği’nin”, her iki dile de hakim uzmanlar tarafından İngilizce’den Türkçe’ye çevirisi ve geri-çevirisi yapılmıştır. Ayrıca, Değişim Basamakları Ölçeği’nin maddeleri, literatürde daha önce yapılmış benzer çalışmalar doğrultusunda, suç davranışına ve mahkum örnekleme uygun hale getirilmiştir. Benzer şekilde, daha önce Türkçe’ye adaptasyon çalışması yapılmış olan “Kararsal Denge Ölçeği” maddeleri de suç davranışı ve mahkum örnekleme uygun hale getirilmiştir. Bu ölçeklerin güvenilirlik analizlerinin yapılabilmesi amacıyla Rosenberg Öz-Güven Ölçeği’nden, Mahkumlar için Yaşam Olayları Ölçeği’nden, Kontrol Odağı Ölçeği’nden, Temel Kişilik Özellikleri Ölçeği’nden, Pozitif ve Negatif Duygular Ölçeği’nden ve Baş Etme Yolları Envanteri’nden faydalanılmıştır.

“Suçu destekleyen varsayımların” ve “savunma stratejilerinin” ayrı ayrı irdelenmeleri amacıyla, görece daha sürekli bir düşünceyi yansıtan, kişinin

kendisine, çevresine ve dünyaya dair bakışına ait bilgi veren maddeler ve bu maddelerin oluşturdukları faktör yapıları “varsayımlar” başlığı altında değerlendirilmiştir. Suç davranışını açıklamaya yönelik, görece daha geçici düşünceleri yansıtan ifadeler ise “savunma stratejileri” başlığı altında değerlendirilmiştir. Bu ayrımın yapılması esnasında orjinal faktör yapılarına olabildiğince bağlı kalınmaya çalışılmıştır. Ancak, “varsayımlar” ve “savunma stratejilerinin” hem kuramsal hem de ampirik açıdan büyük oranda ilişkili olmaları sebebiyle bu iki grup ayrı ayrı faktör analizlerine tabii tutulmuşlardır.

Suçu destekleyen varsayımlar ölçeğinin psikometrik özelliklerine bakıldığında, bulgular ölçeğin kabul edilebilir düzeyde geçerlilik değerlerine sahip olduğunu göstermektedir. “Güç odaklı varsayımların” genel olarak düşük benlik saygısını işaret eden değişkenlerle ilişkili görülmesi, bu yapının daha altta yatan “Güçsüzlük” temel inancı ile bağlantılı olabileceğini düşündürmüştür. “Adaletsizlik odaklı varsayımların” ise, çoğunlukla “erken yaşta çalışmaya başlama”, “madde kullanımı”, “suç öyküsü” ve “cezaevinde yaşanan stresle” ilişkili olması, bu varsayımların belli yaşantılar ekseninde doğrulanarak yerleşik hale gelebileceğini düşündürmüştür. Psikopatik kişilik örüntüsünü yansıtan “soğuk kalpliliğin” ise diğer varsayımlar ve savunma stratejileri ile ilişkisiz olması dikkat çekicidir. Kişinin, kendisini, çevresini ve dünyayı nasıl algıladığından (varsayımlar) ve nasıl baş ettiğinden (savunma stratejileri) bağımsız olarak, “soğuk kalplilik”, duyguların baskılandığı, daha katı bir kişilik yapısına işaret etmektedir. Bu kişilik yapısına ait kişilerin suç davranışının olumsuz sonuçlarını anlamakta daha çok güçlük yaşadıkları görülmüştür.

Savunma stratejilerinin psikometrik özelliklerine bakıldığında, bulgular ölçeğin kabul edilebilir düzeyde geçerlilik değerlerine sahip olduğunu göstermektedir. “Dışsal nedenlere atfetme ve sonuçları küçümseme”ye dair stratejiler, alkol ve madde kullanım problemleriyle ve “istismar öyküsü”, “hayatının bir döneminde sokakta yaşamış olma” gibi güç yaşam deneyimleriyle ilişkili bulunmuştur. Bunun yanı sıra, “Dışsal nedenlere atfetme ve sonuçları küçümseme”ye dair stratejilerin, “Güç-Odaklı Varsayımlar”ın ilişkili olduğu bir çok değişkenle ilişki sergilediği görülmüştür. Bulgular bir arada değerlendirildiğinde, “Dışsal nedenlere atfetme ve sonuçları küçümseme”ye dair stratejiler kullanan kişilerin, bu stratejileri

bir takım yaşam olayları doğrultusunda öğrenmiş ya da normalleştirmiş olabilecekleri, olumsuz bir durumla karşılaştıklarında kaçınma stratejisine sıklıkla başvurabilecekleri ve özellikle “kontrol edememiş olma, sonuçları ön görememiş olma” ile baş etmede güçlük yaşayabilecekleri düşünülmüştür. Bir diğer savunma stratejisi olan “Mağduriyet” stratejisinin, “Dışsal nedenlere atfetme ve sonuçları küçümseme” stratejisinin ilişkili olduğu bir çok değişkenle ilişki sergilediği görülmüştür. Bunlar, özellikle kaygı durumunda ortaya çıkan “savunmacı dışavurumu” (Rottter, 1975) işaret eden değişkenlerdir. Farklı olarak ise, “Mağduriyet” stratejisini kullanan kişilerin cezaevi ortamında daha fazla stres yaşadıkları görülmüştür. Ayrıca, “Dışsal nedenlere atfetme ve sonuçları küçümseme” stratejisi ile negatif ilişkili olduğu gözlemlenen “öz-güvenin” “Mağduriyet stratejisi” ile pozitif yönde ilişkili olması dikkat çekicidir.

“Mahkumlar için Değişim Basamakları Ölçeği”nin psikometrik özelliklerine bakıldığında, bulgular ölçeğin kabul edilebilir düzeyde geçerlilik değerlerine sahip olduğunu göstermektedir. “Değişim Öncesi” alt ölçeğinin geçerlilik düzeyi görece düşüktür. Yönergenin spesifik bir davranış tanımına işaret etmemesinin bu duruma katkıda bulunmuş olabileceği düşünülmektedir. Ayrıca, katılımcılarla yapılan görüşmelerde elde edilen bilgiler doğrultusunda, mahkumların genel olarak yardım almaya istekli oldukları ancak kendilerinde değiştirilmesi gereken bir problem tanımlamadıkları görülmüştür. Bu paradoksal tablonun da alt ölçeğin geçerlilik düzeyindeki düşüklüğe neden olmuş olabileceği düşünülmektedir. Ancak bu gözlem, “rehabilitasyon çalışmaları öncesinde mahkumların duygusal ve benlik-saygısı ihtiyaçlarına yönelmesi, bu ihtiyaçlarla baş edemememin göstergesi olan savunma stratejilerinin ancak böylelikle daha adaptif bir yöne evrilebileceği” düşüncesini destekler niteliktedir. “Değişim Öncesi” basamağının, genel olarak dış-kontrol odağı, duygu-odaklı baş etme ve her iki savunma stratejisiyle pozitif ilişkili olması da bu görüşle paralellik göstermektedir.

“Değişime Hazırlık” ve “Harekete Geçme” basamakları, genel olarak pozitif duygu durum ve baş etme yollarıyla pozitif ilişki sergilemiştir. Ancak, katılımcıların bu aşamalarda bile iç-kontrol odağından kaçındıkları gözlemlenmiştir. Bu bulgu, “benlik-saygısı” ve “suç davranışı” gibi olumsuz davranış örüntülerinin ayrı ayrı ele alınması gerektiğine işaret etmektedir. Bireyler kendi davranışlarının olumsuz

sonuçlarına dair farkındalık kazanırken bunun sebebi olarak kendilerini konumlandıkları noktada benlik-saygılarına dair ciddi bir tehdit algılamaktadırlar. Suçun yeniden işlenmesini önleme programlarında bireylerin bu ihtiyaçlarına yönelinmediği taktirde geri dönüşlerle, programı erken bir aşamada bırakmalarla ve dirençlerle karşılaşılması kaçınılmazdır.

“Değişimin Korunumu” basamağı ise, literatürde farklı örneklerle yapılmış çalışmalardan farklı olarak, dış-kontrol odağı ve savunma stratejileri ile pozitif ilişki sergilemiştir. Cezaevi ortamında değişim için çaba sarfetmenin zorluklarının ve kişinin, davranışındaki değişikliklerin olumlu sonuçlarını gözlemleme imkanı olmayışının bu bulguları açıklayabileceği düşünülmektedir.

Son olarak, “Mahkumlar için Kararsal Denge Ölçeği” nin psikometrik özelliklerine bakıldığında, bulgular ölçeğin kabul edilebilir düzeyde geçerlilik değerlerine sahip olduğunu göstermektedir. Suç davranışının algılanan avantajları ve dezavantajlarına dair bilgi sağlayan bu ölçeğin, cezaevi ortamında uygulanmış olması sebebiyle, suçun işleniş anına dair bilgi vermesi beklenilmemektedir. Katılımcılar, işlemiş oldukları suçun olumsuz sonuçlarıyla karşı karşıya karşıya gelmiş olmaları sebebiyle çoğunlukla “dezavantaj” rapor etmişlerdir. Ancak, bu koşullara rağmen “suçun avantajlarının” rapor edilmesinin daha katı ve uyumu güçleştirici bir kişilik yapısıyla ilişkili olduğu görülmüştür. Bunun yanı sıra geçmiş suç öyküsü de suçun avantajlı olarak algılanmasına katkı sağlamaktadır. Suçun avantajlı olarak algılanmasının, suçu destekleyici varsayımlar ve savunma stratejileri ile de ilişkili olduğu görülmüştür. Bu bulgular bir arada değerlendirildiğinde, olumsuz kişilik özellikleri, suçu destekleyici varsayımlar ve bunları normalize eden yaşam olaylarının kişiyi bir kısır döngü içerisine soktuğu, kişinin savunma stratejilerinden faydalanarak bu döngüyü daha da içinden çıkılmaz bir hale getirdiği ve dolayısıyla belli amaçlara ulaşmak için suç işlemenin tek alternatif olarak görülebildiği düşünülmektedir. Suçun dezavantajlı olarak algılanmasının ise soğuk kalplilik ve iç kontrol odağı ile negatif korelasyon sergilemesi dikkat çekicidir. Kişinin, mahkum olduktan sonra suçun olumsuz sonuçlarıyla açık bir şekilde karşı karşıya gelmesine rağmen, soğuk kalpliliğin bu farkındalığı engelleyebileceği düşünülmektedir.

Yöntem olarak birinci çalışmayla birebir aynı olan ikinci çalışmada, suçu destekleyici varsayımların, savunma stratejilerinin, kararsal dengenin ve değişim basamaklarının hangi yapılar tarafından açıklandıklarının araştırılması amaçlanmıştır. Ayrıca, birinci çalışmada kontrol odağının suçu destekleyen varsayımlarla büyük oranda ilişki sergilemesi sebebiyle, kontrol odağının suçu destekleyen varsayımlar ve değişim basamakları arasında aracı rol üstlenebileceği düşünülmüştür. Bunun yanı sıra, savunma stratejilerinin işlevlerinin ve değişim basamakları üzerindeki etkilerinin daha iyi anlaşılabilmesi amacıyla, bu stratejilerin moderatör rol üstlendikleri bir modelin test edilmesi amaçlanmıştır.

Suçu destekleyici varsayımları açıklayan değişkenlerle ilgili bulgulara bakıldığında, demografik değişkenlerin kontrol edilmesinin ardından, Güç-Odaklı Varsayımların dış-kontrol odağının “Çabalamanın Anlamsızlığı” boyutu ile, Adaletsizlik-Odaklı Varsayımların ise dış-kontrol odağının “Adaletsiz Dünya İnancı” boyutu ile ilişkili olduğu görülmüştür. Adaletsizlik Odaklı Varsayımlara sahip kişiler, hem cezaevi sistemi içerisinde daha fazla stres yaşamakta, olumsuzlukları daha çabuk fark etmekte, hem de işledikleri suçun sonucunda karşılaştıkları bu olumsuzluklar sebebiyle suçun dezavantajlarını anlamaya da daha açıktırlar. Ancak başlarına gelen olumsuzlukları “adaletsiz dünya inancı” çerçevesinde açıkladıkları için değişime yönelik çaresizlik, umutsuzluk gibi duyguları hissetmeleri oldukça mümkündür. Öte yandan, Güç-Odaklı Varsayımlara sahip kişiler, dünyada ancak gücü ve kontrolü elinde tutan kişilerin başarılı olabileceklerine inanmakta ve kendilerini bu anlamda “doğuştan başarısız” olarak değerlendirmekte, ne kadar çabalasalar da bu başarıya ulaşamayacaklıklarını düşünmektedirler. Dolayısıyla, gücü ve kontrolü sağlama motivasyonu ile gerçekleştirilen suç davranışı, bu başarıya ulaşmanın yegane yolu olarak algılanmaktadır.

Regresyon analizleri, savunma stratejilerini de birbirinden ayırtıran bulgular ortaya koymuştur. “Dışsal nedenlere atfetme ve sonuçları küçümseme”ye dair stratejiler olumsuz değerlik ve adaletsiz dünya inancı ile ilişkiliyken “Mağduriyet” stratejisinin nörotisizm, deneyime açıklık ve çabalamanın anlamsızlığı ile ilişkili olduğu görülmüştür. Bulgular, “Dışsal nedenlere atfetme ve sonuçları küçümseme”ye dair stratejilerin öz-saygıyı arttırma işlevine sahip olabileceğini, Mağduriyet stratejisinin ise çaresizlik ve umutsuzluk duygularına işaret edebileceğini

düşündürmüştür. Mağduriyet stratejisi ile deneyime açıklık arasındaki pozitif ilişki, bu stratejiyi sık kullanan kişilerin, “mağduriyetleri” ile sonuçlanan riskli durumlara girme ihtimalinin yüksek olabileceğini düşündürmüştür. Öz-güvenin “Dışsal nedenlere atfetme ve sonuçları küçümseme”ye dair stratejilerle negatif, “Mağduriyet” stratejisi ile ise pozitif korelasyon sergilemesi dikkat çekicidir. Buna göre, kendilerine olumlu değerler atfeden bireyler davranışlarının olumsuz sonuçlarını “Mağduriyetleri” ile açıklarken, kendilerine olumsuz değerler atfeden bireyler bu olumsuz sonuçların sorumluluğunu olabildiğince kendiliğinden uzaklaştırma eğilimindedirler.

Kararsal denge faktörlerini açıklayan değişkenlerle ilgili bulgulara bakıldığında, “suçun avantajlı olarak algılanmasının” özellikle “sokakta yaşama deneyimi” ve “madde kullanım öyküsü” ile ilişkili olduğu görülmüştür. Her iki durumda da kişinin suç davranışını destekleyen bir sosyal çevre edinme ihtimalinin yüksek olduğu düşünüldüğünde, kişinin bu çevre içerisinde suçun “avantajlarını” öğrenmiş olabileceği düşünülmüştür. Bunun yanı sıra, suçun avantajlı olarak algılanmasının, “olumsuz değerlik” ve “düşük düzey uyumluluk” gibi katı bir kişilik örüntüsünü yansıtan kişilik özellikleri ile ilişkili olduğu görülmüştür. Demografik değişkenler ve kişilik özellikleri kontrol edildiğinde ise, suçun avantajlı olarak algılanması, adaletsiz dünya inancı ile pozitif korelasyon sergilemiştir. Bu bulguyu, “adaletsizlik algısı karşısında kişinin adaleti tek başına sağlama çabası içerisinde girebileceği” olarak yorumlamak mümkündür. Ancak, kontrol edilen değişkenler göz önüne alındığında, hukuk sürecinde çeşitli adaletsizliklerle karşılaşmanın, kişilere suçun avantajlarını düşündürtme ihtimali olduğu da dikkate alınmalıdır. Bu durumu tutuklu statüsündeki katılımcılardan biri şu sözlerle ifade etmiştir: “Ben masumum ve bunun bir gün ortaya çıkacağını biliyorum. Ama bugüne kadar yaşadıklarım bana suç işlemenin aslında çok kolay olduğunu ve insanın elinde bazen başka hiç bir seçeneğin kalmayabileceğini gösterdi. Buradaki insanların bir çoğunun başına gelenler benim de başıma gelseydi, ben de onlardan biri olurum”.

Kişilik özellikleri bakımından yüksek nörotisizm ve sorumluluk özellikleri sergileyen kişilerin, davranışlarının olumsuz sonuçlarını (suçun dezavantajlarını) daha çok fark etme eğiliminde oldukları görülmüştür. Suçun dezavantajlarının fark edilmesi her ne kadar “istenen” bir durum olsa da, bu kişilik özelliklerine sahip

kişilerin, farkındalıkları ile baş etmede güçlük yaşama ihtimalleri oldukça yüksektir. Dolayısıyla, “olayların kontrol edilemezliği” inancına sığınmak, davranışlarının sorumluluğunu tümüyle yüklenmekten daha kolay olacaktır. Bu noktada, etkin baş etme yöntemleri üzerine çalışmak, kişilerin karşı karşıya oldukları duygusal yüklerle daha rahat baş etmelerini ve farkındalıklarını daha sağlıklı değerlendirmelerini sağlayacaktır.

Değişim Basamakları ile ilgili regresyon analizi sonuçları, birinci çalışma bulgularıyla genel olarak paralellik sergilemiştir. Aracı-regresyon analizleri ise, kontrol odağının “suçu destekleyici varsayımlar” ve “değişim basamakları” arasındaki ilişkiyi büyük oranda açıkladığını ortaya koymuştur. Buna göre, “çabalamanın anlamsızlığı” özellikle “değişim öncesi basamak” üzerinde oldukça belirleyicidir. İç kontrol odağının ise, empatik olmayan bir tutuma sahip bireylerde değişime yönelik motivasyonu olumsuz etkileyebileceği görülmüştür.

Biçimleyici değişken analizleri bulguları, savunma stratejilerinin farklı işlevlerini ortaya koyması açısından önemlidir. Özetle, “dışsal nedenlere atfetme ve sonuçları küçümseme” stratejilerinden faydalanmanın, güç ya da adalet odaklı varsayımlara sahip olmayan kişiler için “değişime yönelik motive edici”, bu varsayımlara sahip olan kişiler içinse “motivasyonu düşürücü” olduğu görülmüştür. Bu bulgu, savunma stratejilerinin bazı koşullarda baş etme aracı, bazı koşullarda ise suçu olumlayan varsayımları destekleyici olduğuna işaret etmektedir. Öte yandan, farkındalık düzeyinin oldukça düşük olduğu ve değişime yönelik motivasyonun olmadığı durumda, kişinin savunma stratejilerinden fayda ya da zarar görmediği, ancak “adaletsizlik odaklı varsayımlardan” büyük oranda etkilendiği görülmüştür. Mahkumiyetin genellikle ilk dönemlerine denk gelen bu aşamada, kişilerin hukuksal süreçlerinde karşılaştıkları güçlükleri ele almanın fayda sağlayacağı düşünülmektedir. Bunun yanı sıra, soğuk kalpliliğin değişme motivasyonu üzerindeki olumsuz etkisi, biçimleyici değişken analizleri ile bir kez daha ortaya konmuştur. Ancak, “mağduriyet” stratejisinin, soğuk kalpliliği yüksek olan kişilerde “koruyucu” olabileceği görülmektedir. Bu bulgu, soğuk kalpliliğin “olumsuz duyguların bastırılmasına” işaret eden bir yapı olduğu görüşünü destekler niteliktedir. Bireyler, çevrelerine karşı empatik olmayan bir tutum içerisine girseler bile, kendi mağduriyet duygularına açık olmaları değişime yönelik motivasyonlarını

korumaktadır. Bu anlamda, kişilerin “davranışlarının sorumluluğunu almalarını” beklerken olumsuz duyguları ile nasıl baş ettiklerini ele almanın son derece önemli olduğu düşünülmektedir. Biçimleyici değişken analizleri son olarak savunma stratejilerinin suçu dezavantajlı olarak algılama ile nasıl etkileşim içerisine girdiğini ortaya koymuştur. Buna göre, suçun dezavantajlarına açık olmayan kişiler için özellikle “mağduriyet” stratejisi, değişime yönelik motivasyona olumlu katkı sağlamaktadır.

Üçüncü çalışma, genç mahkum örneklemeyle yürütülmüştür. Çalışmaya, yaşları 14 ve 17 arasında değişen 52 erkek genç mahkum katılmıştır. Anket çalışmasının öncesinde, sosyo-demografik bilgilerin elde edilmesi amacıyla yapılandırılmış bir görüşme uygulanmıştır. Bu görüşme doğrultusunda katılımcıların eğitim durumlarına, cezaevine girmeden önceki yaşantılarına, çalışma ve askerlik durumlarına, ailelerinin genel özelliklerine ve erken çocukluk dönemi yaşantılarına, genel sağlık durumlarına ve suç öykülerine dair bilgiler elde edilmiştir. Çalışma anında katılımcıların %96’sı “tutuklu”, %1.9’u “hükümlü”, %1.9’u ise “hükmen tutuklu” statüsünde bulduklarını belirtmişlerdir. Katılımcıların kendi beyanlarına göre, %34.6’sı “mala yönelik”, %30.8’i “cana yönelik”, %1.9’u “yasa dışı madde kullanımı/satılması ile ilgili”, %7.7’si ise “cinsel” suçtan ötürü cezaevinde bulunmaktadır. Katılımcıların %33.7’si, cezaevinde bulunmalarına neden olan suç davranışını belirtmek istememiştir. Çalışma esnasında sadece katılımcıların sağladıkları bilgiler alınmış, herhangi bir dosya ya da ikinci şahıs bilgisinden faydalanılmamıştır.

Üçüncü çalışmada, birinci ve ikinci çalışmada yetişkin örneklemlerinde elde edilen bulguların genç mahkum örnekleminde farklılaşıp farklılaşmadığı araştırılmıştır. Buna paralel olarak, katılımcılara, “Suçu Destekleyen Düşünceler Ölçeği”, “Değişim Basamakları Ölçeği”, “Kararsal Denge Ölçeği”, “Rosenberg Öz-Güven Ölçeği”, “Kontrol Odağı Ölçeği”, “Temel Kişilik Özellikleri Ölçeği” ve “Pozitif ve Negatif Duygular Ölçeği”nden oluşan bir ölçek paketi sunulmuştur. Ayrıca, literatürde “öfke kontrolü eksikliğinin” gençlerin suç davranışı ile sıklıkla ilişkilendirilmesi sebebiyle, “Sürekli Öfke-Öfke İfade Tarzı Ölçeği”nden faydalanılmıştır.

Genç mahkumlar örnekleminde katılımcı sayısının sınırlılığı sebebiyle regresyon ve aracı/biçimleyici değişken analizleri uygulanamamıştır. Ancak, korelasyon ve varyans analizi bulguları, genellikle birinci çalışma bulgularıyla paralellik göstermektedir. Bu sonuçtan hareketle, her ne kadar yetişkin ve gençlerin farklı özelliklere sahip olsalar da altta yatan psikolojik mekanizmaların benzerlik sergilediğinden söz etmek mümkündür. Öte yandan, genç mahkumlar örnekleminde ön plana çıkan bir takım farklılıklara da değinmekte fayda vardır. Bu farklılıkların başında, “suçu destekleyen varsayımların” gençlerde yetişkinlere göre daha “esnek” olduğu, adaptif kişilik özellikleri ve baş etme becerileriyle daha ilişkili olduğu gelmektedir. “Adaletsizlik odaklı varsayımların” ise gençlerde, yetişkinlerde olduğu gibi “yapılanmış” olmaması özellikle dikkat çekicidir. Bu noktadan hareketle, gençlerin, suçla ilgili yaşantılarını anlamlandırmakta daha çok zorlandıklarını, olumsuz duyguları ile baş etmede daha az kaynaktan faydalandıkları ve yardım ihtiyaçlarını daha açık bir şekilde belirttiklerini söylemek mümkündür. Gençlerin, bu süreci adaptif bir biçimde anlamlandırmalarına yardımcı olmak, suçu destekleyen varsayımların öğrenilmemesi ve yerleşmemesi bakımından son derece büyük bir öneme sahiptir. Bir diğer dikkat çekici bulgu, “güç odaklı varsayımlara yönelik yatkınlığın”, gençlerde “sürekli öfke ve öfke dışı vurumu” ile ilişkili olmasıdır. Güçlü olmanın, özellikle genç erkeklerin sosyal gelişiminde “adam olma, erkek olma” ile ilişkilendirilmesinin, ancak gençlerin günlük yaşam pratikleri içerisinde bu “güçlü olma beklentisini” prososyal yollardan gerçekleştirme fırsatlarının kısıtlı olmasının, gençlerin suça yönelmesinde etki sağlayacağı düşünülmektedir. Başka bir ifadeyle, toplum içerisinde erkeklerin varoluşlarının “fiziksel ve maddi gücü ellerinde tutmaları” ve “hayatları üzerinde kontrol sahibi olmaları” olarak tanımlanması, bu tanımlamaların karşılığı olan davranışların büyük oranda destek görmesi, çeşitli sebeplerden ötürü bu tanımlamalara erişme fırsatları olmayan gençlerin bunu “suç ve şiddet” davranışlarına başvurarak gerçekleştirmelerine katkı sağlamaktadır. Gençlerin sürekli öfke ve öfke dışı vurumlarının altında yatan “güç gösterme” motivasyonu, bu bakımdan dikkatli bir biçimde irdelenmelidir. Bu noktada, toplumsal beklentiye ve gencin “çaresizlik” duygularına değinmeyen ve sadece “öfke dışı vurumunu değiştirmeyi” hedef alan programların fayda sağlayamayacağı düşünülmektedir. Öte yandan, özellikle erkekler arasında “güçlü ve

kontrol sahibi olmaya” dair beklentilerin toplumsal olarak değiştirilmesine ve gençlerin “otonomi” ihtiyaçlarını daha prososyal araçlarla deneyimlemelerine fırsat sağlamaya yönelik politikaların geliştirilmesi gerektiği açıktır. Benzer şekilde, “öfke kontrolünün” de hem savunma stratejileri ve değişim öncesi basamakla, hem de değişime yönelik motivasyonla ilişkili olduğu görülmüştür. İlk bakışta çelişkili gibi görünen bu bulgunun, gençlerin yaşantılarını anlamlandırmakta yaşadıkları güçlüğü ve yardım ihtiyaçlarına işaret ettiği düşünülmektedir.

Dördüncü ve son çalışmada, yetişkin ve genç mahkum örneklemelerinden elde edilen veriler birleştirilerek analiz edilmiştir. Toplamda 252 kişiye ulaşan örneklemede 14-17 yaş aralığındaki 52 kişi “ergenlik”, 18-31 yaş aralığındaki 96 kişi “genç yetişkinlik”, 32-66 yaş aralığındaki 102 kişi ise “yetişkinlik” dönemini temsil etmiştir. Bulgular, ergenlik dönemindeki bireylerin daha fazla iç kontrol odağına sahip olduklarına ve olumsuz değerliklerinin daha yüksek olduğuna işaret etmektedir. Öte yandan “genç yetişkin” ve “yetişkinlerin” ergenlere göre daha fazla savunma stratejisi sergiliyor olmaları, savunma stratejilerinin “sonradan, deneyim yoluyla öğrenebilir” olabileceklerini düşündürmüştür. Bunun yanı sıra, ergenlerin deneyimlerini değerlendirirken henüz “dış kontrol odağına” başvurmuyor olmaları, ancak olumsuz değerliklerinin ön planda olması, bu dönemdeki gençlerin deneyimlerini anlamlandırmaya yönelik duydukları ihtiyacı belirgin bir biçimde gözler önüne sermektedir. “Genç yetişkinlerin” diğer yaş gruplarına kıyasla ön plana çıkan özelliklerine bakıldığında “güç-odaklı varsayımların” bu yaş grubu için önemi ortaya çıkmaktadır. Genç yetişkinlik dönemi, bilindiği üzere, başarı motivasyonunun oldukça yüksek olduğu ve ergenlikle yetişkinlik arasında kişilerin “toplum içerisindeki yerlerini belirledikleri” bir dönemdir. Genç yetişkinlik döneminin ihtiyaçları gözetildiğinde, “güçlü olma/başarılı olma”nın bu dönemdeki bireyler için ne kadar kritik olduğu anlaşılmaktadır. Ancak, bu motivasyonların suç davranışına yönelmesi, rehabilitasyon programlarında mutlaka ele alınmalıdır. Bu anlamda, bireyin motivasyonu ele alınırken ihtiyaçlarını gerçekleştirmek için neden suça başvurduğu anlaşılmalı ve bu iki durum arasındaki ilişki, farkındalık kazandırma amacıyla bireyle paylaşılmalıdır. Yetişkinlerin ise diğer yaş gruplarına göre “suçun dezavantajlarının daha çok farkında oldukları” görülmüştür. Yaşla birlikte gelişen

sorumluluk duygusunun ve aile kurma, çocuk sahibi olma gibi yaşantıların bu duruma eşlik ettiği düşünülmektedir.

Çalışmalardan elde edilen bulgular bir arada değerlendirilecek olunursa, öncelikle “suçu destekleyen varsayımlar” ve “savunma stratejilerinin” ayrı ayrı değerlendirilmesi gerekliliğini vurgulamak önemlidir. Suçu destekleyen varsayımlar genel olarak daha yerleşik, önceden öğrenilmiş bilişsel yapılara işaret ederken “savunma stratejileri” sonradan geliştirilen, görece daha esnek ve gelir-geçer, kişinin benlik saygısını arttırmaya yönelik, ancak kimi durumlarda “suçu destekleyen varsayımları” doğrulayabilen bilişsel yapılardır. Bu anlamda “suçu destekleyen varsayımlar”, bireylerin “güçlü olma”, “adaletli bir dünya içinde yaşama” ve “başkalarına güvenebilme” gibi ihtiyaçlarına işaret ederken “savunma stratejileri”, “benlik saygısını onarma” ve “negatif duygularla baş etme” ihtiyaçlarına işaret etmektedir. Rehabilitasyon çalışmaları öncesinde benlik saygısını onarmaya ve negatif duygularla baş etmeyi kolaylaştırmaya yönelik çalışmalar yapılmasının, değişime yönelik motivasyonu arttıracakı düşünülmektedir. Bu çalışmalarda, bireylerin “çabalamanın anlamsızlığına olan inançlarının”, önceki değişim çabalarının ve cezaevine girmeye birlikte gerçekleşen kayıplarının ele alınması oldukça önemlidir.

Soğuk kalplilik ise, iç kontrol odağının artırılmasının (bireyin, davranışlarının sorumluluğunu almasının) her zaman faydalı olmayabileceğine, hatta “duyguların bastırılması” durumunda daha bile zararlı olabileceğine işaret etmektedir. Benzer varsayımı, gençlerde “öfke kontrolü” için de söylemek mümkündür. Bu bulgulardan hareketle, rehabilitasyon çalışmalarında sadece “sonuca” odaklanılmaması, “sorumluluk alma” ve “öfke kontrolünün” her zaman başarı olarak kabul edilmemesi, bireyin negatif duygularının mutlaka ele alınması ve “duyguların bastırılmasının” önüne geçilmesi önerilmektedir. Bu esnada pozitif duyguları arttırıcı stratejilerden yararlanmak ve “umudu arttırmak”, kişiyi değişime yönelik motive etmede faydalı olacaktır. Bunu yaparken kişinin yaşantısıyla uyumlu olmayan “umut verici” önerilerde bulunmaktansa, kişiye anlaşıldığını hissettirmek ve “umutsuzluk” duygusunun nedenlerini araştırmak gerekmektedir.

Literatürle paralel olarak, sorumluluk duygusunun değişime yönelik motivasyon üzerinde olumlu katkı sağladığı görülmüştür. Bu bulgudan hareketle,

kişinin sorumluluk duygusunu arttıracak fırsatlar yaratmanın, gerekirse kişinin yakınları ile iş birliği kurmanın önemli olduğu düşünülmektedir. Unutulmamalıdır ki, suç davranışının olumsuz sonuçlarıyla karşı karşıya gelmek her zaman caydırıcı olmamaktadır. Bu durumlar zaten yaygın olarak bilinmekte ve kabul görmektedir. Ancak, kişinin “yeniden suç işlememesi” için, suç işlememenin onun için kısa vadede avantajlı olarak algılanması gerekmektedir. Bu sayede “suçun olmadığı bir hayat” kişi için anlamlı bir hale gelebilmektedir.

Bireyler, “değişim için ellerinden gelen her şeyi yaptıklarını” düşündüklerinde bile değişimin olumlu sonuçlarını cezaevi ortamında deneyimlemekte güçlük yaşamaktadırlar. Bu onların “umutsuzluk” duygusuyla baş başa kalmalarına ve çoğu zaman daha önceki değişim basamaklarına geri dönüş yaşamalarına neden olmaktadır. Son yıllarda yapılan çalışmalar, değişim sürecine giren kişilerin, olumlu deneyimlerini bu sürece yeni katılan daha genç bireylere aktarmalarının terapötik etkisine dikkat çekmektedir. Bu sayede, hem değişimin olumlu sonuçlarının yaşanması için bir fırsat yaratılmakta, hem de bu sürece yeni katılan kişinin “çabalamanın anlamsızlığı” düşüncesiyle baş etmesi kolaylaştırılmaktadır. Bireylerin öznel yaşantılarını dikkate alan ve onlara, kendilerini “anlaşılmış” hissettirirken aynı zamanda değişimleri için aktif olarak uğraşmalarını kolaylaştıran böyle bir mentörlük sisteminin hayata geçirilmesi, rehabilitasyon çalışmalarının etkililiğini önemli oranda arttıracaktır.

Çalışma bulguları, bir takım politika değişikliklerinin de gerekliliğine işaret etmektedir. Bunların başında, “suça” ve “suçluya” yönelik yerleşik bakış açımızı sorgulamaya yönelik stratejiler yer almaktadır. Daha önce de vurgulandığı gibi, ceza sistemi, cezaların arttırılması ve kişiyi “işlediği suçun olumsuz sonuçları” ile baş başa bırakmaya yönelik uygulamalar, yaygın kanının aksine “faydalı” olmayabilmekte, hatta kimi durumlarda “suçı destekleyen varsayımların doğrulanması, yerleşmesi” ve “olumsuz duyguları ile baş edemeyen kişinin savunma stratejilerine baş vurma” açısından “kriminojenik” olabilmektedir. Bu bulgu, özellikle gençlerde daha belirgindir. Olumsuz yaşantılarını anlamlandırmakta güçlük yaşayan genç bireyler, suçu destekleyici varsayımları ve savunma stratejilerini cezaevi deneyimleri esnasında öğrenebilmektedirler. Suçun yeniden işlenmesine yönelik çalışmaların sadece rehabilitasyon programları ile sınırlı kalmaması, ceza

infaz sisteminin bu amaca göre yeniden düzenlenmesi gerekmektedir. Daha büyük ölçekte ise, bireylerin kendilerini “güvende” ve “adaletli bir düzen içerisinde” hissedebilecekleri, sosyal adaleti ön plana çıkartan toplumsal uygulamaların hayata geçirilmesi son dörece önemlidir. Aksi halde, ceza infaz sistemlerinin bu değişimleri tek başına gerçekleştirmesi oldukça büyük bir beklenti olacaktır.

Bir diğer politika değişikliği önerisi ise gençlerin (ergenler ve genç yetişkinler) toplum içerisindeki dezavantajlı konumuna ilişkindir. “Güçlü olmanın” bu dönem için ne kadar kritik olduğu düşünüldüğünde, gençlerin “otonomilerini” daha prososyal yöntemlerle gerçekleştirecekleri fırsatların yaratılması oldukça önemlidir. Ancak, her şeyin “yetişkinler” üzerine kurgulandığı bir sistem içerisinde gençlerin kendilerini “var edebilmelerini” beklemek, bu amaçla yürütülen çalışmalarını olumsuz yönde etkilemeye devam edecektir. Bu nedenle, toplumsal sistemin inşa edilmesi üzerine yürütülen politikalarda “çocuk” ve “gençlik” merkezli stratejilerle hareket etmek, daha büyük ölçekte fayda sağlayacak, çalışmaların etkilerinin kalıcı olmasına yol açacaktır.

Bu çalışma, suç ile ilişkili bilişsel yapıların ayrı ayrı ele alındığı ve birbirleriyle ilişkilerinin bütüncül bir sistem içerisinde incelendiği ilk çalışma olması açısından oldukça güçlüdür. Bulguların farklı yaş grupları ile test edilmesi de çalışmanın gücünü destekler niteliktedir. Ayrıca, Türkiye adli psikoloji literatürüne vaka formülasyonu, müdahale planı ve üç değerlendirme aracı kazandırması bakımından da çalışmanın önemli olduğu düşünülmektedir. Ancak, sonraki çalışmalarda dikkate alınması gereken bir takım sınırlılıklar söz konusudur. Öncelikle, “suçu destekleyen düşünceler” ölçeği, “varsayımlar” ve “savunma stratejilerini” ölçme amacıyla geliştirilmiş bir ölçek değildir. Bu nedenle, geçerlik ve güvenilirlik bakımından bazı sınırlılıklar içermektedir. “Varsayımlar” ve “savunma stratejilerinin” ayrı ayrı değerlendirileceği, muhtemel diğer bilişsel yapıların da ekleneceği yeni bir ölçüm aracının geliştirilmesi zorunludur. Buna ek olarak, özellikle genç mahkumlar örneğinde katılımcı sayısı oldukça azdır. Elde edilen bulguların, daha fazla katılımcının yer aldığı bir genç mahkum örneğinde yeniden test edilmesi gerekmektedir.

Bu çalışma, sadece erkek mahkumlarla yürütülmüştür. Bu nedenle, elde edilen bulguların kadınlar için genelleştirilmesinden kaçınılması gerekmektedir. Her

ne kadar kadınlar için de “suçu destekleyen varsayımlar” ve “savunma stratejilerinin” varlığından söz etmek mümkün olsa da, bu bilişsel yapıların içeriğinin büyük oranda farklılaşacağı düşünülmektedir. Özellikle “güç odaklı varsayımlar”, tezin giriş kısmında da vurgulandığı üzere, “maskülinite”nin toplum içerisinde desteklenmesi ile yakından ilişkilidir. Bu nedenle, benzer varsayımlara kadınlarda daha az rastlanılacağı düşünülmektedir. Ancak, “otonominin” genel bir psikolojik ihtiyaç olduğu düşünüldüğünde, kadınların, “erkekler dünyası” içerisinde var olma çabalarının “suçu destekleyen varsayımlarına” yansıtacağı düşünülmektedir. Kadınların işledikleri suçların altta yatan nedenlerini araştıran bir çok çalışma, bu düşünceyi destekler nitelikte bulgular öne sürmüştür.

Son olarak, bu çalışma “genel suç davranışı” ile ilişkili bilişsel yapıların araştırılmasını amaçlamıştır. Belli suç türlerine göre, bu bilişsel yapıların farklılık sergileyebileceği düşünülmektedir. Nitekim cinsel suç üzerine yapılan çalışmalar, sadece bu suç türü ile ilişkilendirilebilecek bilişsel yapıları büyük oranda ortaya koymuştur. Yine de, bu çalışmada konu edinilen bilişsel yapıların, suç davranışının temel dinamiklerini açıklamak bakımından önemli olduğu düşünülmektedir. Belli bir suç türü ile ilgilenen çalışmacıların, bu çalışmada vurgulanan bilişsel yapıları da “bir üst yapı” olarak değerlendirmesi, bulguların açıklanabilirliğini arttıracaktır.

APPENDIX P
TEZ FOTOKOPİSİ İZİN FORMU

ENSTİTÜ

Fen Bilimleri Enstitüsü

Sosyal Bilimler Enstitüsü

Uygulamalı Matematik Enstitüsü

Enformatik Enstitüsü

Deniz Bilimleri Enstitüsü

YAZARIN

Soyadı : Öncül

Adı : Öznur

Bölümü : Psikoloji

TEZİN ADI (İngilizce) : Investigating Cognitive Mechanisms of Offending among Adult and Juvenile Male Prisoners: Suggestions for Intervention

TEZİN TÜRÜ : Yüksek Lisans

Doktora

1. Tezimin tamamından kaynak gösterilmek şartıyla fotokopi alınabilir.

2. Tezimin içindekiler sayfası, özet, indeks sayfalarından ve/veya bir bölümünden kaynak gösterilmek şartıyla fotokopi alınabilir.

3. Tezimden bir bir (1) yıl süreyle fotokopi alınamaz.

TEZİN KÜTÜPHANEYE TESLİM TARİHİ: