

**ASSOCIATION BETWEEN DARK TRAITS AND CRIMINAL COGNITION  
AMONG UNIVERSITY STUDENTS: ROLE OF MORAL DISENGAGEMENT  
AND EMOTION RECOGNITION**

**BY**

**MARIAM KHAN**



**NATIONAL UNIVERSITY OF MODERN LANGUAGES**

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AND EMOTION RECOGNITION**

By

**Mariam Khan**

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**NATIONAL UNIVERSITY OF MODERN LANGUAGES      FACULTY  
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**Thesis Title: Association between Dark Traits and Criminal Cognition among University Students: Role of Moral Disengagement and Emotion Recognition**

**Submitted by:** Mariam Khan

**Registration #:** 1833 MPhil/PSY/F19

Master of Philosophy  
Degree name in full

Psychology  
Name of Discipline

Dr. Asia Mushtaq  
Name of Research  
Supervisor

\_\_\_\_\_  
Signature of Research Supervisor

Prof. Dr. Khalid Sultan  
Name of Dean (FES)

\_\_\_\_\_  
Signature of Dean (FSS)

Brig Syed Nadir Ali  
Name of Director General

\_\_\_\_\_  
Signature of Director General

\_\_\_\_\_  
Date

**AUTHOR'S DECLARATION**

I Mariam Khan

Daughter of Imtiaz Ahmed Khan

Registration # 1833 MPhil/PSY/F19

Discipline Psychology

Candidate of **Master of Philosophy** at the National University of Modern Languages does hereby declare that the thesis "**Association between Dark Traits and Criminal Cognition among University Students: Role of Moral Disengagement and Emotion Recognition**" submitted by me in partial fulfillment of my MPhil degree, is my original work, and has not been submitted or published earlier. I also solemnly declare that it shall not, in the future, be submitted by me for obtaining any other degree from this or any other university or institution.

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## **ABSTRACT**

The present study is conceptualized to explore the associations between dark traits and criminal cognition with emphasis to investigate the mediating role of moral disengagement and moderating role of emotion recognition in university students. The sample comprised 452 university students from the different universities of Islamabad and Rawalpindi with an age range from 18-24 years. To measure the study variables, Urdu-translated versions were used. The research was conducted by using The Short Dark Tetrad (SD4; Paulhus, 2020), Criminogenic Thinking Profile (CTP; Mitchell & Tafrate, 2011), Moral Disengagement scale (Caprara, Pastorelli & Bandura, 1995) and Reading the Mind in the Eye test (RMET; Baron-Cohen, 2001). The results show a significant association between study variables. Moral disengagement emerged as a significant mediating factor and emotional recognition appeared as the moderating factor among university students. Results support the previous studies and future implications and limitations are discussed in the end. This research is of immense significance for counselors, policymakers, and professionals. The study highlighted the importance of psychosocial interventions.

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**LIST OF ABBREVIATIONS**

CTP	Criminogenic Thinking Profile
MDS	Moral Disengagement Scale
RMET	Reading the Mind in the Eye Test

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**DEDICATION**

This thesis is dedicated to my Parents for their love, endless support,  
and encouragement. Without them I am nothing.

## CHAPTER 1

### INTRODUCTION

Whenever we examine persons around us, one of the initial things that probably strike us is how unique people are from one another. Few people are unusually talkative, while some are very silent. Few people are energetic, while some are lazy slobs. There is little pressure separated, and others seldom appear frightened. When we use adjectives like "gregarious," "composed," "energetic," or "agitated" to describe individuals around us, we are referring to an individual's personality and the distinctive ways that people differ from one another. The human personality may be a mind-boggling and wonderful phenomenon, ranging from weird and thoughtful to dispersed and solid. Personality refers to an individual's undeniable ways of thinking, feeling, and proceeding. It causes a mixture of typical ways and inclinations similar to regular components and experiences. Even though personality can change throughout time, one's middle character traits are frequently quite predictable during adulthood. Although there are other approaches to considering people's personalities, Gordon Allport and other "personologists" believed that we may best understand the distinctions between persons by examining their personality traits. Character traits are important judgments that people compare (Deary, Matthews, & Whiteman, 2003).

Some of the most important questions in personality thinking study are why people develop their personalities and how much their personalities change over time. Innate qualities influence personality attributes to some extent, although diverse impacts have an impact. A variety of personality hypotheses have been presented to explain what personality is and why individuals become what they are, with a couple emphasizing more firmly than others on predicted non-hereditary components, such as an individual taking up underutilized social roles such as friend or parent. Regardless of its everyday strength, personality can change throughout time, possibly to a great extent all through an individual's life. The

investigation indicates that as people cultivate more preparedness, they will frequently find signals of an increasing turn of events (including, for the event, prolonged social affectability) in their character test scores. It is certainly feasible to actively shift one's personality ideas by making a repeated attempt to act unexpectedly. Personality involves individual variances in thinking, emotion, and continuous plans. The study of personality focuses on two broad areas: the first is determining an individual's variations in unambiguous personality traits, such as friendliness or irritation. The other understanding is to show the diverse parts of a unique come together as a whole.

### **1.1 Rationale of the Study**

Understanding personality may assist anticipate how individuals will react to certain situations and what they enjoy and value. Personality is a wide topic that encompasses practically every facet of what makes people unique. Some persons have personality traits that might make dealing with them challenging. Recent studies have acknowledged that examining the dark side of the personality is just as significant as examining the brighter side of the personality (Schyns, 2015). Dark traits are those that are commonly connected with unpleasant human conduct. This conduct can be harmful to others as well. According to some psychologists, everyone has a shadow personality. According to Zweig and Abrams (1991), every individual creates a personal shadow. This personal shadow is a complementing component of the unconscious that exhibits qualities that the conscious personality does not want to admit. Instead, the conscious personality ignores, forgets, and conceals these tendencies, only for them to resurface in awkward interactions with others (Mphande-Finn, 2016). So that it is important to highlight these traits so that their consequences can be predicted and different interventions can be planned to manage the outcomes of these traits and their conduct. Dark traits are ideal substitutes for personality traits related to understanding why people commit crimes (Lyons, 2019) so this study was designed to



investigate the association between dark traits and criminal cognition among university students. When students enter a learning environment, they bring their unique personalities and behaviors with them, which an educator respects and engages with throughout the learning process. Students may have dysfunctional interpersonal dispositions such as dark side personality traits, which are socially unacceptable characteristics that have been found to predict career derailment across a wide range of organizations, levels, and positions (Dalal & Nolan, 2009). Hogan and Hogan (2001) found that dark-side personality characteristics coexist with functional interpersonal qualities such as talent, ambition, and high social skills in their study. Educators benefit from recognizing dark side tendencies such as compulsiveness, passive-aggression, narcissism, and other personality disorders when students present with them. According to Bohart (2013), Freud, Rollo May, and others felt that to progress, people needed to confront their dark sides deliberately (Mphande-Finn, 2016).

During recent decades mental health issues increased to an alarming state in Pakistan. Nonetheless, more traumatic event exposure is known to be connected with a higher frequency of severe mental disorders (Khalily, 2011). Generally, the psychological health of many individuals is harmed due to the constant violence and threat to life (Marzuk, P. M., 1996). The frequency of crimes perpetrated by Pakistanis has grown, including robbery, auto theft, stealing expensive objects, rapes, gang rapes, and mass killings. According to reports, 1,672 women were slain in 2010, with 539 another 179 were raped and then murdered; and 133 were gang-raped (Assadi, 2011) i.e Noor Muqaddam case. According to research, the most common crimes in Pakistan are auto theft and mobile phone snatching. The majority of these crimes are committed by young, illiterate people aged 16 to 24. The majority of adolescent offenders turn into recidivists and hardened criminals ("Youth in Crisis," 2007). According to Daniel (2010), practically all psychopaths end up in difficulty with the law due

to their impulsiveness and exaggerated sense. Crimes include murders, fraud, forgeries, and theft are some of the acts conducted by psychopaths. Copley (2008) explained different criminal acts of psychopaths such as they don't have any fear of punishment, stealing, having sex, drugs, and being nasty to animals and other children (Dil & Kazmi, 2016). To control these conducts it is the peak time to highlight the importance of mental health awareness so that these traumatizing events can be controlled.

The objective of the study is to find out the relationship between all four dark personality traits with criminal cognition and to find out the mediating role of moral disengagement in this relationship as individuals judge their actions according to their standards. Moral thought and development have been essential to psychological development theories (e.g., Freud, Piaget, Kohlberg). Moral standards are formed through socialization and serve as guidance for behavior. People in a self-regulatory process monitor and assess their conduct and its underlying conditions in light of their moral standards. The repercussions that people expect from their actions then govern their behavior. As a result, it is to be assumed that people will avoid engaging in ways that contradict their moral values and hence have negative effects on society. Facial expressions can display personal emotions and indicate an individual's intentions within a social situation. The key common component among the dark triad qualities has been identified as an impairment in emotional experience (Amiri & Behnezhad, 2017). Emotion recognition can alter the consequences of thoughts and behavior so exploring the moderating role of emotion recognition is also the aim of the current study.

## **1.2 Statement of the Problem**

To explore the association between dark traits and criminal cognition and to investigate the mediating role of moral disengagement and moderating role of emotion recognition among university students.

### **1.3 Research Objectives**

The objectives of this research include:

1. To explore the relationship between dark traits, criminal cognition, moral disengagement, and emotion recognition among university students.
2. To explore the predictive role of dark traits on criminal cognition, and moral disengagement, among university students.
3. To determine the mediating role of moral disengagement between dark traits and criminal cognition among university students.
4. To determine the moderating role of emotion recognition between dark traits and criminal cognition among university students.
5. To explore the group differences of demographic variable (i.e., gender) on dark personality traits, criminal cognition, moral disengagement, and emotion recognition among university students.

### **1.4 Research Questions**

1. How do personality traits impact cognitions and behaviors?
2. How do dark traits and criminal cognitions are associated?
3. What would be the impact of moral disengagement on an individual if he/she has dark traits in association with criminal cognitions?
4. How emotion recognition ability does impact an individual's criminal cognition if he/she has any of the dark traits?

### **1.5 Null Hypotheses**

The null hypotheses of the present research are

1. There is no relationship between dark traits (i.e., narcissism, psychopathic, Machiavellianism, and sadism traits), criminal cognition, moral disengagement, and emotional recognition among university students.

2. Dark traits (i.e., narcissism, psychopathic, Machiavellianism, and sadism traits) are not a predictor of criminal cognition and moral disengagement among university students.
3. Moral disengagement does not mediate the relationship between dark traits (i.e., narcissism, psychopathic, Machiavellianism, and sadism traits) and criminal cognition among university students.
4. Emotion recognition does not moderate the relationship between dark traits (i.e., narcissism, psychopathic, Machiavellianism, and sadism traits) and criminal cognition among university students.
5. There is no gender difference among university students on dark traits and criminal cognition, moral disengagement, and emotion recognition.

In association with above mentioned null hypotheses following research hypotheses are formulated for the current study.

- 1 There is a positive relationship between dark traits (i.e., narcissism, psychopathic, Machiavellianism, and sadism traits), criminal cognition, and moral disengagement among university students.
- 2 There is a negative relationship between dark traits (i.e., narcissism, psychopathic, Machiavellianism, and sadism traits) and emotion recognition among university students.
- 3 Dark traits (i.e., narcissism, psychopathic, Machiavellianism, and sadism traits) are positive predictors of criminal cognition and moral disengagement among university students.
- 4 Moral disengagement mediates the relationship between dark traits (i.e., narcissism, psychopathic, Machiavellianism, and sadism traits) and criminal cognition among university students.
- 5 Emotion recognition moderates the relationship between dark traits (i.e., narcissism, psychopathic, Machiavellianism, and sadism traits) and criminal cognition among

university students.

6 Males are more likely to have dark traits and criminal cognition than females.

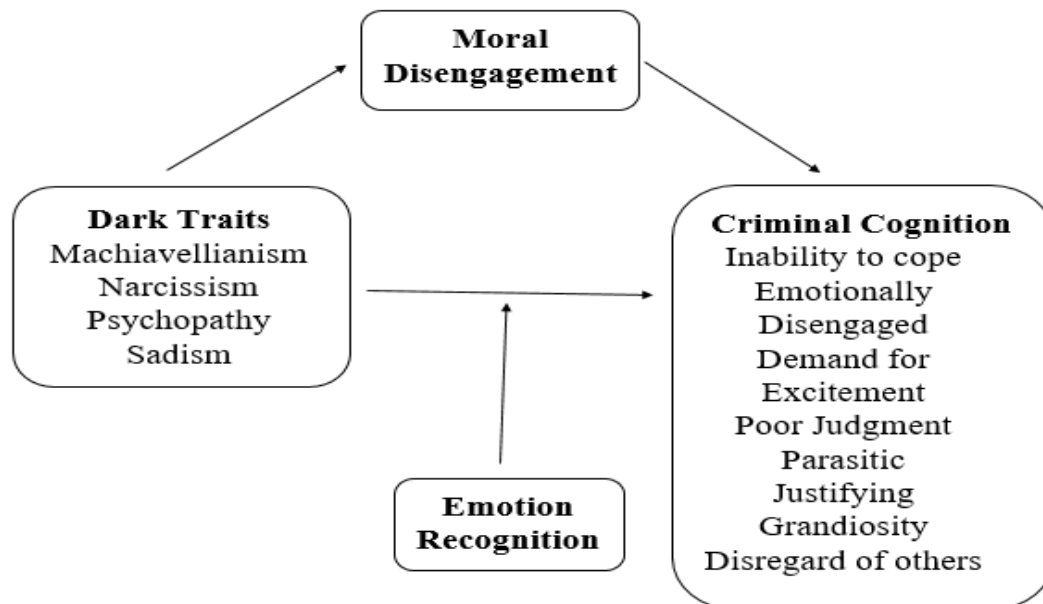
7 Females are more likely to have better emotion recognition than males.

### **1.6 Conceptual Framework**

In light of the available literature, the following model as shown in Figure 1 was created for the current study. The model shows the association between dark traits as predicting variable and criminal cognition as an outcome variable. The Dark Triad is an ideal substitute for personality traits related to understanding why people commit crimes (Lyons, 2019). The triad's hostile, narcissistic core fosters participation in a wide range of antisocial and criminal practices. Psychopathy is the most sinister of the three traits, with persistent relationships with criminality in imprisonment, community, and student populations (Lyons, 2019). Morality is a primary reason why most people refrain from doing significant illegal acts. Morality protects persons from criminal behavior in part because of the bad emotional emotions associated with executing behavioral violations (Rebellion, Piquero & Tibbetts, 2010; Tangney, Hafez & Stuewig, 2011, Tibbetts, 2003).

Depending on the societal setting, individuals might disconnect from morality. This research also aims to explore the mediation by moral disengagement association between dark traits and criminal cognition. Moral disengagement enables individuals to participate in such self-beneficial activities that contradict moral ideals while avoiding obstructive self-judgment feelings such as delinquency, humiliation, or guilt. Individuals who exhibit higher degrees of moral disengagement are more prone to participate in antisocial behavior (DeLisi et al., 2014). As it inhibits psychopathic persons from empathically responding to others, emotional incapacity is closely related to moral disengagement. Dismissive or self-conscious feelings, such as remorse or shame, require an emotional connection to others to be triggered (Blackburn, 2006). The key common component among the dark triad qualities has been

identified as impairment in feeling (Amiri & Behnezhad, 2017). Another goal of this study was to investigate the moderating role of emotion recognition in the association between dark traits and criminal emotional experience because it has been suggested that dark features lack empathy and cognition.



*Figure 1.1.* Figure showing the conceptual model of the current study. The association between Dark Traits and Criminal Cognition among University Students: Role of Moral Disengagement and Emotion Recognition.

## 1.7 Operational Definitions

### Dark Traits

Dark traits are the constellation of socially offensive personality characteristics described in terms of narcissism, Machiavellianism, psychopathy, and sadism (Paulhus, 2013). In the present study, dark traits are operationally defined as the scores on Short Dark Tetrad (Paulhus & Williams, 2020). This scale comprises four sub-scales: (a) narcissism, (b) Machiavellianism, (c) psychopathy, and (d) sadism. A high score on each sub-scale indicates the presence of particular dark traits of personality.

### **Criminal Cognition**

Thinking patterns that show poor conflict resolution, the rush of excitement, selfishness and victimization, and a reluctance to emotionally relate to people are more related to an antisocial, aggressive, and unsteady lifestyle (Mitchel & Tafrate, 2011). In the current study, dark traits are operationally defined as the scores on the Criminogenic thinking profile. It comprises eight subscales. A high score on the scale and each sub-scale will indicate a higher level of criminal cognition and a low score will indicate a low level of criminal cognition.

### **Moral Disengagement**

Moral disengagement is considered a process in which an individual convinces himself/herself that ethical standards do not apply to him or within a particular situation or context (Bandura, 1999). In the present study, moral disengagement is operationally defined as the scores on Moral Disengagement Scale. High scores on scale or sub-scales show a higher level of moral disengagement and a low score indicates a lower level of moral disengagement.

### **Emotion Recognition**

Emotion recognition is typically based on the observation of images with affective content, including facial expressions. (Dores, 2020). The ability to exhibit recognizable emotional expressions strongly impacts the resulting social interaction (Mavridis, 2015). It is measured by using the Reading the Mind in the Eye test (Simon Baron-Cohen, 2001). A high score on it will indicate a higher tendency of emotion recognition through facial expressions among individuals.

## Chapter 2

### REVIEW OF THE RELATED LITERATURE

#### 2.1 Dark Personality Traits-Theoretical Explanation

##### **The Dark Tetrad: Psychopathy, Machiavellianism, Narcissism, and Sadism**

As several situations vividly demonstrate, a few persons exhibit a constant design of the vengeful manner of acting. Subclinical proclivities towards such behavior are included in features gathered together in the frame of dark qualities (Paulhus, 2014). Recently, there has not been a clear increase in the number of dark traits indicated (Muris et al., 2017), but there has been a significant increase in the number of dark traits recommended (Diebels et al., 2018; Figueredo & Jones, 2013; Marcus & Zeigler-Hill, 2015; Paulhus & Jones, 2015). The term Dark Triad was introduced by Paulhus and Williams (2002) to describe a constellation of three socially hostile personality traits. Given the Dark Triad's dark focus, it's not surprising that the field has focused on expecting a variety of negative psychological effects, i.e. hostility (Dinic & Wertag, 2018; Pailing et al., 2014; Paulhus et al., 2018), low bursting at the seams with feeling benevolence (Jonason & Kroll, 2014; Pajevic et al., 2018; Wai & Tiliopoulos, 2012), secure sets of assumptions for self-improvement, accomplishment, regulation, finances, pleasure, and temporary improvisatory procreation (Balakrishna et al., 2017; Ferrell & Jonason, 2016; Jonason et al., 2008; Kajonius et al., 2015; Lee et al., 2013), self-defeating (O'Boyle et al., 2012) and aggressive workplace behaviors (Spain et al., 2013; Spurr et al., 2015). In addition, as though the going before disclosures were not socially aversive adequate, the Dark Triad has without a doubt been connected with submitting the "seven risky sins" all the more oftentimes (Jonason et al., 2017; Veselka et al., 2014). These purported "dark" factors even though they have equal to clinical groups seem extensive variance in non-clinical tests (Delroy L. Paulhus, 2020).

Paulhus and Williams (2002) defined dark personality traits as psychopathy,



narcissism, and Machiavellianism, they coined the term Dark Triad. Psychopathy insinuates high impulsivity, thrill-chasing, low sympathy, and disquiet (Paulhus & Williams, 2002). Individuals high in Machiavellianism are basic, pessimistic, chilly, & practical, and seem improper convictions, and removed impact (Rathmann & Will, 2011). Individuals with a high level of narcissism appear to have distorted self-esteem and significance, transcendence over others, and are manipulative toward others in any way that they have a hypersensitive attitude about themselves (Ames et al., 2006).

**Psychopathy** has been thought to be a psychological condition, but there is a rising indication that it may be an autonomous, changeable personal history. approach established by normal choice (Lesleigh & Pullman, 2021). Psychopathy is a complex personality disorder characterized by high impulsivity, insensitivity, talkativeness and complexity, egocentricity, wildness, a desire for lament or blame, relational control, abuse, thrill-seeking, and low compassion, disquiet, and lament (Paulhus & Williams, 2002; Rabbit, 1991). Individuals with this characteristic are well-known for their persistent criminal leads (Rabbit, 2003). It appears conceivable that a person with psychopathic characteristics will have opinions congruent with independent direct and minor judgments of prosocial, altruistic leadership (Riopka, 2015). Those with greater levels of psychopathy are anti-social and pessimistic toward others (Hodson, 2009).

Mealey (1995) suggested that there are two pathways by which psychopathy can be conveyed. *Fundamental psychopathy* is a serious life history philosophy connected with genetically communicated genotypes that convey a gathering of stars of personality attributes and is kept up by pessimistic recurrence subordinate assurance: The qualities connected with psychopathy (e.g., insensitivity, manipulateness, need for lament) increase wellbeing since these attributes are unprecedented inside the general population (Vex, 2009). *Assistant psychopathy* might be a facultative life history procedure that is initiated by specific regular

circumstances (Mealey, 1995). The attributes connected with psychopathy emerge from changing individual and regular prospects. Individuals will show the attributes connected with psychopathy (e.g., manipulative way of behaving) when such qualities are expected to propel well-being inside the specific regular circumstances the individual thinks of themselves in. (Lesleigh & Pullman, 2021).

Psychopaths seem indiscreet rush chasing, untrustworthiness, need sympathy, relational control, and saved direct (Salekin, Leistico, & Mullins-Nelson, 2006; Rabbit, 2003; Williams, et al., 2003). Even though they get everything they might want in work circumstances (Babiak & Rabbit, 2006; Boddy, 2006) and perform well in momentary mating settings (Jonason et al., 2009), they are harming themselves as well as other people (e.g., alcohol usage, violence: Neumann and Rabbit, 2008; offense and bad behavior: Williams, Paulhus, & Rabbit, 2007). The psychopath is certifiably not a person that can be expeditiously perceived by actual signs that are seen inside different kinds of mental afflictions or messes. For a case, the psychopath doesn't include visualizations or without a doubt pays attention to voices that advise the person in question to get things done and carry on in some ways, not in the slightest degree like someone who is investigated with schizophrenia. Although sociopaths can't be expeditiously perceived by any unquestionable clinical signs, there are indisputable personality attributes that make psychopathy exceptionally different from other characters' messes up (Vien, 2006).

**Machiavellianism** is portrayed by the control and maltreatment of others, cunning, cold impact, and a requirement for honesty or moral concern (Christie & Geis, 1970). Machiavellians score low in Honesty-Humility (Ashton & Lee, 2005), amplifying the self-interface through confusion and disregard for other people. Machiavellianism addresses the inclination to misuse others for one's benefit in a negative, manipulative, and deceitful social design (Wilson, Close, & Mill, 1996). People with the high force of Machiavellianism

inclination to secure manipulative procedures by completing methodologies that amplify self-benefits (Ryckman, Thornton, & Butler, 1994). Help, Machiavellianism is connected with a disregard for the centrality of ethics and the sharpening of untruthfulness to take later and keep up with control (Smith & Lilienfeld, 2013).

Machiavellians seem chilly, basic, serious, and degenerate considering; the key long haul orchestrating; agentic motivation (e.g., control, money); and deception and misuse (Christie & Geis, 1970; Fehr, Samsom, & Paulhus, 1992; Jones & Paulhus, 2009; Rathmann, 2011; Rathmann & Will, 2011). They are depicted as cunning impression managers, self-beneficial, low in support of social presentations, less normally prodded working, and power-situated (Barker, 1994; Becker & O'Hair, 2007; Judge, Piccolo, & Kosalka, 2009; McHoskey, 1999), which makes them socially unfortunate. Be that as it may, they are additionally judged well and inclined toward as trailblazers ( Deluga, 2001; Hawley, 2003; Newcomb, Bukowski, & Pattee, 1993; Wilson et al., 1998).

**Narcissism**, another dark characteristic, is checked by wonderfulness, a feeling of being inclined toward it, and a nonappearance of compassion (Smith & Lilienfeld, 2013). Unprecedented self-misrepresentation is the picture of narcissism, which includes an overstated see of an individual, imaginative energies of being a regulator, a feeling of achievement and appreciation, and a wish for the guarantee of this self-esteem acknowledge being strengthened by others (O'Boyle, Forsyth, Banks,& McDaniel, 2012). In clinical settings narcissism is portrayed as "an unpreventable plan of ostentatiousness (in dream or direct), expect for veneration, and a need of compassion" (American Psychiatric Affiliation, 2013, p. 669). Self-absorbed individuals think significantly about themselves and their abilities and have strangely tall self-wants (Farwell & Wohlwend-Lloyd, 1998). The aftereffect of fulfilling such tall self-wants may re-implement egomaniacs' conviction in their case pervasiveness (cf. Campbell, Goodie, & Cultivate, 2004) and increase their tendency to

show assumption. Narcissists seem glorified, and unnecessarily overhauled self though corrupting others (Morf & Rhodewalt, 2001), as often as possible went with unprecedented assumption, self-centeredness, self-righteousness, and honor (Raskin & Terry, 1988).

Self-importance (2014) is "described by the simulation of magnificence or quality or by insane misrepresentation" and is the portraying incorporate of the personality normal for narcissism. Narcissists like being the center of attention, will more often than not show up off, acknowledge that they are unprecedented people, and incline in the direction of being in organization jobs and parts infested with control (Emmons, 1987; Raskin & Terry, 1988; Rhodewalt, 2011). From such a theoretical standpoint, it has been established that narcissism might be a self-administrative instrument that is used to safeguard preposterously tall degrees of confidence by utilizing an ordinarily strengthening structure of relational and instinctive self-administrative methodologies (Morf et al., 2011; Rhodewalt, 2011). Beyond a shadow of a doubt, this basic human expect to keep a positive self-idea is clear in a typical inclination for individuals to have expanded sees in their own right (Alicke & Sedikides, 2009, 2011), guaranteeing conscience assertions (Abramson, Mezulis, Hyde, & Hankin, 2004; Campbell & Sedikides, 1999), and acknowledge that they are better than the ordinary individual i.e., the better than normal effect (Alicke, 1985; Alicke & Govorun, 2005).

**Sadism** might be a "dark" characteristic that incorporates the experience of enjoyment from others' torture, whatever amount is dark nearly its point of interaction to antagonism. The healthy enjoyment of prosocial acts should battle humanity's darker pleasures. A couple of people display sadism, which incorporates "the think about the discipline of torture for satisfaction" (Nell, 2006, p. 227). Preliminary proof connects sadism to hostility, be that as it may, various points of view of sadistic animosity stay not altogether gotten on. (David S. Chester, 2018)

Sadism can be described as the inclination to see the value in causing, or watching,

others' persevering (Delroy L. Paulhus, 2020). Ordinary sadism, counting fulfillment of savage video redirections (Greitemeyer & Sagioglou, 2017), Web savaging (Buckels, Trapnell, Andjelovic, & Paulhus, 2019; Buckels, Trapnell & Paulhus, 2014), interest in weapons (Gonzalez & Greitemeyer, 2018), cyberstalking (Smoker & Walk, 2017), Web tormenting (Kircaburun, Jonason, & Griffiths, 2018), justify (Chester & DeWall, 2018), harmful power (Spain, Hurts, & Wood, 2016), bad introductions (Rogers et al., 2018), lamenting design (Lee, 2019), sexual violence (Russell and Ruler, 2016), and savage way of behaving inside the exploration office (Buckels et al., 2013; Chester, DeWall, & Enjaian, 2019). Sadism might be a compilation of personality attributes that are described by the tendency to see the value in the enduring of others (Baumeister, 1997; Nell, 2006). Rather than latently enjoying others' torture, contorted individuals successfully execute hurt, impelled by the pleasure of the powerful demonstration and the excruciating result (Davies, O'Meara, & Hammond, 2011). More present-day ways to deal with sadism conceptualize it as an interminably scattered part of a "dark" personality that intensifies past legitimate and clinical examples into the more extensive scattering of mankind (Buckels et al., 2013; Chabrol, Rodgers, Van Leeuwen, & Séjourné, 2009; O'Meara et al., 2011).

The Individuals high in narcissism starvation for manipulate and concession are entitled and have a self-absorbed self-appreciation (Paulhus & Williams, 2002). In the long final, subclinical sadism is described as a tendency to steady powerful and disparaging methods of behaving for delight or mistreatment (Plouffe et al., 2017). Across research, the Dark Tetrad and its trailblazer, the Dark Triad (Paulhus & Williams, 2002) have dependably been linked with aggression in multiple settings such as counting real violence (Buckels et al., 2013), tormenting (Baughman et al., 2012) and IPV (Carton & Egan, 2017; Kiire, 2017). Individuals high in psychopathy, however, are unmistakable from participants scoring excessive in the different Dark Triad attributes since they additionally score high on

impulsivity (Jones & Paulhus, 2011).

Taking the whole thing into account, people's high tiers of each one of the Dark Triad attributes stocks too extended levels of the workplace and occasional levels of fellowship which supports the unification war. Without a doubt, asking approximately the Dark Triad seems to have these attributes associated with hostility, tormenting, and bias, this is adverse ways of behaving in relational conditions. Elevated ranges of psychopathy, for case, are unequivocally connected with coordination and underhanded sick will (e.g. snitching, spreading bits of rumor), and accelerated tiers of Machiavellianism are determinedly associated with the two states of antagonism but extra insistently to underhanded aggression, and narcissism is vehemently related to coordinate states of aggression (Kerig & Stellwagen, 2010; Lau & Marsee, 2013). Concerning tormenting, psychopathy is the only dull trademark usually unequivocally connected with harassing, taken after with the aid of Machiavellianism and narcissism (Baughman et al., 2012). Machiavellianism's oblivious and determined conduct methodologies are related to professional triumph (Furnham et al., 2013) and virtually, younger humans with Machiavellian attributes seem to gain from them (Hawley, 2003). All the more specially, Machiavellian kids were socially skilled and preferred by their peers (Hawley, 2003). Hawley recommends that Machiavellians are "coercive regulators", the usage of an adaptable combination of professional and opposed-to-social methodologies to understand their objectives. Psychopathic individuals share multiple attributes with Machiavellians, to be unique insensitivity and relational manage but additionally will more frequently than now not be thoughtless, deceitful, and vainglorious. Psychopaths are conjectured to be stepped-forward con artists who enjoy the cooperation of others via missing everyday energetic and intellectual instruments that frustrate stored behavior (Book & Quinsey, 2004; Mealey, 1995).

Psychopaths may have greater triumphs in business and governmental troubles

(Babiak and Rabbit, 2006; Lillienfeld et al., 2012). They steady in greater transient mating methodologies (Harris et al., 2007), and they may quite regularly avoid exploiting hereditarily related circles of relatives (Krupp et al., 2012). Narcissism consolidates ostentatiousness, honor, and a persistent requirement for declaration. These tendencies might be profitable in preserving people's endeavors which are focused on themselves to the detriment of those round them Narcissism seems to offer advantages at the beginning of a social connection (Campbell, 2009) in transient scholastic settings (Robins & Lager, 2001) and popular lifestyles pleasure and confidence (Rose, 2002).

### **The interpersonal circumplex**

Dark personalities are the notion of as damaging and ill-disposed as they percentage an exploitive conduct style a hereditarily situated making development closer to self-high-quality goals on the fee of or if nothing else without regard for collective government assistance and others (Jones & Paulhus, 2010). Subsequently, dark personalities' disposition in friendly circumstances is as frequently as feasible checked by means of coldblooded, self-high quality, and manipulative methods of behaving (Williams, 2002). Dark personalities past a shadow of doubt display approaches of behaving excessive in office (excelling) and occasional in fellowship (getting alongside), which mirrors their antisocialist thoughts. It can on this manner be guessed the ones dark personalities ought to too depict themselves as adversarial (i.E., better workplace, lower fellowship; see Jones & Paulhus, 2010; Paulhus & Williams, 2002). Along those strains, dark personalities may be expected to see others in a completely primary level of pessimistic way due to pessimistic extraordinary fashions. Jones and Paulhus went in addition to war that, due to the fact that of their nearly same regions, perceiving the three required the opportunity of two one-of-a-kind estimations: Psychopathy stands remoted with the aid of scoring tall on a component of impulsivity; Narcissism stands isolated on a center point of most important persona ( self-development). Rathmann

(forthcoming) copied the circumplex area however confirmed that residual zed forms of the Dark triad dissipated to distinct quadrants.

### **The Five-Factor Model**

The five-factor model explains the five extensive factors of persona: Extraversion, Neuroticism and Openness to Experience, Agreeableness and Conscientiousness (Costa & McCrae, 1991). At least one of the Dark Triad has been linked to these Big Five (Adrian Furnham, 2018). The vast majority of the predictable are bad institutions with Agreeableness and Conscientiousness (Jakobwitz & Egan, 2006; Jonason, Koenig, & Tost, 2010; Jonason, Li, & Buss, 2010; Jonason, Li, & Teicher 2010; Jonason & Webster, 2010; Mill administrator et al., 2010; Nathanson, Paulhus, & Williams, 2006b; Nathanson et al., 2006a; Paulhus & Williams, 2002; Williams et al., 2010). When the Big Five highlights are disconnected, refinements a number of the Dark Triad increase. The maximum grounded affiliations for narcissism are reduced Unobtrusiveness and decreased Forthrightness, whereas psychopathy allegiances are normally grounded in low Deliberation and low Fidelity (Mill et al., 2010). Capabilities additionally upward thrust with the highlights of Conscientiousness: the most fundamental institutions of narcissism are success and competence, while the maximum essential associations of psychopathy are low devotion and coffee deliberation (Mill et al., 2010).

The Big Five might be a comprehensively used percentage of persona attributes which have been inspected appreciably (Raad & Perugini, 2002). This offers the gain of basic development legitimacy at the same time as portraying involves fruition, as Big Five Agreeableness is understood to narrate with a wide run of standoffish attributes (Jones, Mill administrator, & Lynam, 2011). One trouble is that the Big Five display has no longer been determined to exhaustively represent socially toxic persona attributes (e.G., Lee & Ashton, 2005; Jackson, 2000; Veselka et al., 2011), which could almost truly manage its capacity to



represent the center of the Dark Triad. One extra downside of the Big Five show is that genuinely despite the fact that the Big Five attributes have been related to formative explanations (McAdams & Buddies, 2006), no unequivocal components had been proposed for the development of the five unique character factors or the assortment internal them.

Another advanced idea is that a requirement for compassion (i.E., insensitivity) represents the duvet within the Dark Triad (Jones & Paulhus, 2010). Simon Baron-Cohen explored the threesome of Psychopathy, Narcissism, and Borderline Identity Disorder in his e book "The Science of Evil" (2011). Aristocrat Cohen battled that the characterizing characteristic of every one of the three changed into a zero-compassion personality. Tragically, Baron-Cohen's query is dangerous for a considerable duration of time. In the first area, it is extra practical than insightful, in that the demonstration of intentioned harming others requires a level of insensitivity, handing over the reason monotonously roundabout. Second, he additionally contends a similar 0-compassion underlies enormously contemplative people. There isn't any proof of a common developmental or neural mechanism among the two lessons. Third, it's been proposed that psychopathic people have Unyielding Empathy (Book et al., 2007), wherein they can get the feelings and motivations of a person else without the run-of-the-mill emotional reaction to such data. Finally, minimal sympathy became now not hired to describe Machiavellianism due to the fact that Machiavellians are capable (to various stages) of turning their empathy on and stale as wished (McIlwain et al., 2012). Subsequently, via compassion and insensitivity are nearly absolutely linked with the center of the Dark Triad, the concept of zero-sympathy appears to persevere via exclusive speculative issues and offers a divided reason for the center characteristics.

### **Evolutionary Principle**

A couple of transformative pupils have construed that the Dark Triad personalities are

adaptable for the same explanation and, alongside these lines, may be subsumed inside a solitary idea. Mealey occupies the time period psychopathy exchanged with Machiavellianism. Another formative collect, Wilson, Close, and Mill administrator (1996), increase bolstered the opportunity that Machiavellians are nonetheless a mixture of cultural con artists. Wilson and Prove from Characteristic Approaches associates battled that the folks that misdirect a fashionable public of non-con artists might first-rate limit themselves to temporary social conversation, and then they preserve. Something special, they may be distinguished point by point, and repercussions will end result due to their physical activities (Wilson et al., 1996, p. 4).

Different investigators have attracted formative hypotheses to give an explanation for almost equal relates gotten with proportions of the Dark Triad. Jonason, Li, Webster, and Schmitt (2009), case, factor through factor that every one of the 3 of the Dark Triad people became tall in a nutshell time period mating. This end is constant with preceding reviews of almost comparable superb institutions between Dark Triad individuals and sexual movement quotes (Hurts, Williams, and Paulhus, 2001; Reise & Wright, 1996). The final-referenced researchers, regardless, battled that these relative affiliations occurred due to unmistakable method and motivations.

### **Trait Theory**

Different investigators have been driven via characteristic exam to presume that human beings of the Dark Triad are three names for currently advanced identity improvement. For case, in a direction of movement of considers, McHoskey, Worzel, and Szyarto (1998) concept approximately various people of the Dark Triad to an association of identity institutions. Dark Triad measures covered significantly and shared practically identical associations with elements like disinhibition, forcefulness, self-introduced stored behavior, prosocial behavior, and helpfulness. Every one of the three was conflictingly

connected with Impact Company. McCloskey and friends reasoned that Machiavellianism is only a sensitive casing of psychopathy. Without a doubt within the one-of-a-kind paper, Paulhus and Williams (2002) given to demonstrate that the Dark Triad people have precise institutions. For representation, narcissism changed into related with openness and extraversion, but, the other have been now not. Machiavellianism and psychopathy have been conflictingly associated with honesty however narcissism become not. Jakobowitz and Egan (2006) too regarded differential interfaces a few of the Dark Triad of persona, although they have been no longer steady with those observed by way of Paulhus and Williams (2002).

Interpersonal idea. In phrases of Sullivanian interpersonal theory, the Dark Triad (e.G., Carson, 1969; Sullivan, 1953). Each of the 3 factors may be regarded from an interpersonal standpoint. Consider narcissism: It may be regarded as an interpersonal function within the experience that egomaniacs require others' approval to compensate for their primary vulnerability. According to Morf and Rhodewalt (2001) other human being's compliments are more precious to narcissists than their personal. One may additionally argue that Machiavellians demand others to dominate them: without others, they may be unable to fulfill their choice for deception (Ekman, 1980). Finally, psychopathy can be interpersonal inside the experience that sociopaths anticipate being hurt. Their abuse of others may be encouraged by using a choice to look others succeed.

## **2.2 Criminal Cognition**

Cognition might be a time period insinuating the psychological systems remembered for buying statistics and understanding. These intellectual systems consolidate thinking about, knowing, remembering, judging, and vital thinking. The social-intellectual perspective on personality may be a hypothesis that accentuates intellectual cycles, for example, thinking about and determining, inside the development of personality. These mental systems upload to learned approaches of behaving which are essential to one's character (Walter Mischel,

1930). Criminogenic thinking can be portrayed as wondering designs related to standoffish and needless methods of behaving (Tafrate et al., 2018). Walters (2006) defined crook reasoning as thought substance and plan helpful for the start and upkeep of intermittent law breaking behavior. Criminal reasoning has been related with each younger grownup and person standoffish direct ( Simourd & Andrews, 1994; Walters, 2006). Eysenck's concept of personality is considered one of most effective a handful of brilliant hypotheses of individual that unequivocally joins persona to culpability. It is problematic that 'crook' intellectual mutilations (preserving up crook ways of behaving by way of enabling individuals to keep contemplative qualities and shape self-serving ideations) are normal to most transgressors types (Evade et al., 1990). In making such contemplations, it will likely be viable guilty others for offenses, as a consequence unequivocally determine out introverted direct. Such considerations require attempt and are not extraordinarily long lasting, for even though an offense might comprise legitimizing the offense of relational limits and obstructions. The most mental contorting heading to offending is idea via a couple to be the over-esteeming of narcissistic views and concerns that qualifies a blameworthy party for the act in an oddity manner (Yochelson & Samenow, 1976).

It is on the spot to suggest that persona might connect with character differentiation in expertise the out of doors world and one's case installed it. Regardless, for the maximum component, the path to a mental comprehension of persona has been circumlocutory. In analysis, for case, the sufficiency of the internal self always appears compliant to the important drives of the identification. A brief time later, researchers counting George Kelly and Carl Rogers set mental structures at the point of interest of persona request, accentuating the character's powerful undertakings at figuring out the world and oneself. Regardless, those clinically-arranged strategies required the advantages of the traditional models of information managing given through intellectual mind research (Gerald Matthews, 2009). Criminal

reasoning has specific reasoning styles which are bound to set off, beef up, and hold up a criminal life-style (Walters, 2007). According to a study psychopathy is significantly connected with raised rankings on a high range of criminal thinking (Dembo et al., 2007). Furthermore, individuals with high trademark psychopathy were significantly sure to have dedicated an offense contrasted and low and direct trademark psychopathy ranges.

The growth of cognitive-behavioral treatments (CBT), which have proven itself as our maximum tentatively mentioned treatments for a extensive variety of mistakes, has been a vital factor of cognitive internal sociologies. CBT began that was with the therapy has now multiplied to include a huge range of issues, inclusive of criminal conduct (Beck et al., 2004). CBT interventions consciousness at the unmistakable verification of particular reasoning plans related with interesting close-to-home reactions and damaged methods of behaving. The conceptualization and popularity verification of considering plans typical for blameworthy gatherings is one take a look at for cognitive-behavioral assessment and treatment in logical settings. The impact of psychopathy's personality development is conspicuously absent from present crook reasoning insubordinate. Psychopathy is clinically proof against remedy (Thornton & Blud, 2007), reoffending (Wormith et al., 2007), and violence (Campbell et al., 2009), and the association with abusive conduct. It is characterized through grandiosity, a want for compassion and criticism, a parasitic and exploitive presentation towards others, invigorating looking for, and deceitfulness (Rabbit (Edens et al., 2008). Generally applicable to the topic underneath dialogue, multiple creators have diagnosed the general want for an evaluation of the cognitive thing of psychopathy that correctly drives crook pastime (Gonsalves et al., 2009). The process of assembling studies on the association between crook questioning and psychopathic features has begun (Mitchell & Tafrate 2011).

Criminal reasoning has been conceptualized as an interior responsively computation

that connects with motivation and basis for some other time. A couple of assessments give initial back for the give up that transgressors with extra substantial levels of criminal attention are extra inconvenient to secure in interventions (Best et al., 2009; Flynn et al., 2007; Joe et al., 2010; Dumenci et al., 2011). In case crook considering has a segment in responsivity to programming, it would be expected to be a mark of trimming down. Inside the Olver and pals (2011) meta-investigation, criminal reasoning had an authentically good sized, but little reference to whittling down. Guilty celebration attributes inside the areas of remedy commitment (inconvenient manner of behaving, poor perspective regarding treatment), persona (psychopathy, person mess investigate), and criminal records (earlier imprisonments, association offenses) ascended as the maximum grounded marks of software non-consummation (Olver et al., 2011). Asks approximately growing the impact that there is a fine connection between crook consideration and proportions of psychopathy (Walters & Mandell, 2007)

People having Criminogenic or crook reasoning examples have precise convictions related with self and others. For instance, referring to introverted friends, view the self as being much like, and may relate exceptional to, standoffish partners; Looks for the underwriting of saved peers; See institutions with prosocial peers as pointless. They have negligence for different human beings, have Callousness or relentlessness towards others, they want compassion and lament, and believed that the necessities or privileges of others are insignificant. They have aggression toward the crook equity body of workers and have an opposed and dubious disposition towards police, felony counselors, judges, case managers, and so on. These human beings have a feeling of self-significance and qualification, have expanded convictions kind of around themselves; and one is justifying incredible treatment. They might search for electricity and command over others' way of behaving and can interest for energy like searching out a thrill and might require obstruction for weariness or incautious

reasoning and impartial course. Their ordinary point is to abuse situations or institutions for individuals to get on every occasion presented the threat. They may experience a bit unsure and adverse concerning policies, regulations, and guidelines and are responsive and oppositional to professionals. They have legitimization, justification, and minimization of a hurtful pointless manner of behaving. That's what they agree with manner of smallest obstruction way to cope with issue addressing and way of lifestyles hesitation. They have powerlessness to evolve and coffee dissatisfaction resilience. They underrate unfortunate effects of unsafe approaches of behaving and that they acknowledge that dynamic aptitudes are solid. (Mitchell & Tafrate, 2011; Walters, 1990; Wright & Decker, 1997).

The criminal reasoning plan on the CTP generally associated with psychopathy, Neglect for Others, would be the considering configuration most unequivocally connected with trimming down in both local area programs. Since psychopathy made an appearance to be a respectably strong mark of consistent misfortune inside the Olver et al. (2011) meta-investigation, and the CTP was made around cognitions liable to be connected with this problem, a strong association with trimming down was expected. Maladaptive or criminal reasoning has been connected with saved conduct (Andrews & Simourd, 1994; Walters, 2006). Additionally, more certifiable blameworthy gatherings (for example unpleasant, property) have been found to have higher criminal reasoning scores contrasted and less certifiable transgressors (for example sedate, status) (McCoy et al., 2006). Saved cognitions are unsettling, as a couple of considerations have created the impression that criminals consider and held perspectives and considerations anticipate criminal ways of behaving (Holsinger, 1999; Walters, 2005). Additionally, there's a positive association between an individual's assimilation of saved cognitions and the earnestness of their criminal direction (Lora & Simourd, 1994).

Normal criminal reasoning could be an overall level of the proximity or

nonappearance of criminal reasoning. Proactive criminal reasoning could be a level of objective coordinated, ponders, and coordinated states of hostility or criminal way of behaving; responsive criminal considering might be a level of unconstrained, indiscreet, and traditionalist states of ill will or criminal's way of behaving (Robert D. Morgan 2015). The distinctive verification of specific considering plans related to dangerous energetic reactions and broken rehearses is at the focal point of CBT intercessions. (Mitchell & Tafrate, 2011). Criminal reasoning catches both individuals' thought processes (i.e., positive perspectives toward saved others and introverted ways of behaving, and pessimistic dispositions toward subject matter experts, the criminal value structure, and prosocial exercises/individuals), as well as individuals' thought processes around criminal open doors, issues, and the world in like manner. Representations of criminogenic figured structures might consolidate externalization, honor, authenticating one's control to frame a clarification, demand for respect, relentlessness, self-image anti-extremism, aversion of issues, inability to make due, expecting the most incredibly terrible, super positive thinking in one's ability to perpetuate bad behavior, removing pessimistic sentiments or contemplations that frustrate bad behavior, energy demand, danger searching for, inability to deal with weariness, an expectation for autonomy, a middle on speedy or momentary satisfaction, and a perspective that prosocial life is exhausting which the party lifestyle is significantly more justifying of one's time, imperativeness, and resources (Mitchell & Tafrate, 2011; Walters, 1990; Wright & Decker, 1997).

### **Theoretical Explanation of Criminal Cognition**

**The Psychodynamic Perspective** is one of the basic subject Sigmund Freud's work. He believed that every behavior including violent behavior is because of "oblivious" forces that operate within a person's psyche. Freud acknowledged that if clashes occur at any stage of psychosexual transformation it affect person's ability to work normally as an adult (Bartol,



2002). It's fascinating that Freud didn't have many theories about crime or viciousness. August Eichorn is one of the psychoanalyst whose work is closely linked with criminality. Eichorn believed that being exposed to distressing social conditions did not result in crime or viciousness. Overall, a large number of people are under intense pressure and do not engage in genuine forms of crime. Eichorn believed that pressure only resulted in crime in people who had a specific mental state known as inactive misconduct. According to Eichorn, inactive misconduct is the result of insufficient youth socialization and manifests itself in the need for guaranteed satisfaction impulsivity, a lack of compassion for others, and the inability to feel responsibility (Eichorn, 1935). It is also argued that adolescents with powerless inner selves are juvenile and easily pushed into crime and brutality by degenerate friends (Andrews and Bonta, 1994). Overall, psychodynamic speculations portray the vicious guilty party as an indiscreet, easily disappointed individual who is overwhelmed by events or issues that occurred in childhood.

**Cognitive Theories** Cognitive theorists are concerned in how people perceive and cope with challenges in their social environments. A component of cognitive theory is the moral and scholarly progress point of view. Piaget (1932) may have been the first therapist to propose that people's cognitive capacities result in a systematic and intelligent design. In 1969 Kohlberg investigated concept of moral improvement by exploring individual's criminal behavior. He contended that all people go through six distinct stages of moral transformation. He thought that people simply obey the law because they are afraid of being punished. Individuals comply with the law by the sixth stage, however, because it is an expected commitment and because they have faith in the all-inclusive standards of equity, value, and regard for others. Kohlberg discovered that violent even after correcting for the social base, aggressive children had essentially weaker virtuous behavior than peaceful youth (Kohlberg et al., 1973). Studies have repeatedly revealed that those who submit to the law

solely to escape discipline (i.e., out of personal responsibility) are more prone to conduct violent crimes than those who see and connect with the fundamental rights of others. Acts of kindness, liberality, and peace, on the other hand, are related to higher degrees of moral thought (Veneziano and Veneziano, 1992). Overall, the research implies that people with weaker moral reasoning would participate in crime and spitefulness when they desire to pull it off. In any event, those with higher degrees of moral thinking would avoid engaging in illegal action when given the option because they consider it is bad.

The investigation of information processing is another subject that has focused by violence specialists in domain of cognitive theory. According to psychological research, when people simply decide, they engage in a series of mind-boggling ways of thinking. They encode and decipher the information or improvements they are given first, then look for a legitimate reaction or appropriate activity, and finally, they follow up on their choice (Dodge, 1986). Information processing theorists explained that people who are violent may make incorrect decisions based on inaccurate information. Violence-prone youth, for example, may perceive others as more compromising or forceful than they are. Some adolescents who participate in violent actions on others feel they are protecting themselves, even though the amount of risk has been grossly underestimated (Lochman, 1987). According to ongoing study, male offenders usually exhibit little compassion for their victims. This data implies that some criminals are oblivious to the harm they are committing (Langton & Marshall, 2001; Lipton et al., 1987).

### **Personality Traits and Criminal Cognition**

The "personality" of a person is defined as consistent examples of behavior, beliefs, or actions that differentiate one person from another (Seigel & McCormick, 2006: 180). Psychologists have identified personality traits associated with viciousness, such as self-emphathics, insubordination, extroversion, narcissism and doubt. The Gluecks (Glueck &

Glueck, 1950) identified many personality traits that they linked to violent behaviour such as antagonism, vanity, self-centeredness, resentment, desire, and detachment from our lack of compassion for others. Criminals have also been discovered to require aspiration and determination, to struggle with remaining calm and different driving forces, and to be more likely than ordinary people to have unpredictable beliefs (Atkins, 2007; Capara et al., 2007; Costello & Dunaway 2003; Johnson et al., 2000; Miller & Lynam, 2001; Sutherland & Shepard, 2002).

Young people who are prone to violence frequently respond to disappointing events or circumstances with strong pessimistic emotions. Despite hostile social circumstances, they frequently feel worried, restless, and irritable. Psychological testing also indicates that wrongdoing-prone youth are indiscreet, distrustful, forceful, antagonistic, and quick to act against obvious dangers (Avshalom et al., 1994). Some researchers argue that there is a direct causal relationship between certain personality traits and criminality. Others maintain that personality traits collaborate with other variables to deliver wrongdoing and viciousness. Insubordinate, rash youth, for example, frequently lack heavenly instructive and work chronicles. Unfortunate instruction and business narratives along these lines close potential financial doors. As a result of these obstructed open doors, there is dissatisfaction, hardship, and, eventually, crime (Miller & Lynam, 2001).

**Psychopathy and Criminal Cognition.** A few genuinely violent criminals, according to study, may have a true personality condition known as psychopathy, sociopathy, or hostility to social personality disorder. Psychopaths are reckless, lack accountability, and ignore the rights of others (Wortley & Scot, 2008). According to research, psychopaths are essentially more prone to viciousness than the overall population. It is believed that over 30% of all prison inmates in the United States are psychopaths. Later projections, on the other hand, place this figure closer to 10%. Regardless, psychopaths are over-addressed among

persistently guilty parties. It is estimated that up to 80% of persistently guilty parties have psychopathic personalities. Overall, research suggests that psychopaths are fundamentally more likely to be vicious than others. Nonetheless, experts emphasize that not all psychopaths become violent. Most people sentenced for heinous crimes in Canada and the United States do not have a psychopathic personality (Edens et al., 2001; Lykken, 1996).

### **2.3 Moral Disengagement**

All things considered, most upright people profoundly want to make the wisest decision (Gentile, 2010). The interaction by which people figure out what is correct, be that as it may, is an undeniable mind-boggling one (Treviño et al., 2014). Morality could be an advancing course of isolating among perfect and catastrophes. Advance, morality is on a very basic level a standard or methodology of conduct portraying codes of change and erroneous in a human direction. Expected conduct of people of the local area was described by some time as of late determined structure of guidelines and benchmarks. It perceives amidst what is perceived as "decent", and what is unlawful as "mischievous". Additionally, in discrete social orders, these principles are viewed around the world and connected with all individuals all around. Moral issues are energized by socio-social features, as friendly rules and principles take intense dispositions on how people think about and convey. In different words, morality could be a structure of contemplations that settle on an individual to be in concurrence with benchmarks of right or extraordinary direction. All through one's formal and easygoing learning, moral improvement takes put through the course of progression and socialization (Mujtaba, Cavico, McCartney, & DiPaolo, 2009).

In the development of a moral self, people take on norms of good and bad that act as guides and obstructions for lead. They do things that give them fulfillment and an identity worth. They cease acting in manners that disregard their moral guidelines because such direct will bring self-judgment. These positive and negative self-sanctions keep conduct under

moral principles. In any case, in an unavoidable moral mystery, individuals in varying backgrounds act destructively nevertheless keeping positive self-respect and living in harmony with themselves. They do as such by separating moral self-sanctions from their hurtful practices. These psychosocial mechanisms of moral disengagement work at both the individual and social framework levels (Bandura, 1999). Moral disengagement is known as a bunch of social-cognitive instruments that license individuals to legitimize their reprehensible and harming for the government-managed retirement exercises in orchestrating to safeguard the mental self-portrait (Bandura, 1986). Facilitating cognitive disharmony (Detert, Treviño, & Sweitzer, 2008). It is known as "the tendency to legitimize one's exercises hurting the government managed retirement with the target of confidence conservation, limiting the individual obligation for the harm to the others" (Caprara et al., 2006; Caprara et al., 2009). Though people all around know right from misguided, a couple find it less difficult to isolate from their ethical guidelines than others. This direct is called moral disengagement. (Vincent Egan, 2015). Moral disengagement (Bandura, 1986) provides a concrete example of how individuals violate their own ethics. Individuals all across the world seek consistency in their moral values. This is how they prevent a mismatch between what they recognise to be proper and how they genuinely proceed. In case one can withdraw from individual moral guidelines, it will be less difficult to legitimize secures in rehearses consistently thought to be bad.

Considering that all activities produce outcomes, whether they are enormous or little, positive or negative, people are probably going to encounter extra close-to-home inconvenience in the wake of finding out about the outcomes coming about because of their untrustworthy demonstration. Albeit surviving examination has investigated the feelings present at the dynamic time, the expected close-to-home reactions of participating in an untrustworthy demonstration, and the profound results of having disregarded one's ethical guidelines (Lowenstein et al., 2001; Morris et al., 2002; Sayegh et al., 2004; Tenbrunsel &

Smith-Crowe, 2008), little is referred to about the close to home responses delivered subsequently of finding out about the results of one's untrustworthy way of behaving (Tillman et al., 2017). Moral conflicts are a comprehensive feature of the ongoing scene. All individuals go facing it in their lives, in districts, in political discussions about, and inside the countrywide dealings and past the social limits. Bandura (1986; 1999) influences the idea of moral disengagement. As indicated by him, it very well may be a course of effect that virtues don't connect with oneself in a particular situation. The parts of self-judgment are incapacitated in this manner by ethically separated individuals. This development was investigated in various countries and associated with other mental aspects, for example, Some of the ways in which social norms are applied to human behaviour include direct and moral thinking (Carlo and Randall, 2002; De Caroli & Sagone, 2013), aggression (Bandura et al., 2001) and bullying (Hymel, Rocke-Henderson, & Bonanno, 2005; Bauman, 2010).

Moral disengagement is based on principles of social cognitive theory (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996; Bandura, 2002) and is characterized as "*a cognitive cycle, by which an individual legitimizes his/her destructive or forceful conduct, by slackening his/her internal identity administrative instruments which typically keeps conduct in accordance with individual principles*" (Pornari & Wood, 2010, p. 81). For the most part, in utilizing In moral disengagement, the individual does not accept responsibility for his or her behaviour and seeks ways to justify an unpleasant way of acting. Bandura et al. (1996) depicted eight explicit practices for moral disengagement. The first is a moral justification in which the individual cognitively reconstructs damaging behaviour as a socially acceptable manner of functioning. On account of advantageous comparison, the singular thinks about destructive demonstrations with additional indefensible exercises, to such an extent that they become seen as being of less outcome. In relocation of responsibility, individuals view their activities because of cultural or authority pressures (Pornari & Wood, 2010). While in the

diffusion of responsibility, responsibility is thought of to be the onus of the entire gathering and not that of the person whose job is seen as innocuous in disengagement. Moreover, hurt done by a gathering can be ascribed to the way of behaving of others, in this manner repudiating moral responsibility. Distorting the consequences happens when the consequences of a destructive demonstration are limited, disregarded, or contorted to free the culprit from sensations of self-judgment. In attribution of blame, culprits either blame their conditions or blame their casualties who are considered to have brought their enduring upon themselves. In the last act of dehumanization, casualties are deprived of human characteristics or are credited brutish characteristics. It is imagined that people might do this because seeing somebody as human initiates compassion through saw comparability (Bandura, 2002) thus making it more challenging to distress hurt those considered to be human.

Bandura (1986) suggested the cognitive pathways by which moral disengagement shapes introverted direct are relative to those who generally think relational antagonism and delinquent lead. The most justification for why people avoid perpetuating bad behavior is subordinate to their idea of moral quality. Moral detachment recommends a cognitive difference in the ruffian direct into a redress one, possibly praiseworthy of justification through an advantageous correlation. (I. Petruccelli, 2017). Moral disengagement is finished by utilizing a bunch of instruments of cognitive reconstructing Bandura (2002) has portrayed these components as moral legitimization, metaphorical marking, worthwhile correlation, relocation or dissemination of obligation, negligence or mutilation of outcomes, dehumanization, and attribution of fault. Ethical validation might be a handle in which harming conduct is thought of as acceptable by portraying it as serving socially praiseworthy. The beneficial correlation is alluded to in rehearses and regarded as additional genuine in orchestrating to isolate the thought from adverse consequences of individual results. The

displacement or diffusion of responsibility licenses individuals to impart the commitment for pernicious activities to them in a bunch in orchestrating to make light of the earnestness of practices acknowledged by the single person. The euphemistic labeling is associated with verbal control to diminish the mercilessness and earnestness of exercises. The dehumanization of casualty licenses individuals to prevent the setback from getting human attributes. The attribution of blame is an instrument that licenses individuals to consider their case obstructing rehearses as brought about by the person in question. At long last, the distortion of consequences is used to change the effects of malevolent exercises in orchestrating to diminish individual unfortunate behavior. (Maria Elvira, De Carol, 2014)

Moral disengagement is now commonly acknowledged as a means of comprehending immoral corporate behaviour (Bandura 2016; Moore 2008). Individuals excuse themselves of unethical behaviour in the absence of morally disengaged cognition. (Bandura 1999; Bandura et al. 2000; Gini et al. 2015; White et al. 2009). Taking into account the later revelations point by point by Detert et al. (2008) practically the trailblazers and aftereffects of moral disengagement, it is agreed that people with low levels of sympathy, need for moral personality, antagonism, and chance locus of control acquaintance were more skewed with moral withdrawal than the others. Furthermore, Vollum et al. (2004) investigated that individuals who would generally hug the instruments of moral disengagement concerning the treatment of animals showed less concern about violence against animals and were less restorative in their perspectives toward such demonstrations; dehumanization and property dispositions were the most grounded signs of concern about animal callousness and misuse and remedial perspectives toward the people who committed such demonstrations. According to Carlo and Randall (2002), the more likely children and teenagers were to act prosocially, the less they received moral disengagement tools. Moral principles, in any case, do not always work as interior controllers of direct. Self-management tools do not become possibly



the most important factor unless they are initiated; additionally, there are numerous social and mental moves by which moral self-authorizations can be distinguished from coldhearted direct. Furthermore, disengagement of individual control permits unique types of direction by people with similar moral guidelines in more favorable conditions (Bandura, 1999).

### **Moral disengagement as a mediator**

Moral disengagement mediates the influence of individual-level markers on morally risky mental and behavioural outcomes. Leidner observed that moral disengagement mediates the association between enjoying one's group identity and lower demands for equality for those victims of the Iraq war (Leidner et al., 2010). Duffy et al. demonstrated that narcissism predicted social undermining conduct through moral disengagement in two multi-wave investigations. Investigations of emergency clinic representatives and understudy groups (Michelle K. Duffy, 2012) and Paciello et al. discovered that moral disengagement induced by private difficulties allows people to absolve themselves of responsibility for those in need (Marinella Paciello, 2012).

A few studies have looked at how positive instances influence negative behaviour through moral disengagement. In Hyde's longitudinal research of low-wage kids, moral disengagement of study subjects at 15 years of age mediated the link between inadequate nurturing at 1.5-2 years and adolescent antisocial behaviour at 16 and 17 years of age (Luke W. Hyde, 2009). Hodge and Lonsdale discovered that moral disengagement mediated the link between dominating instructing approaches and greater degrees of animosity to social behaviour toward colleagues and opponents (Ken Hodge, 2013). The connection between psychopathy and criminal behavior was immediate for reprobates, but mediated through moral disengagement for young people with lower levels of psychopathy (Matt DeLisi, 2013). These investigations suggest the complex intelligent processes that consolidate to deliver our moral behavior. The point at which we enter a setting determines who we are as

well as what that setting means for us.

## **2.4 Emotion Recognition**

Every day we got to associate with others. A portion of the time these individuals are inadequate or reluctant to permit us quick and dirty information roughly their energetic condition. This makes it difficult for us to act and respond fittingly. As Aristotle (384-322 BCE) expressed, "Emotions are those sentiments that change man as to influence their insight, and that can likewise be addressed as delight or torment, like apprehension, outrage, pity, and like with their alternate extremes". Emotions can turn into a durable characteristic of one's personality. An emotion might have enunciated actual reinforcements, like a look, or it could be imperceptible to observers. An emotion might incorporate perceptive experience and reflection, as when one "flounders" in it, or it might pass inconspicuously and unacknowledged by the subject (Solomon, 2021). Nevertheless, we will endeavor to make enlistments around their energetic condition the reason for their looks. Looks are difficult to control, recommending that they pass on basic information practically the enthusiastic conditions of our collaboration accessories. Using this information licenses us to change our exercises and reactions to their enthusiastic requirements, which is fundamental for the underpinning of a common perspective. We who have difficulties to use this information additionally have difficulties to get it their collaboration accessories, exhibiting that the course of our insightful is fundamentally affected by how we get ready information that is given by the looks of our communication associates.

Of course, recognizing emotion in others is a vital component of social connection. The fact that most of this recognition is predicated on nonverbal signals - expressive movements, gestures, and extra lingual vocal occurrences - raises some important questions about how these cues should be used (Frijda, 1969). Humans communicate primarily through speech, but also through body gestures to emphasize a specific part of the speech and to

express emotions. Humans use these communication paths simultaneously and in combination in face-to-face interactions, complementing and enhancing one another. Conversational interaction is generally important in human communication, with vision, gaze, expression, and manual gesture frequently contributing skeptically and pervasively sensationalizing facets such as emotion, mood, attitude, and attentiveness (Sebe et al., 2004). Many psychologists believe that distinct emotions such as pleasure, sorrow, anger, and fear have an impact on our thoughts, actions, and behavior (Bechara, Damasio, & Damasio, 2000; Bower, 1991; Clore, Schwarz, & Conway, 1994; Fredrickson, 2000; Lerner & Keltner, 2000). Furthermore, successful research professionals tend to agree on the ingredients and qualities of emotion; nevertheless, there is no agreement on a definition of emotion, and theorists and researchers use it in manners that claim different processes, interpretations, and roles (Izard, 2006). Some emotion researchers have called into doubt the usefulness of discrete emotion categories, saying that broad emotive dimensions or core affect are necessary and complimentary notions (J.A. Russell, 2003; Watson, Wiese, Vaidya, & Tellegen, 1999).

Theorists oppose the operations that stimulate distinct emotions and their role in our everyday routines and endeavors (Ellsworth & Scherer, 2003). (cf. Chartrand, Maddux, & Lakin, 2005). In the contemporary controversy over emotions as natural kinds, the terms emotion and basic-emotion theories were frequently used interchangeably to refer to significantly different constructs of basic emotions as well as emotion schemas (Barrett, 2006). There is also debate about the validity and utility of the dominant view of emotions as instinctual forms, which are usually defined as categories or families of manifestations with common properties provided by nature (Barrett, 2006; Panksepp, 2007). Consenting to social cognitive theory, people can continuously apply self-effect on their direct. (Eckstein, 2005). Despite the way that it is generally agreed that making exact decisions about someone else's emotional state works on the reasonability of correspondence, the ability to unequivocally see

others' sentiments is especially basic in psychotherapy and psychotherapy research. Feeling affirmation limit has been perceived as a focal part of enthusiastic capability. Earnestly skillful individuals are portrayed by the ideal working of the inclination instrument in two significant spaces feeling age and feeling recognition (Scherer, 2007). Emotional recognition is subordinate to information gotten past both verbal and nonverbal channels. Individuals have all the earmarks of being ready to perceive sentiments with a healthy degree of precision, however, this accuracy might diminish when information is confined to either verbal or nonverbal channels of correspondence, for example, looks and vocal signals alone, or when unmistakable channels give clashing information (Ekman, 1982, 1992, 1993; Ekman and Friesen, 1974; Scherer, 1981, 1986).

Leist and Dadds (2009) observed that manhandled young people were more exact in perceiving dread and pity, but not shock. Despite the way that findings should be imitated, extended recognition of dread comparative with shock may reflect a formative inclination that is particularly expressed in individuals with troublesome life experiences. Dread probably progressed as a basic part of a human's assurance structure, hailing hazards and motivating difficulty and escape (Öhman, 2008). The look might be center expertise that also has an influence inside the more mind-boggling work out of feeling acceptance in up close and personal correspondence conditions since it shows up reasonable that the watched articulation plans are contrasted and evaluated with respect with prototypical plans, especially as regards their validity. Emotion recognition is conventionally founded on the impression of pictures brimming with feeling substance, counting looks. (Artemisa R. Does, 2020). The ability to show unmistakable enthusiastic articulations unequivocally influences the approach to friendly communication (Mavridis, 2015).

Affectability to pointers of emotion is basic for the sloth flow of social collaboration (Lazarus, 1991; Plutchik, 2003). The relationship between emotional experience and direct

shows that a singular's way of behaving is intently attached to their brimming feeling state (Ekman, 2003; Frijda, 1986; Lazarus, 1991; Plutchik, 2003). Care of the energetic condition of communication accessories proffers noteworthy benefit for the social perceiver. By going to markers of another's energetic express, the perceiver can acquire data obliging for coordinating collaboration with that person. For representation, realizing that someone is perturbed will prompt a somewhat unmistakable collaboration than will realizing that they are energetic (Davidson, Ekman, Saron, Senulis, et al., 1990). Disillusionment to acquire this information, separate, can have adverse outcomes for social instinct, correspondence, and associations.

Information demonstrating the emotional condition of others is consistently available in their looks (Ekman and Friesen, 1971; Ekman, Sorenson, and Friesen, 1969; Izard, 1994; for an overview (Elfenbein and Ambady, 2002)). Incapacitated affectability to looks or feelings can, by then, have negative results for social instinct and associations. Without a doubt, deficits in affectability to articulations of feeling have been perceived in specific peoples who seem down and out of friendly limits. Aristocrat Cohen and associates recommend that incapacitated affectability to looks of feeling inside friendly insightful is connected with a singular's inability to see, and to reason around, the enthusiastic states, contemplations, and opinions of others (Baron-Cohen, Leslie, and Frith, 1985; Flavell, 1999).

The definition of expressive conduct may refer to an emotional experience or attitude in the individual being viewed. The observer may generate an inner imagined representation of the other person's feelings; alternatively, he may elicit or prepare a verbal label; or the inner empathic representation may be substituted by incipient or actual motor imitation of the perceived motions. According to accounts in the literature and introspections of experimental participants, all of these appear to occur on occasion (Frijda, 1969). Emotion recognition is conventionally founded on the impression of pictures brimming with feeling substance,

counting looks. (Artemisa R. Does, 2020). Notwithstanding the way that looks can demonstrate the brimming feeling condition of a man (Adelmann & Zajonc, 1989; Buck, 1985; Ekman, 2003), they don't do such. Looks might be decoupled from enthusiastic contribution because of pretentious hailing, which is reenacting a look of an energetic expression that one isn't experiencing, for case smiling without being playful or glowering without being perturbed. Such impersonated articulations are known as acted articulations while those articulations which truly reflect an emotional state being capable are true blue articulations. Individuals might show a posed articulation for various reasons - for representation, some individuals might smile to disguise different sentiments (Ekman and Friesen, 1982; Ekman, Friesen, and O'Sullivan, 1988), to diminish conflict and pressure (Ikuta, 1999), to orchestrate conversation (Ekman, 2001), to assuage others (Hecht and LaFrance, 1998), or to control perceivers (Keating and Heltman, 1994). The social perceiver genuinely should have the option to recognize true blue and posed articulations.

A typical method for watching emotions is the assessment of looks (Ko, 2018). Having speculation of astuteness licenses us to get it that others have extraordinary convictions and needs that are unmistakable from our have, enabling us to secure each day friendly-collaboration as we interpret the psychological states and instigate the ways of behaving of everyone around us (Premack & Woodruff, 1978). Agreeing to clinician Simon Baron-Cohen, thought is one of the essential fundamental predecessors to the improvement of a completely fledged speculation of astuteness. This includes perceiving that seeing isn't just looking, however, or perhaps prepared to explicitly facilitate our thought to specific articles and people (Baron-Cohen, 1991). Emotionally skillful people are described by the ideal working of the emotion component in two significant spaces emotion creation and emotion discernment (Scherer, 2007). Though emotion creation capability alludes to the fittingness of the complete example of substantial and conduct changes as a versatile reaction to a

significant occasion, permitting the organic entity to effectively adapt to its ramifications, emotion discernment skill alludes to the capacity to see and decipher the emotional condition of others in friendly intercourse precisely (Bänziger et al., 2009). Researchers working from an information handling point of view (e.g., Crick and Dodge, 1994) look at how individuals process emotional signs, and what this handling could mean for conduct, interactive abilities, and friend acknowledgment (e.g., Field & Waiden, 1982; Parke et al., 1989). Cramp and Dodge (1994) recommended that emotions are an indispensable piece of every data handling step. Recognition biases may be more significant than recognition accuracy in predicting social behavior and peer acceptability (Barth & Bastiani, 1997).

The traditional method for investigating emotional perception and recognition involves displaying emotive facial expressions (Dores et al., 2020). According to Ekman, facial expressions are both universal (at least in part) and culturally distinctive. Researchers changed the cognitive load of individuals to try to distinguish between automatic reactions and those that needed attention control. Individuals cannot dedicate the same cognitive effort to a task such as interpreting facial cues when they are given another task that simultaneously demands their cognitive resources; as a result, they are more reliant on automatic processes to finish the latter task. Differences in facial emotion perception under high and low cognitive load could reveal whether early emotional expression perception is learned or automatic to some extent (English et al., 2018). A basic emotion can be defined as a collection of neural, physiological, and feeling/motivational components that emerge incredibly quickly, instantaneously, and unconsciously when recurring affective-cognitive processes interact with the sensing or perception of an accurate and realistic stimulus to invoke evolutionarily modified neurobiological and mental processes (Izard, 2007).

Sensitivity to emotional cues is required for the smooth flow of social interaction (Lazarus, 1991; Plutchik, 2003). The relationship between emotional experience and behavior

indicates that a person's behavior is directly related to their emotional state (Ekman, 2003; Frijda, 1986; Lazarus, 1991; Plutchik, 2003). By paying close attention to predictors of another's emotional state, the perceiver can gain information that will allow guided interaction with that person. Recognizing that someone is angry, for example, will result in a different experience than recognizing that they are happy (Davidson, Ekman, Saron, Senulis, et al., 1990). The perceiver is guided against socially intuitive confrontations by the knowledge gained about other people's emotional states. Failure to obtain this information, on the other hand, can have negative consequences for social interactions, correspondence, and interrelationships (Johnston et al., 2008). Others' facial expressions frequently reveal information about their emotional state (Ekman & Friesen, 1971; Ekman, Sorenson, & Friesen, 1969; Izard, 1994; for a review see Elfenbein & Ambady, 2002). Inhibited emotional facial expression sensitivity can then harm social interactions and relationships. Imbalances in emotional expression sensitivity have been outlined in certain populations with poor social features (Johnston et al., 2008).

### **Review of the Literature in Pakistani Context**

Recently dark traits have also been investigated (Ashraf & Naz, 2021; Baloch et al., 2017; Dil & Kazmi, 2016; Fatima et al., 2019; Hassan, 2022; Irfan et al., 2022; Khan & Imran, 2019; Riaz et al., 2018) in Pakistan with some variables like criminal cognition, entrepreneurial intentions, psychopathic inclinations in offending youth, cognitive control, emotional intelligence, substance use disorder, interpersonal relationship satisfaction. Recently a scale to measure dark traits was developed in Pakistan (Akhtar et al., 2022).



## Chapter 3

### RESEARCH METHODOLOGY

#### 3.1 Research Design

There were two phases of the current study (the pilot study and the main study).

#### **Phase I: Urdu Translations and Pilot Testing of Study Measures**

In the first phase after taking permission from the authors, the scales were translated into the Urdu language as they were originally developed and standardized in the English language.

#### **Objectives.**

- 1 To translate the English version of The Short Dark Tetrad (Paulhus, et al., 2020), Criminogenic Thinking Profile (Mitchell & Tafrate, 2011), Moral Disengagement Scale (Caprara, Pastorelli e Bandura, 1995) into the Urdu language
- 2 To establish psychometric properties of Urdu-translated measures

#### **Urdu Translation of measures**

The Short Dark Tetrad (SD4), Criminogenic Thinking Profile (CTP), and Moral Disengagement Scale (MDS) have been created and standardized in the western culture, Therefore all these measures were translated into the Urdu language for the easiness of the local population. For this purpose stage-by-stage process given by Brislin (1970) was adopted.

***Step I: Experts Forward Translation.*** The Short Dark Tetrad (Paulhus, et al., 2020), Criminogenic Thinking Profile (Mitchell & Tafrate, 2011), and Moral Disengagement Scale (Caprara, Pastorell & Bandura, 1995) were given to three bilingual specialists with skills in Urdu and English dialects command at least an M. Phil degree in their particular area of study. Briefly, they were informed about the subject matter of the scale and know about psychology. They were provided all the instructions to translate the scale by keeping the

originality of the items.

**Step II: Appropriate Translation Selection by Committee.** The three interpretations given by specialists were investigated and looked into by four boards of trustees' individuals from the field of psychology who knew about the genuine implications conveyed by proclamations concerning the review. Their shared assent was considered for every interpretation. Best interpretations were chosen out of the three accessible other options.

**Step III: Back Translation of the Scales in English.** The acknowledged Urdu interpretations of every one of the three scales were given to one more gathering of specialists for reverse interpretations in the English language. This stage was used to assess the rightness of Urdu interpretations.

**Step IV: Back Translation Committee Approach.** Yet again the board was drawn closer and the retrogressive interpretations in the English language were contrasted and the first scales given by the creators. The examination was fundamental to check the sufficiency of the implications determined by individuals for the Urdu interpretations. All the Urdu translations were finalized.

### **3.2 Pilot Study**

Following the completion of scale translations, the scales to be used in this investigation were tested on a smaller delegate bunch to check the applicability of scales for the indigenous population and changes in the relationship between factors

**Sample.** Sixty university students from Islamabad and Rawalpindi ranging in age from 17 to 25 (M= 20.7; SD= 1.65) years were taken as pilot samples. The pilot study subjects were both males (n= 30) and females (n= 30) BS students (n= 60). These respondents were enlightened about the purpose of the review, and their knowledge was gained.

### **Measures**

Following measures were administered

1. The Short Dark Tetrad (Paulhus, Trapnell, Jones, et al., 2020)
2. Criminogenic Thinking Profile (Mitchell & Tafrate, 2011)
3. Moral Disengagement Scale (Caprara, Pastorelli e Bandura, 1995)
4. Reading the Mind in the Eye test (Simon Baron-Cohen, 2001)

**Procedure.** During the pilot study, there was a lockdown situation due to COVID-19 infection in the country therefore only a web-based survey approach was used for data collection in the pilot study. The web-based survey included a permission form with a survey of the study's meaning, motivation, categorization confirmation, the guarantee of protection, and an arrangement of instructions to be exhibited at the university if the participants endure ridicule or emotional distress A demographic form and all of the scales that should have been utilized in this research's core query were also provided. The survey took roughly 25 minutes to complete.

**Results.** First and foremost, to test the dependability of the measures we wanted to use in the primary study of this research, descriptive statistics and reliability analyses were performed. Then, to assess the direction of the relationship between the variables under examination, a correlation analysis was performed. The following are the findings of various studies.

**Table 3.1**

*Descriptive Statistics and Alpha Reliability Coefficient of Study Variables in the Pilot Study (N=60)*

Variables	k	M	SD	$\alpha$	Range		Skewness	Kurtosis
					Actual	Potential		
Machiavellianism	7	23.25	4.26	.60	14-35	7-35	.19	-.21
Narcissism	7	22.3	2.75	.54	16-31	7-35	.39	1.45
Psychopathy	7	21.65	4.21	.59	11-31	7-35	-.25	.12
Sadism	7	15.43	5.89	.78	7-31	7-35	.63	.01
CTP	65	130.38	24.15	.92	86-199	65-260	.42	.17
Inability to cope	7	14.76	3.16	.55	8-24	7-28	-.357	-.450

Emotionally Disengaged	6	16.56	3.90	.69	7-24	6-24	-.486	.398
Demand for Excitement	9	15.15	4.82	.58	9-29	9-36	.836	.189
Poor Judgment	9	15.66	5.37	.86	9-27	9-36	.394	-1.100
Parasitic	4	7.10	2.56	.68	4-14	4-16	.617	-.267
Justifying	6	10.45	3.73	.77	6-21	6-24	.855	-.073
Grandiosity	7	18.15	4.07	.73	7-27	7-28	-.461	.834
Disregard of others	14	25.26	7.47	.87	14-46	14-56	.876	.489
MDS	32	79.53	16.17	.86	46-122	32-160	.33	.45
Moral Justification	4	13.35	2.75	.50	6-19	4-20	-.480	.202
Attribution of Blame	4	11.40	3.02	.51	6-20	4-20	.415	-.005
Dehumanization	4	8.55	3.58	.76	4-18	4-20	.612	-.195
Distortion of Consequence	4	9.31	3.20	.58	4-17	4-20	-.070	-.509
Displacement of Responsibility	4	10.43	3.30	.60	4-16	4-20	-.318	-.667
Diffusion of Responsibility	4	11.43	2.93	.50	4-16	4-20	-.632	.533
Euphemistic Labeling	4	8.91	3.29	.63	4-16	4-20	.373	-.738
Advantageous Comparison	4	8.00	3.36	.78	4-16	4-20	.497	-.760
RMET	37	18.21	5.98	.77	4-28	0-37	-.377	-.488

Note. k= number of items, CTP=Criminogenic Thinking Profile, MDS= moral disengagement scale, RMET= Reading the mind in the eye test.

The number of components for each scale and its equivalent sub-scales is shown in Table 3.2. Cronbach -reliability values for all scales utilized in the primary study of this research comprised mean, standard deviation, actual and projected range, skewness, and kurtosis. Furthermore, the skewness and kurtosis values for these notions are within allowable levels (Gravetter & Wallnow, 2012). As a consequence, it was thought that the scales may be used with the native sample.

### 3.3 Item total correlation

**Table 3.2**

*Item total correlation of The Short Dark Tetrad (N=60)*

Item No.	$\gamma$	Item No.	$\gamma$
Machiavellianism		Narcissism	
1	.33**	8	.57**
2	.51**	9	.31*
3	.59**	10	.45**
4	.41**	11	.41**
5	.51**	12	.40**
6	.52**	13	.29*
7	.54**	14	.42**
Psychopathy		Sadism	
15	.50**	22	.69**
16	.49**	23	.70**
17	.69**	24	.48**
18	.34**	25	.80**
19	.65**	26	.65**
20	.49**	27	.67**
21	.35**	28	.60**

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

The table indicates the internal consistency values concerning the item-to-item correlation of The Short Dark Tetrad. It illustrates that all items are significantly positively correlated.

**Table 3.3**

*Item Total Correlation Of Criminogenic Thinking Profile (N=60)*

Item No.	$\gamma$	Item No.	$\gamma$
1	.37**	34	.66**
2	.32**	35	.53**
3	.37**	36	.38**
4	.41**	37	.49**
5	.63**	38	.56**
6	.47**	39	.58**
7	.27**	40	.54**
8	.53**	41	.62**
9	.64**	42	.53**
10	.38**	43	.55**
11	.32**	44	.27**
12	.27*	45	.44**
13	.40**	46	.29*

14	.63**	47	.31**
15	.62**	48	.41**
16	.66**	49	.39**
17	.55**	50	.55**
18	.58**	51	.31**
19	.54**	52	.49**
20	.28*	53	.31**
21	.40**	54	.58**
22	.53**	55	.59**
23	.32*	56	.57**
24	.50**	57	.36**
25	.59**	58	.51**
26	.57**	59	.56**
27	.55**	60	.69**
28	.38**	61	.52**
29	.62**	62	.61**
30	.59**	63	.38**
31	.50**	64	.58**
32	.61**	65	.66**
33	.45**		

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

The table indicates the internal consistency values concerning the item-to-item correlation of the Criminogenic Thinking Profile. It illustrates that all items of the scale are significantly positively related to the total scores of the scale.

**Table 3.4**

*Item Total Correlation Of Moral Disengagement Scale (N=60)*

Item No.	$\gamma$	Item No.	$\gamma$
1	.33**	17	.35**
2	.30**	18	.48**
3	.41**	19	.56**
4	.33**	20	.58**
5	.65**	21	.43**
6	.45**	22	.32**
7	.31**	23	.30*
8	.45**	24	.36**
9	.61**	25	.56**
10	.57**	26	.65**
11	.60**	27	.40**
12	.53**	28	.39**
13	.55**	29	.62**
14	.35**	30	.54**

15	.59**	31	.60**
16	.39**	32	.68**

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

The table indicates the internal consistency values concerning the item-to-item correlation of the Moral Disengagement Scale. It illustrates that all items are significantly positively correlated.

**Table 3.5**

*Correlation among Dark Traits, Moral Disengagement, Criminal Cognition, and Emotion Recognition (N=60)*

	SD4	MDS	CTP	RMET
SD4	-	.508**	.365**	-.134
MDS		-	.670**	-.021
CTP			-	-.078
RMET				-

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

Note. SD4= Dark Traits, MDS= Moral Disengagement, CTP= Criminal Cognition, Emotion Recognition.

The results of the Table exhibit the correlation analysis of the study variables. It is evident from the above table, that there is a significant positive relationship between dark traits, criminal cognition, and moral disengagement. Whereas there emotion recognition is non-significantly related to other study variables but the direction of the relationship is expectedly according to the literature.

### 3.4 Main Study

The main study of the present research was conducted to test the research hypothesis.

#### Population

For the main study, 452 students from Rawalpindi and Islamabad universities were recruited utilizing a convenient sampling technique. The inclusion criterion comprises BS students in the age range of 17-25 years.

**Table 3.6***Demographic Characteristics for Main Study (N=452)*

<b>Variables</b>	<i>f (%)</i>	<b>Mean (SD)</b>
<b>Age</b>		21.10(1.66)
<b>Gender</b>		
Male Young Adults	229(50.7)	
Female Young Adults	223(49.3)	
<b>Education</b>		
BS	452(100)	

*f* = Frequency, %= Percentage, SD= Standard Deviation

### **3.5 Research Instruments**

#### **Demographic sheet**

The demographic sheet consists of student id, age, gender, and education.

#### **The Short Dark Tetrad (SD4)**

The Short Dark Tetrad (Paulhus & Williams, 2020) has four subscale inventories, each with seven items. The 28-item SD4 was administered with euphemistic titles for each subscale: special for narcissism, clever for Machiavellianism, wild for psychopathy, and mean for sadism. (Paulhus, Delroy L., 2020) The goal was to eliminate defensiveness while preserving the core of each identity (Hogan & Warrenfeltz, 2007).

A 5-point Likert scale was used to score the items from 1 (strongly disagree), to 5 (strongly agree). It consists of four summed scales: (a) 7-Narcissism items (e.g. “I have some exceptional qualities), (b) 7-Machiavellianism items (e.g. “Flattery is a good way to get people on your side), (c) 7-Psychopathy items (e.g. “People who mess with me always regret it”) (d) 7-Sadism items (e.g. “I know how to hurt someone with words alone). Gender differences in effect size ranged from .39 for narcissism to 1.07 for sadism, with males scoring higher on all four subscales. The subscale inter-correlations range from .20 to .51. Pertaining out the acquiescence index had little effect on subscale inter-correlations, now



ranging from .16 to .49.

### **Criminogenic Thinking Profile (CTP)**

Damon Mitchell and Raymond Chip Tafrate created CTP in 2011. On the subject of criminal thinking, broad categories of thinking processes listed from CBT (e.g., low frustration tolerance, exaggerations) and the criminal thinking literature (e.g., underrating risk, neutralization) were addressed, as well as the archetypical attributes of psychopathy defined by Cleckley (1964) and Hare (1996).

Following each question, CTP is a 4-point Likert-type scale<sup>1</sup> (strongly disagree), to 4 (strongly agree). with 8 subscales that are (a) Disregard of others-14 items (e.g. “ I don’t worry about people that I have hurt”), (b) Demand for excitement-9 items (e.g. “ It’s OK to cut in front of a line of people if you are in a hurry”), (c) poor judgment -9 items (e.g. “ I don’t need an education because I will always find ways to make money), (d) Emotionally Disengaged-6 items (e.g. “If I show too much emotion people will take advantage of me”), (e) Parasitic/Exploitive-4 items (e.g. “It doesn’t make sense to work full-time if you can get on a government program”), (f) Justifying-6 items (e.g. “ Breaking the law is no big deal everybody does it”), (g) Inability to Cope -7 items (e.g. “ When I don’t understand things I give up”), (h) Grandiosity-7 items (e.g. “ I am destined for greatness).

Alpha co-efficient of scale is  $\alpha = .20-.51$ . Inter-correlations between the CTP Total Score and the subscales are statistically significant but not high enough to show subscale redundancy. Each subscale had the highest association with the overall score. Except for Grandiosity, the inter-correlations between the subscales ranged from .36 to .76. Grandiosity and the other subscales had minor to moderate correlations varying from .15 to .37 (Mitchell & Tafrate, 2011).

### **Moral Disengagement Scale**

The moral disengagement scale was developed by Caprara, Pastorelli e Bandura in

1995. It is a 5-point Likert-type scale of 1 (strongly disagree) to 5 (strongly agree). Alpha coefficient of scale is  $\alpha = .82$ . The scale consists of 32 items with 8 sub scales that are (a) moral justification-4 items (e.g. “ It is all right to fight to protect your friends”), (b) attribution of blame- 4 items (e.g. “ If people are careless where they leave their things it is their fault if they get stolen”), (c) dehumanization-4 items (e.g. “ Some people deserve to be treated like animals”), (d) distortion of consequences-4 items (e.g. “ Teasing someone does not really hurt them”), (e) displacement of responsibility-4 items (e.g. “ Person cannot be blamed for using bad words when all their friends do it”), (f) diffusion of responsibility- 4 items (e.g. “ If a group decide together to do something harmful is unfair to blame any individual in the group for it”), (g) euphemistic labeling-4 items (e.g. “ To hit obnoxious classmate is just giving them a lesson”), (h) advantageous comparison-4 items (e.g. “ It is okay to insult a classmate because beating him/her is worse”).

### **Reading the Mind in the eye test (RMET)**

The Reading the Mind in the Eyes Test (RMET) is one of the most well-known emotion recognition tests (RME-T). The original RME-T has been widely used to explore how people perceive complicated emotional emotions from adult faces' eye regions. Simon Baron-Cohen created it in 2001. The RME-T, on the other hand, can only be used to explore inter-individual variations in complex emotion detection when processing adult faces. Participants were asked to identify emotional expressions by picking labels that described different emotional states. The emotional expressions in the eye areas were taken from magazine images of young and senior folks.

The labels indicated either emotional states that matched the expressed sentiments or emotional states that did not match the reported feelings. The resemblance or mismatch between a specific condition and a phrase was assessed using a consensus rating. The researchers were able to create a test version that was sensitive enough to detect changes in

complicated emotion identification during the processing of adult faces by associating each eye area with labels indicating states that matched or did not match the expressions. The test version may be utilized to distinguish between those who have impaired emotion recognition abilities and those who have intact emotion recognition abilities suggesting that it has appropriate psychometric qualities in terms of validity and reliability. For the 34-item list test  $\alpha = .69-.72$ .

### **3.6 Data Analysis**

The data analysis for the present study was conducted to attain the objectives and hypotheses of the study through IBM SPSS-21 and Process Macro 4.0. First of all, after data collection data cleaning, normality assumptions were checked. To establish psychometric properties descriptive analysis was conducted of study variables by reporting mean, standard deviation, skewness, and kurtosis. To check the suitability of the translated measures, Cronbach's alpha values were used for the reliability analysis. For demographic and other study variables, the mean and standard deviation was calculated for continuous variables, whereas frequency and percentages were calculated for categorical data. To explore the relationship among study variables correlation analysis was carried out. To find out the mediation and moderation, the regression analysis was used to find out the impact of study variables on each other and related assumptions were also analyzed. SPSS Process Macro 4.0 was used to carry out mediation and moderation analysis. For mediation model 4 and for moderation model 1 was used.

### **3.7 Research Ethics**

At first approval from BASR was taken for the current research and after taking permission from higher authorities of different universities of Rawalpindi and Islamabad was taken for data collection. Then the sample was brought closer to the accommodation, and each participant provided informed consent. Following that, by using a convenient sampling

technique available students were approached. The participants were given a demographic sheet along with informed consent in addition to each of the questions for which prior agreement from the authors was sought. The best way to complete the surveys was explained to the participants. It was explained to them that there are no right or wrong responses, that their responses would be classified, and that the information obtained will only be utilized for research purposes. Then the data were analyzed according to the nature of the data.

## Chapter 4

### ANALYSIS AND INTERPRETATION OF THE DATA

The purpose of this study was to investigate the relationship between Dark Traits and Criminal Cognition among university students. This study also sought to investigate the role of Moral Disengagement in mediating the link between Dark Traits and Criminal Cognition and their sub-domains. Another goal of the current study is to investigate how Emotion Recognition may be used to moderate the link between Dark Traits and Criminal Cognition and their sub-domains. The goal of this study also involves analyzing the variance in other demographic characteristics such as age and gender. The results of several investigations have been expressed in tables near to the essential interpretation of information.

#### Measuring Descriptive Analysis and Reliability Estimates

First of all, after checking the normality assumption and data scanning, descriptive analysis and alpha reliabilities of The Short Dark Tetrad, SD4 (Paulhus, et al., 2020), Criminogenic Thinking Profile (Mitchell & Tafra, 2011), Moral Disengagement Scale (Caprara, Pastorelli & Bandura, 1995), Reading the Mind in the Eye test (Simon Baron-Cohen, 2001), and all sub-scales of the aforementioned scales were calculated. The descriptive statistics and alpha reliabilities gave the following findings.

**Table 4.1**

*Descriptive Statistics and Alpha Reliability Coefficient of Study Variables in Main Study (N=452)*

Variables	k	M	SD	$\alpha$	Range		Skewness	Kurtosis
					Actual	Potential		
Machiavellianism	7	21.87	4.32	.64	7-35	7-35	-.116	.340
Narcissism	7	21.77	3.98	.67	7-34	7-35	-.385	1.571
Psychopathy	7	20.63	4.07	.69	7-32	7-35	-.306	.619
Sadism	7	16.36	5.32	.74	7-33	7-35	.243	-.419
CTP	65	137.72	26.40	.93	65-206	65-260	.221	-.187
Inability to cope	7	15.57	3.22	.66	7-27	7-28	.134	.225
Emotionally Disengaged	6	16.31	3.57	.74	6-24	6-24	-.425	.346

Demand for Excitement	9	16.53	5.24	.82	9-29	9-36	.533	-.723
Poor Judgment	9	16.50	5.81	.86	9-30	9-36	.376	-1.095
Parasitic	4	7.68	2.74	.73	4-16	4-16	.386	-.688
Justifying	6	11.52	3.90	.77	6-24	6-24	.504	-.514
Grandiosity	7	17.78	3.65	.68	7-28	7-28	-.418	1.006
Disregard of others	14	28.08	7.95	.87	14-55	14-56	.332	-.482
MDS	32	83.21	15.50	.87	31-135	32-160	.067	.260
Moral Justification	4	12.90	2.85	.72	4-20	4-20	-.098	-.005
Attribution of Blame	4	11.76	2.54	.67	4-20	4-20	-.114	.222
Dehumanization	4	9.58	3.54	.74	4-20	4-20	.166	-.591
Distortion of Consequence	4	9.98	3.36	.66	4-20	4-20	.154	-.358
Displacement of Responsibility	4	10.97	2.95	.70	4-20	4-20	.008	.276
Diffusion of Responsibility	4	11.56	2.78	.64	4-19	4-20	-.390	.666
Euphemistic Labeling	4	9.38	3.20	.69	4-18	4-20	.247	-.505
Advantageous Comparison	4	9.13	3.56	.77	4-19	4-20	.185	-.973
RMET	37	17.75	5.92	.78	4-32	0-37	0.07	-0.95

Note. k= number of items, MDS= moral disengagement scale, CTP= Criminogenic Thinking Profile, RMET= Reading the mind in the eye test.

Table 4.1 illustrates the descriptive statistics and alpha reliabilities of scale and their respective sub-scales. The scales and their sub-scales are having .64-.93 alpha reliabilities and the values of Skewness and kurtosis of all of the variables are in the acceptable range of -2 to +2 (Privitera, 2011) fulfilled the requirement of normality assumption, and further statistical investigation.

### **The Correlation Analysis of Study Variables and Domains**

Pearson Product Moment Correlation was used to see the relationship between study variables.

The research findings in Table 4.2 show the correlation among study variables and

their domains. It explained that dark traits i.e. narcissism, psychopathy, and sadism have a significant positive relationship ( $p < .01$ ,  $p < .05$ ) with criminal cognition, moral disengagement, and their domains. However, Machiavellianism has a negative relationship with criminal cognition and its domains and has a positive relationship with moral disengagement. Results also revealed that psychopathy and sadism have a significant negative relationship ( $p < .01$ ) with emotion recognition.

It revealed that there is a positive significant link between Machiavellianism and sub-domains of moral disengagement i.e moral justification, attribution of blame, and diffusion of responsibility, and a significant negative relationship with sub-domains of criminal thinking i.e poor judgment and disregard of others ( $p < .01$ ,  $p < .05$ ). There exists a non-significant positive relationship between Machiavellianism and sub-domains of criminal cognition i.e emotionally disengaged, grandiosity, moral disengagement, and its sub-domains i.e euphemistic labeling and emotion recognition, however, there is a non-significant negative relationship exist with criminal cognition and its sub-domains i.e demand for excitement, parasitic, justifying and sub-domains of moral disengagement i.e dehumanization, distortion of consequences and advantageous comparison.

**Table 4.2***Correlation among Dark Traits, Moral Disengagement, Criminal Cognition, and Emotion Recognition (N=452)*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1 Machiavellianism	-	.24**	.19**	-.01	-.05	-.05	.04	-.06	-.09*	-.07	-.02	.08	-.10*	.07	.25**	.11*	-.03	-.02	.03	.15**	.01	-.09	.05
2 Narcissism		-	.35**	.13**	.16**	.09	.16**	.09	.09*	.11*	.02	.34**	.07	.21**	.27**	.12*	.19**	.13**	.12**	.12**	.10*	.02	-.07
3 Psychopathy			-	.27**	.23**	.25**	.30**	.15**	.14**	.05	.05	.24**	.13**	.28**	.30**	.21**	.23**	.12*	.20**	.24**	.12*	.04	-.16**
4 Sadism				-	.63**	.39**	.07	.60**	.55**	.50**	.49**	.18**	.58**	.59**	-.04	.28**	.54**	.49**	.43**	.18**	.50**	.57**	-.42**
5 CTP					-	.63**	.25**	.85**	.83**	.76**	.81**	.42**	.87**	.66**	-.02	.29**	.58**	.52**	.49**	.18**	.61**	.67**	-.50**
6 Inability to cope						-	.39**	.47**	.39**	.40**	.43**	.22**	.43**	.51**	.09	.29**	.41**	.35**	.31**	.23**	.42**	.46**	-.30**
7 Emotionally Disengaged							-	-.02	-.06	.01	.05	.31**	.03	.16**	.16**	.22**	.06	.05	.13**	.26**	-.01	-.03	.05
8 Demand for Excitement								-	.77**	.64**	.68**	.18**	.75**	.58**	-.10*	.21**	.53**	.49**	.41**	.11*	.58**	.64**	-.50**
9 Poor Judgment									-	.67**	.69**	.19**	.69**	.51**	-.11*	.19**	.52**	.41**	.32**	.06	.53**	.61**	-.46**
10 Parasitic										-	.67**	.23**	.65**	.53**	-.04	.19**	.49**	.46**	.41**	.07	.50**	.57**	-.41**
11 Justifying											-	.21**	.69**	.56**	-.09*	.26**	.49**	.45**	.43**	.09*	.56**	.62**	-.44**
12 Grandiosity												-	.22**	.25**	.22**	.09*	.15**	.16**	.22**	.16**	.15**	.08	-.08
13 Disregard of others													-	.56**	-.09	.22**	.52**	.48**	.42**	.08	.56**	.63**	-.51**
14 MDS														-	.29**	.55**	.79**	.69**	.76**	.53**	.74**	.74**	-.43**
15 Moral Justification															-	.21**	.06	.00	.13**	.31**	-.02	-.09	.02
16 Attribution of Blame																-	.36**	.21**	.36**	.31**	.23**	.27**	-.17**
17 Dehumanization																	-	.58**	.55**	.27**	.55**	.58**	-.43**
18 Distortion of Consequence																		-	.49**	.19**	.56**	.55**	-.38**
19 Displacement of Responsibility																			-	.38**	.49**	.50**	-.28**
20 Diffusion of Responsibility																				-	.20**	.16**	-0.01
21 Euphemistic Labeling																					-	.71**	-.40**
22 Advantageous Comparison																						-	-.50**
23 RMET																							-

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

Note. CTP= Criminogenic Thinking Profile, MDS= Moral Disengagement Scale, RMET= Reading the mind in the eye test



Results also illustrate that there is a significant positive relationship exists between narcissism and criminal cognition and its sub-domains i.e emotionally disengaged, poor judgment, parasitic, grandiosity, moral disengagement, and its all sub-domains ( $p < .01$ ,  $p < .05$ ) except for advantageous comparison that has a non-significant positive relationship with narcissism along with sub-domains of Moral Disengagement i.e inability to cope, demand for excitement, justifying and disregard of others. Similarly, there is non-significant relationship exists between narcissism and emotion recognition.

Results of this analysis also revealed that psychopathy has a positively significant relationship with criminal cognition and is all sub-domains except with two i.e parasitic and justifying similarly with moral disengagement and its all sub-domains except advantageous comparison that has positively non-significant relationship on the other hand psychopathy and emotion recognition has a significant negative relationship. Similarly, results also show that Sadism has a significantly positive relationship with criminal cognition and all its sub-domains except emotionally disengaged and moral disengagement and all its sub-domains except moral justification, however, there is a significant negative relationship that exists between sadism and emotion recognition.

The results in the table also revealed the relationship between criminal cognition and moral disengagement and their associated sub-domains. It illustrates that there exists a positive significant relationship between criminal cognition with moral disengagement and all its sub-domains except moral justification which has a non-significant negative relationship. Similarly, inability to cope, demand for excitement, and justifying have a significant positive relationship with moral disengagement, and all its sub-domains except moral justification that has a significant negative relationship. Poor judgment and parasitism have a significant positive relationship that exists with moral disengagement and its all sub-domains except moral justification which has a negatively significant relationship and diffusion of

responsibility which has a positive non-significant relationship. Grandiosity has a significant positive relationship with moral disengagement with all its sub-domains except advantageous comparison that has a non-significant positive relationship. There is a positive significant relationship that exists between disregard for others and moral disengagement and all its sub-domains except moral justification have a non-significant negative and diffusion of responsibility that has a positive non-significant relationship. Similarly Emotionally disengaged has a significantly positive relationship with moral disengagement and all its sub-do, aims except dehumanization and distortion of consequences that have non-significant positive and euphemistic labeling and advantageous comparison has a non-significant negative relationship.

On the other hand results of this table also showed that emotion recognition has a significant negative relationship with criminal cognition and its all sub-domains except emotionally disengaged which has a significant positive relationship and grandiosity which has a non-significant negative relationship.

### Comparisons based on Demographic Variables

For group differences, an independent t-test was calculated. The table below shows the findings of an analysis based on gender differences in study variables.

**Table 4.3**

*Mean differences based on gender for each scale and its sub-scales (N=452)*

Variables	Males		Females		t(450)	p	95% CI		Cohen's d
	M	SD	M	SD			LL	UL	
Machiavellianism	21.81	4.63	21.93	3.99	-.28	.776	-.91	.68	
Narcissism	21.82	3.78	21.73	4.19	.24	.811	-.64	.82	
Psychopathy	21.06	3.75	20.19	4.34	2.27	.023	.11	1.61	.21
Sadism	17.55	5.33	15.13	5.03	4.97	.000	1.46	3.38	.47
CTP	140.9	27.32	134.4	25.05	2.64	.008	1.68	11.38	.25
Inability to cope	15.48	3.23	15.68	3.21	-.66	.508	-.79	.39	
Emotionally Disengaged	15.82	3.69	16.82	3.37	-3.00	.003	-1.65	-.34	.28

Demand for Excitement	17.31	5.42	15.72	4.94	3.25	.001	0.63	2.55	.31
Poor Judgment	17.40	5.94	15.58	5.55	3.36	.001	.75	2.88	.31
Parasitic	8.02	2.75	7.34	2.70	2.66	.008	.18	1.19	.32
Justifying	12.07	3.91	10.95	3.81	3.06	.002	.39	1.82	.25
Grandiosity	17.76	3.62	17.81	3.70	-.15	.880	-.72	.62	
Disregard of others	29.30	8.04	26.82	7.68	3.34	.001	1.02	3.93	.32
MDS	84.89	15.51	81.49	15.34	2.34	.020	.54	6.25	.22
Moral Justification	12.86	2.91	12.93	2.80	-.25	.800	-.59	.46	
Attribution of Blame	11.76	2.40	11.76	2.69	.008	.994	-.46	.47	
Dehumanization	9.99	3.46	9.17	3.58	2.48	.013	.17	1.47	.23
Distortion of Consequence	10.39	3.18	9.55	3.49	2.66	.008	.21	1.45	.25
Displacement of Responsibility	11.17	2.86	10.77	3.03	1.46	.142	-.13	.95	
Diffusion of Responsibility	11.48	2.57	11.65	2.98	-.68	.495	-.69	.33	
Euphemistic Labeling	9.83	3.29	8.91	3.04	3.07	.002	.33	1.50	.29
Advantageous Comparison	9.57	3.64	8.68	3.43	2.65	.008	.23	1.54	.25
RMET	17.09	5.49	18.42	6.26	-2.41	.016	-2.42	-0.25	.23

Note. CTP= Criminogenic Thinking Profile, MDS= Moral Disengagement Scale, RMET= Reading the mind in the eye test.

The table shows that there are significant differences based on gender in dark traits, criminal cognition, and moral disengagement along with the sub-domains of these variables and emotion recognition among university students. Results in the table reveal that dark traits such as psychopathy and sadism are significantly higher among males as compared to females although non-significant gender differences are found in Machiavellianism and narcissism. Similarly, the mean scores of male students are higher on criminal cognition along with its sub-domains except emotionally disengaged which is higher in females than males.

Results also show that moral disengagement and its sub-domains i.e. dehumanization, distortion of consequence, euphemistic labeling, and advantageous comparison mean scores

are significantly higher in males as compared to females. On the other hand, emotion recognition turned out to be significantly higher among females than in males.

### Regression Analysis of Study Variables

**Table 4.4**

*Multiple Regression Analysis on Criminal Cognition by Dark Traits (N=452)*

	Criminogenic Thinking			95% CI	
	<i>B</i>	<i>SE B</i>	$\beta$	<i>LL</i>	<i>UL</i>
Machiavellianism	-0.49	0.23	-0.08*	-0.94	-0.03
Narcissism	0.59	0.26	0.09*	0.074	1.10
Psychopathy	0.35	0.26	0.05	-0.16	0.87
Sadism	2.97	0.188	0.60***	2.60	3.34
$R = 0.64, R^2 = 0.45, (F = 76.36^{***})$					

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

Results in Table 4.4 show the impact of dark traits i.e Machiavellianism, narcissism, psychopathy, and sadism on criminal cognition. Dark traits like sadism ( $B = 2.97, \beta = .60, p < .001$ ) and narcissism ( $B = .59, \beta = .09, p < .05$ ) are positive predictors of criminal cognition whereas Machiavellianism appeared as a significant negative predictor ( $B = -.49, \beta = -.08, p < .05$ ). Psychopathy appears as a non-significant predictor of criminal cognition. Dark traits jointly explained 45% of the variance in the criminal cognition ( $\Delta R^2 = 0.45, F = 76.36, p < .001$ ). Among all dark traits, sadism emerged as the strongest positive predictor of criminal cognition in university students suggesting that one unit increase in sadism will result in a 2.97 unit increase in criminal cognition.

**Table 4.5**  
*Multiple Regression Analysis on Criminal Cognition by Dark Traits (N=452)*

	Inability to cope					Emotionally Disengaged				
	<i>B</i>	<i>SE B</i>	$\beta$	95% CI		<i>B</i>	<i>SE B</i>	$\beta$	95% CI	
				<i>LL</i>	<i>UL</i>				<i>LL</i>	<i>UL</i>
Machiavellianism	-0.06	0.03	-0.08	-0.12	0.01	-0.02	-0.01	-0.03	-0.10	0.05
Narcissism	-0.00	0.04	-0.00	-0.07	0.07	0.06	0.04	0.07	-0.03	0.15
Psychopathy	-0.00	0.03	0.17***	0.06	0.21	0.25	0.04	0.29***	0.17	0.34
Sadism	0.21	0.03	0.35***	0.16	0.26	-0.01	0.03	-0.02	-0.07	0.05
	$R = 0.43, R^2 = 0.18, (F = 25.27^{***})$					$R = 0.31, R^2 = 0.10, (F = 11.86^{***})$				
	Demand for Excitement					Poor Judgment				
Machiavellianism	-0.07	0.05	-0.06	-0.17	0.02	-0.13	0.05	-0.09*	-0.24	0.50
Narcissism	0.04	0.05	0.03	-0.06	0.15	0.08	0.06	0.05	-0.05	0.20
Psychopathy	-0.02	0.05	-0.01	-0.12	0.09	-0.00	0.06	-0.00	-0.13	0.12
Sadism	0.58	0.04	0.59***	0.50	0.66	0.60	0.04	0.54***	0.50	0.68
	$R = 0.60, R^2 = 0.35, (F = 61.30^{***})$					$R = 0.56, R^2 = 0.31, (F = 50.31^{***})$				

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

Results in table revealed the impact of dark traits i.e Machiavellianism, narcissism, psychopathy, and sadism on dimensions of criminal cognition. Findings indicate that dark traits of personality together estimated 18% of the variance in the inability to cope dimension of criminal cognition ( $\Delta R^2 = 0.18$ ,  $F = 25.27$ ,  $p < .001$ ). Finding highlighted sadism as the strongest predictor ( $B = .21$ ,  $\beta = .35$ ,  $p < .001$ ) of inability to cope state that one unit increase in sadism will increase .21 unit in the inability to cope dimension of criminal cognition. Psychopathy is also a significant predictor ( $B = .00$ ,  $\beta = .17$ ,  $p < .001$ ) of inability to cope. To predict emotional disengagement among university students the model fit ( $\Delta R^2 = .10$ ), revealed the significant overall relationship of dark traits ( $F = 11.86$ ,  $p < .001$ ) by contributing 10% of the variance in the emotionally disengaged dimension of criminal cognition. Psychopathy appeared to be the strongest predictor ( $B = .25$ ,  $\beta = .29$ ,  $p < .001$ ) of emotionally disengaged showing that one unit increase in psychopathy will increase .25 units in emotional disengagement. For demand for excitement dark traits collectively explained 35% variance with significant F ratio ( $\Delta R^2 = .35$ ,  $F = 61.30$ ,  $p < .001$ ). Findings explained that sadism is the strongest significant predictor of the demand for excitement dimension of criminal cognition ( $B = .58$ ,  $\beta = .59$ ,  $p < .001$ ) suggest that one unit increase in sadism also increases .58 units of demand for excitement as the dimension of criminal cognition. The value for adjusted  $R^2$  for poor judgment indicates that all the dark traits explained up to 31% of the variance ( $\Delta R^2 = .31$ ,  $F = 50.31$ ,  $p < .001$ ). Results illustrate that sadism is the strongest positive predictor ( $B = .60$ ,  $\beta = .54$ ,  $p < .001$ ) of poor judgment proposing that one unit increase in sadism will increase .60 units of poor judgment as to the dimension of criminal cognition

**Table 4.6**  
*Multiple Regression Analysis on Criminal Cognition by Dark Traits (N=452)*

	Parasitic					Justifying				
	<i>B</i>	<i>SE B</i>	$\beta$	95% CI		<i>B</i>	<i>SE B</i>	$\beta$	95% CI	
				<i>LL</i>	<i>UL</i>				<i>LL</i>	<i>UL</i>
Machiavellianism	-0.04	0.03	-0.07	-0.09	0.01	0.01	0.04	0.00	-0.07	0.08
Narcissism	0.06	0.03	0.09*	0.00	0.12	-0.01	0.04	-0.01	-0.10	0.07
Psychopathy	-0.07	0.03	-0.10*	-0.13	-0.01	-0.08	0.04	-0.08*	-0.17	0.00
Sadism	0.27	0.02	0.52***	0.23	0.31	0.38	0.03	0.51***	0.32	0.44
	$R = 0.52, R^2 = 0.27, (F = 41.15^{***})$					$R = 0.50, R^2 = 0.25, (F = 36.70^{***})$				
	Grandiosity					Disregard of others				
Machiavellianism	-0.01	0.04	-0.01	-0.08	0.07	-0.18	0.07	-0.10*	-0.33	-0.04
Narcissism	0.27	0.04	0.29***	0.18	0.35	0.05	0.08	0.02	-0.12	0.21
Psychopathy	0.10	0.04	0.11*	0.01	0.18	-0.03	0.08	-0.01	-0.19	0.13
Sadism	0.07	0.03	0.11*	0.01	0.14	0.86	0.06	0.58***	0.75	0.98
	$R = 0.38, R^2 = 0.14, (F = 18.73^{***})$					$R = 0.59, R^2 = 0.34, (F = 58.42^{***})$				

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

The table shows the impact of dark traits, such as Machiavellianism, narcissism, psychopathy, and sadism, affecting dimensions of criminal cognition. Findings illustrate that dark traits collectively explained 27% variance in the parasitic dimension of criminal cognition ( $\Delta R^2 = .27$ ,  $F = 41.15$ ,  $p < .001$ ). Sadism appeared as the strongest positive predictor ( $B = .27$ ,  $\beta = .52$ ,  $p < .001$ ) of the parasitic dimension of criminal cognition will increase by .27 units if one unit of sadism will increase. Whereas one unit increase in narcissism will increase .06 unit in the parasitic dimension as narcissism is also a significant positive predictor ( $B = .06$ ,  $\beta = .09$ ,  $p < .05$ ) of the parasitic dimension of criminal cognition. On the other hand, psychopathy is the significant negative predictor of the parasitic dimension ( $B = -.07$ ,  $\beta = -.10$ ,  $p < .05$ ). Findings suggest that one unit increase in psychopathy will decrease .07 units in the parasitic dimension of criminal cognition. The values for adjusted  $R^2$  for justifying the dimension of criminal cognition indicate that dark traits jointly explained up to 25% of the variance ( $\Delta R^2 = .25$ ,  $F = 36.70$ ,  $p < .001$ ). Results revealed that sadism is the strongest positive predictor ( $B = .38$ ,  $\beta = .51$ ,  $p < .001$ ) of justifying dimension proposing that one unit increase in sadism will increase .38 units in justifying dimension of criminal cognition. Whereas psychopathy is the significant negative predictor ( $B = -.08$ ,  $\beta = -.08$ ,  $p < .05$ ) suggesting that one unit increase in psychopathy will decrease .08 units in justifying dimension of criminal cognition. To predict grandiosity among university students the model fit ( $\Delta R^2 = .14$ ), revealed a significant overall relationship of dark traits ( $F = 18.73$ ,  $p < .001$ ) by contributing 14% of the variance in the grandiosity dimension of criminal cognition. Beta values indicate that narcissism is the strongest positive predictor ( $B = .27$ ,  $\beta = .29$ ,  $p < .001$ ) of grandiosity suggesting that one unit increase in narcissism will increase .27 units in grandiosity. Beta weight for psychopathy ( $B = .10$ ,  $\beta = .11$ ,  $p < .05$ ) reflect that one unit increase in psychopathy will also increase .10 units in grandiosity. Similarly, sadism is also



a significant predictor ( $B = .07$ ,  $\beta = .11$ ,  $p < .05$ ) of grandiosity stating that one unit increase in sadism will increase .07 units in grandiosity. To disregard others' dark traits collectively contributed up to 34% of the total variance ( $\Delta R^2 = .34$ ,  $F = 58.42$ ,  $p < .001$ ). Findings indicate that sadism is the strongest positive predictor of disregard for others ( $B = .86$ ,  $\beta = .58$ ,  $p < .001$ ) suggesting that one unit increase in sadism will increase .86 units in disregard of others, whereas Machiavellianism is the significant negative predictor ( $B = -.18$ ,  $\beta = -.10$ ,  $p < .05$ ) of disregard others explained that one unit increase in Machiavellianism will decrease .18 units in disregard of others dimension of criminal cognition.

**Table 4.7**

*Multiple Regression Analysis on Moral Disengagement by Dark Traits (N=452)*

	Moral Disengagement			95% CI	
	<i>B</i>	<i>SE B</i>	$\beta$	<i>LL</i>	<i>UL</i>
Machiavellianism	.13	.14	.04	-.14	.40
Narcissism	.39	.16	.10*	.08	.70
Psychopathy	.35	.16	.09*	.04	.66
Sadism	1.60	.11	.55***	1.38	1.83
$R = 0.61$ , $R^2 = 0.37$ , ( $F = 66.38$ ***)					

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

Results in Table show the impact of dark traits i.e. Machiavellianism, narcissism, psychopathy, and sadism on moral disengagement. Dark traits i.e. narcissism ( $B = 1.60$ ,  $\beta = .10$ ,  $p < .05$ ), psychopathy ( $B = .35$ ,  $\beta = .09$ ,  $p < .05$ ) and sadism ( $B = 1.60$ ,  $\beta = .55$ ,  $p < .001$ ) appeared as positive predictor of moral disengagement. Machiavellianism appeared as a non-significant predictor of moral disengagement. Dark traits jointly explained 37% of the variance in the moral disengagement ( $\Delta R^2 = 0.37$ ,  $F = 66.38$ ,  $p < .001$ ). Among all dark traits, sadism emerged as the strongest positive predictor of moral disengagement in university students suggesting that one unit increase in sadism will result in a 1.60 units increase in moral disengagement.

**Table 4.8**

*Multiple Regression Analysis on Criminal Cognition by Moral Disengagement (N=452)*

<b>Criminal Cognition</b>										
			95% CI							
	<i>B</i>	<i>SE B</i>	$\beta$			<i>LL</i>			<i>UL</i>	
Moral Disengagement	1.13	.06	.66***			1.01			1.25	
<i>R = .66, R<sup>2</sup> = .44, (F = 354.27***)</i>										
<b>Inability to cope</b>					<b>Emotionally Disengaged</b>					
			95% CI						95% CI	
	<i>B</i>	<i>SE B</i>	$\beta$	<i>LL</i>	<i>UL</i>	<i>B</i>	<i>SE B</i>	$\beta$	<i>LL</i>	<i>UL</i>
Moral Disengagement	.11	.008	.51***	.09	.12	.04	.01	.16**	.02	.06
<i>R = .51, R<sup>2</sup> = .26, (F = 155.03***)</i>					<i>R = .16, R<sup>2</sup> = .03, (F = 11.39***)</i>					
<b>Demand for Excitement</b>					<b>Poor Judgment</b>					
Moral Disengagement	.195	.013	.575***	.17	.22	.19	.02	.51***	.16	.22
<i>R = .58, R<sup>2</sup> = .33, (F = 222.29***)</i>					<i>R = .51, R<sup>2</sup> = .26, (F = 159.40***)</i>					
<b>Parasitic</b>					<b>Justifying</b>					
Moral Disengagement	.095	.007	.53***	.08	.11	.14	.01	.56***	.12	.16
<i>R = .53, R<sup>2</sup> = .29, (F = 179.63***)</i>					<i>R = .56, R<sup>2</sup> = .32, (F = 208.25***)</i>					
<b>Grandiosity</b>					<b>Disregard of others</b>					
Moral Disengagement	.06	.01	.25***	.04	.08	.29	.02	.56***	.25	.33
<i>R = .25, R<sup>2</sup> = .06, (F = 28.76***)</i>					<i>R = .56, R<sup>2</sup> = .32, (F = 208.80***)</i>					

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

Results in the table revealed the impact of moral disengagement on criminal cognition and its domains. It shows that Moral disengagement is the strongest predictor of ( $B= 1.13$ ,  $\beta=.66$ ,  $p< .001$ ) of criminal cognition and collectively estimated 44% of the variance and states that one unit increase in moral disengagement will increase 1.13 units in criminal cognition. Findings also revealed the impact of moral disengagement on each domain of criminal cognition and shows that moral disengagement is the strongest and most significant ( $p< .01$ ,  $.001$ ) predictor of each of the domain of criminal cognition among which moral disengagement explain 33% ( $\Delta R^2=.33$ ) variance in demand for excitement, 32% ( $\Delta R^2=.32$ ) variance in justifying and disregard of others, 26% ( $\Delta R^2=.26$ ) variance in an inability to cope and poor judgment, 29% ( $\Delta R^2=.29$ ) variance in parasitic, 3% ( $\Delta R^2=.03$ ) variance in emotionally disengaged and 6% ( $\Delta R^2=.06$ ) variance in grandiosity dimension of criminal cognition.

### **Mediation Analysis**

The mediation analysis was used to look into the impact of a third variable on the nature of the correlations between the independent and dependent variables. When a third variable exists, it functions as a connection between the independent and dependent variables, leading to an interaction variable of this study (Hayes, 2013). This study was carried out in SPSS using Andrew Hayes' Process Macro to identify the mediation by moral disengagement on the association between dark traits and criminal cognition. The Process Model 4 was used for basic mediation, using 5000 bootstrapped samples and a 95 percent confidence interval. Only the significant findings have been tabulated, together with the appropriate explanations for the data results collected.

**Table 4.9**

*Simple Mediation of the effect of Dark Traits and Criminal Cognition by Moral Disengagement (N = 452)*

Predictors	Criminal cognition				Inability to cope				Emotionally Disengaged			
	Model 1	Model 2	95% CL		Model 1	Model 2	95% CL		Model 1	Model 2	95% CL	
	B	B	LL	UL	B	B	LL	UL	B	B	LL	UL
Constant	114.02**	40.74**	27.87	53.61	14.08**	7.13**	5.32	8.95	13.23*	11.28**	9.00	13.5
Narcissism	1.09**	.17	-.30	.64	.07	-.02	-.08	.05	.14**	.12*	.03	.20
Moral Disengagement		1.12**	1.00	1.24		.11**	.09	.12		.03*	.01	.05
Indirect effect		.92	.49	1.39		.09	.05	.14		.02	.00	.05
R <sup>2</sup>	.03	.44			.01	.26			.03	.04		
F	12.50	177.19			3.28	77.54			11.55	9.61		
Predictors	Demand for Excitement				Poor Judgment				Parasitic			
Constant	13.97**	1.09	-	3.89	13.44**	.84	-	4.10	6.12**	-.09	-1.61	1.42
Narcissism	.12	-.04	1.70	.06	.14*	-.02	2.42	.10	.07**	-.01	-.06	.05
Moral Disengagement		.20**	.17	.22		.19**	.16	.22		.09**	.08	.11
Indirect effect		.16	.09	.24		.16	.09	.24		.08	.04	.12
R <sup>2</sup>	.01	.33			.01	.26			.01	.29		
F	3.62	111.48			4.23	79.58			4.99	89.64		

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

**Table 4.10**

*Simple Mediation of the effect of Dark Traits and Criminal Cognition by Moral Disengagement (N = 452)*

Predictors	Justifying				Grandiosity				Disregard for Others			
	Model 1	Model 2	95% CL		Model 1	Model 2	95% CL		Model 1	Model 2	95% CL	
	B	B	LL	UL	B	B	LL	UL	B	B	LL	UL
Constant	11.01**	1.41	-.67	3.50	10.98**	8.19**	5.98	10.39	25.13**	5.86*	1.58	10.14
Narcissism	.02	-.10*	-.17	-.02	.31**	.28**	.20	.36	.14	-.11	-.26	.05
Moral Disengagement		.15**	.13	.17		.04**	.02	.06		.29**	.25	.33
Indirect effect		.12	.06	.18		.04	.01	.06		.24	.13	.36
R <sup>2</sup>	.00	.33			.12	.15			.00	.32		
F	.26	108.46			59.00	38.80			2.09	105.47		

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

Tables 4.9 and 4.10 show simple mediation analyses for the association between dark traits (narcissism as a predictor variable) and criminal cognition and its subdomains as the outcome variable, whereas moral disengagement is a mediating variable. Results from a simple mediation analysis indicated that narcissism is indirectly related to criminal cognition and its subdomains through the relationship with moral disengagement.

Results show that 41% variance ( $\Delta R^2 = .41$ ) is explained by the interaction effect of narcissism and criminal cognitions in the above table. As shown in Figure 2 below, participants with narcissism traits reported more moral disengagement ( $a = 0.82, p < .01$ ), and high levels of moral disengagement was subsequently related to more criminal cognition ( $b = 1.12, p < .01$ ). A 95% confidence interval based on 5,000 bootstrap samples indicated that the indirect effect ( $ab = .92$ ) was significant (0.49 to 1.39). Results also revealed that for inability to cope narcissism explains 25% of the variance ( $\Delta R^2 = .25$ ). Figure 2 shows that high levels of moral disengagement were significantly related to the Inability to cope ( $b = .11, p < .01$ ) dimension of criminal cognition. A 95% confidence interval based on 5,000 bootstrap samples indicated that the indirect effect ( $c = .09$ ) was significant (0.05 to .14). Similarly, the emotionally disengaged dimension revealed a 1% variance ( $\Delta R^2 = .1$ ) by the interaction effect of narcissism. Findings showed that moral disengagement was ultimately related to Emotionally disengaged ( $b = .03, p < .05$ ). Based on 5,000 bootstrap samples, a 95% confidence interval revealed that the indirect impact ( $c = .02$ ) was significant (.00 to .05). Results also indicate that 32% variance ( $\Delta R^2 = .32$ ) is present by the interaction effect of narcissism and demand for excitement that is significantly related (as shown in figure 2) by moral disengagement ( $b = .20, p < .01$ ). A 95% confidence interval found that the indirect influence ( $c = .16$ ) was significantly based on 5,000 bootstrap samples (.09 to .24). Findings also revealed that a 25% variance ( $\Delta R^2 = .25$ ) was explained by the

interaction effect of narcissism and poor judgment in the above table. As shown in Figure 2 below, high levels of moral disengagement were subsequently related to more poor judgment ( $b = .19, p < .01$ ). A 95% confidence interval based on 5,000 bootstrap samples indicated that the indirect effect ( $c = .16$ ) was significant (.09 to .24). Whereas the interaction effect of narcissism and parasitic dimension explained 28% of the variation ( $\Delta R^2 = .28$ ). According to the data displayed in figure 2, moral disengagement was eventually connected to the parasitic dimension ( $b = .09, p < .01$ ). Based on 5,000 bootstrap samples, a 95% confidence interval revealed that the indirect impact ( $c = .08$ ) was significant (.04 to .12).

In Table 4.10 findings demonstrated that narcissism accounts for 33% of the variance in justifying ( $\Delta R^2 = .33$ ). Figure 2 demonstrates that high levels of moral disengagement were strongly connected to the criminal cognition facet of justifying ( $b = .15, p < .01$ ). Based on 5,000 bootstrap samples, a 95% confidence interval revealed that the indirect impact ( $c = .12$ ) was significant (0.06 to .18). The interaction impact of narcissism indicated a 3% variance ( $\Delta R^2 = .3$ ) among grandiosity. Findings revealed that moral disengagement was eventually associated with grandiosity ( $b = .04, p < .01$ ). A 95 % confidence interval based on 5,000 bootstrap samples demonstrated that the indirect influence ( $c = .04$ ) was significant (.01 to .06). The interaction impact of narcissism and disregard for others, on the other hand, explained 32% of the variance ( $\Delta R^2 = .32$ ). Moral disengagement was finally linked to disregard for others, according to the results shown in figure 2 ( $b = .29, p < .01$ ). A 95 % confidence interval based on 5,000 bootstrap samples demonstrated that the indirect influence ( $c = .24$ ) was significant (.13 to .36).

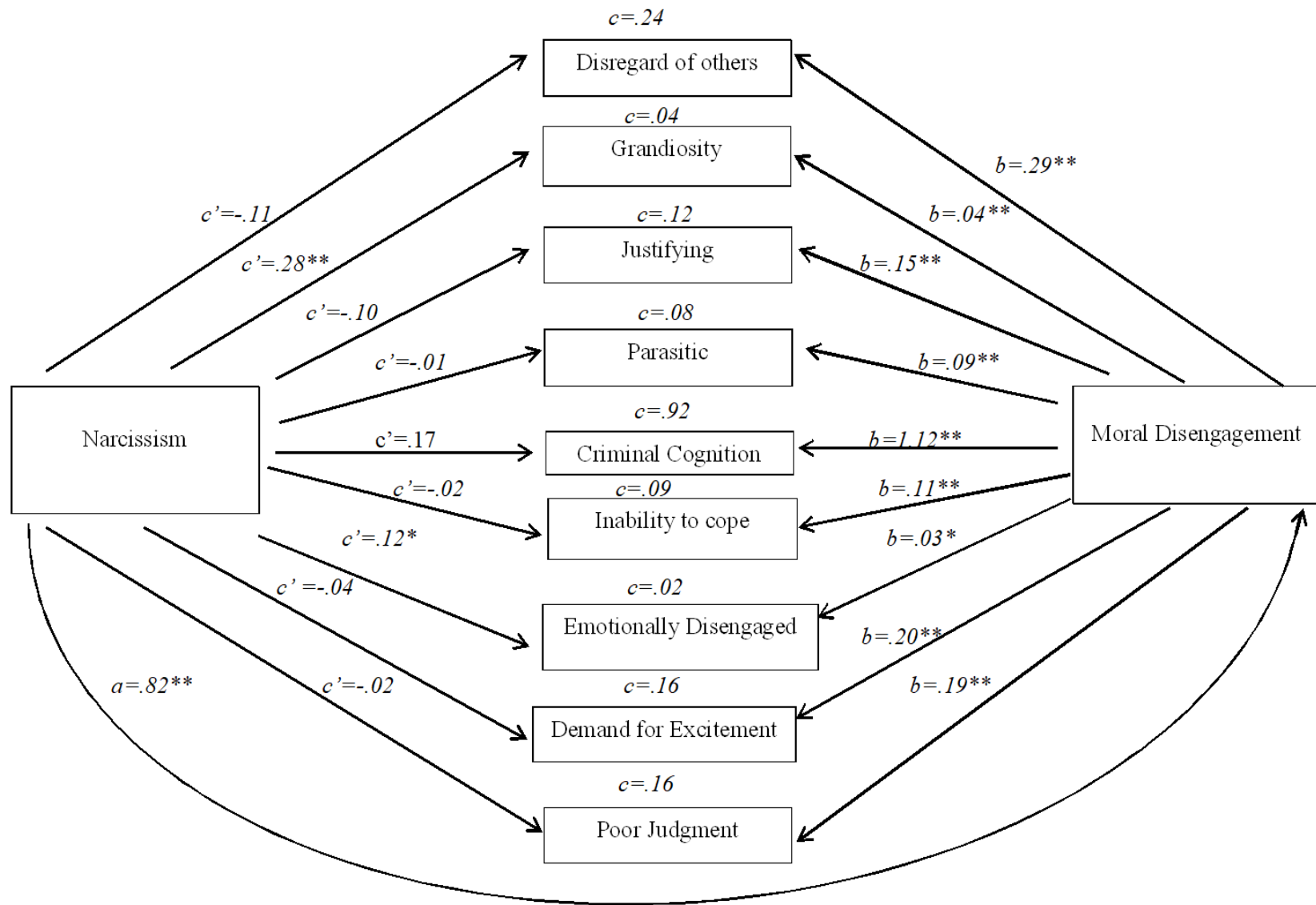


Figure 2. Mediation by Moral Disengagement on the association between dark traits domain (Narcissism) and criminal cognition with its sub-domains.



**Table 4.11**

*Simple Mediation of the effect of Dark Traits and Criminal Cognition by Moral Disengagement (N = 452)*

Predictors	Criminal cognition				Inability to cope				Emotionally Disengaged			
	Model 1	Model 2	95% CL		Model 1	Model 2	95% CL		Model 1	Model 2	95% CL	
	B	B	LL	UL	B	B	LL	UL	B	B	LL	UL
Constant	106.85**	39.12**	27.0	51.18	11.45**	5.44**	3.75	7.1	10.84**	9.74**	7.66	11.8
			6					2				1
Psychopathy	1.50**	.31	-.15	.78	.20**	.10**	.03	.16	.27**	.25**	.17	.33
Moral		1.11**	.98	1.23		.10**	.08	.12		.02	.00	.04
Disengagement												
Indirect effect		1.18	.76	1.63		.10	.06	.15		.02	.00	.05
R <sup>2</sup>	.05	.44			.06	.27			.09	.10		
F	25.37	178.30			30.78	82.86			45.49	24.24		
Predictors	Demand for Excitement				Poor Judgment				Parasitic			
Constant	12.63**	.63	-	3.26	12.32**	.57	-	3.6	6.97**	.85	-.56	2.26
			1.99				2.49	3				
Psychopathy	.19**	-.02	-.12	.08	.20**	.00	-.12	.12	.03	-.07*	-.13	-.02
Moral		.20**	.17	.22		.19**	.16	.22		.10**	.09	.11
Disengagement												
Indirect effect		.21	.13	.29		.21	.13	.28		.11	.07	.14
R <sup>2</sup>	.02	.33			.02	.26			.00	.30		
F	9.90	111.07			9.31	79.52			1.22	94.27		

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

**Table 4.12**

*Simple Mediation of the effect of Dark Traits and Criminal Cognition by Moral Disengagement (N = 452)*

Predictors	Model 1 B	Justifying			Model 1 B	Grandiosity			Disregard for Others			
		Model 2 B	95% CL			Model 2 B	95% CL		Model 1 B	Model 2 B	95% CL	
			LL	UL			LL	UL			LL	UL
Constant	10.62**	1.43	-.53	3.38	13.38**	10.58**	8.4	12.7	22.86**	4.91*	.89	8.93
Psychopathy	.04	-.12**	-.19	-.04	.21**	.17**	.08	.25	.25*	-.06	-.22	.10
Moral Disengagement		.15**	.13	.17		.05**	.02	.07		.29**	.25	.33
Indirect effect		.16	.10	.22		.05	.02	.08		.31	.20	.43
R <sup>2</sup>	.00	.33			.06	.09			.02	.32		
F	.95	110.56			27.05	22.53			7.69	104.59		

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

Tables 4.11 and 4.12 provide basic mediation analyses for the relationship between Dark Traits (psychopathy as a predictor variable) and criminal cognition and its subdomains as an outcome variable, with moral disengagement serving as a mediating variable. A simple mediation study revealed that psychopathy is associated with criminal cognition and its subdomains indirectly via the association with moral disengagement.

Table 4.11 demonstrates that the interaction effect of psychopathy and criminal cognitions in the above table explains 39% of the variance ( $\Delta R^2=.39$ ). Participants with psychopathic tendencies reported higher moral disengagement ( $a = 1.07, p = .01$ ), and high levels of moral disengagement were later connected to more criminal cognition ( $b = 1.11, p < .01$ ), as shown in Figure 3. Based on 5,000 bootstrap samples, a 95 % confidence interval revealed that the indirect impact ( $ab = 1.18$ ) was significant (0.76 to 1.63). The findings also demonstrated that psychopathy accounts for 21% of the variance in the inability to cope ( $\Delta R^2=.21$ ). Figure 3 demonstrates that high degrees of moral disengagement were considerably connected to the component of criminal cognition Inability to cope ( $b=.10, p < .01$ ). Based on 5,000 bootstrap samples, a 95% confidence interval revealed that the indirect impact ( $c = .10$ ) was significant (0.06 to .15). Similarly, the interaction impact of psychopathy indicated a 1% variation ( $\Delta R^2=.1$ ) in the emotionally disengaged component. Findings revealed that moral disengagement was eventually associated with emotional disengagement ( $b=.02$ ). A 95% confidence interval based on 5,000 bootstrap samples demonstrated that the indirect influence ( $c = .02$ ) was significant (.00 to .05). The results also demonstrate that the interaction effect of psychopathy and demand for excitement, which is strongly associated (as shown in figure 3) with moral disengagement ( $b=.20, p < .01$ ), accounts for 31% of the variance ( $\Delta R^2=.31$ ). Based on 5,000 bootstrap samples, a 95% confidence interval determined that the indirect impact ( $c = .21$ ) was significant (.13 to

.29). The preceding data also demonstrated that the interaction effect of psychopathy and poor judgment explained 24% of the variance ( $\Delta R^2=.24$ ). As indicated in Figure 3, high degrees of moral disengagement was later associated with poor judgment ( $b =.19, p < .01$ ). Based on 5,000 bootstrap samples, a 95% confidence interval revealed that the indirect impact ( $c=.21$ ) was significant (.13 to .28). The interaction impact of psychopathy and parasitic dimension, on the other hand, explained 30% of the variance ( $\Delta R^2=.30$ ). Moral disengagement was finally linked to the parasitic dimension ( $b=.10, p < .01$ ) according to the data shown in figure 3. A 95 % confidence interval based on 5,000 bootstrap samples demonstrated that the indirect influence ( $c =.11$ ) was significant (.07 to .14).

According to the data in Table 4.12, psychopathy accounted for 33% of the variance in justifying ( $\Delta R^2=.33$ ). Figure 3 shows that high degrees of moral disengagement are highly associated with the criminal cognitive feature of justifying ( $b=.15, p < .01$ ). A 95 % confidence interval based on 5,000 bootstrap samples demonstrated that the indirect influence ( $c =.16$ ) was significant (.10 to .22). The interaction effect of psychopathy revealed a 3% variance ( $\Delta R^2=.3$ ) in grandiosity. Moral disengagement was eventually related to grandiosity ( $b=.05, p < .01$ ), according to the findings. Based on 5,000 bootstrap samples, a 95% confidence interval revealed that the indirect impact ( $c =.05$ ) was significant (.01 to .06). In contrast, the interaction effect of psychopathy and disregard for others explained 31% of the variance ( $\Delta R^2=.31$ ). According to the data displayed in figure 3, moral disengagement was finally associated to disregard for others ( $b=.29, p < .01$ ). Based on 5,000 bootstrap samples, a 95% confidence interval revealed that the indirect impact ( $c =.31$ ) was significant (.20 to .43).

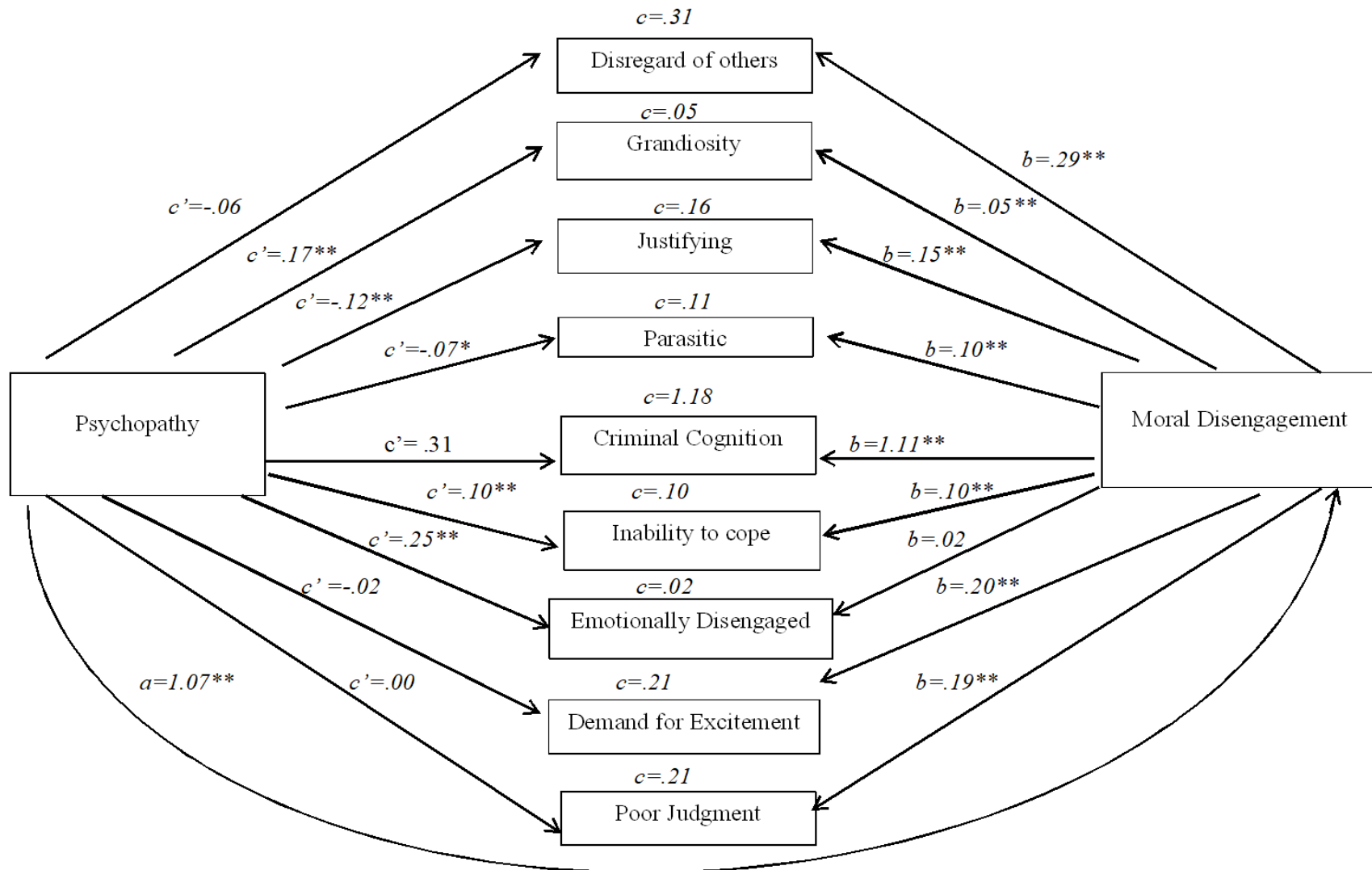


Figure 3. Mediation by Moral Disengagement on the association between dark traits domain (Psychopathy) and criminal cognition with its sub-domains

**Table 4.13**

*Simple Mediation of the effect of Dark Traits and Criminal Cognition by Moral Disengagement (N = 452)*

Predictors	Criminal cognition				Inability to cope				Emotionally Disengaged			
	Model 1	Model 2	95% CL		Model 1	Model 2	95% CL		Model 1	Model 2	95% CL	
	B	B	LL	UL	B	B	LL	UL	B	B	LL	UL
Constant	86.98**	44.41**	35.20	53.63	11.67**	6.85**	5.46	8.25	15.54**	13.30**	11.51	15.08
Sadism	3.10**	1.78**	1.39	2.18	.24**	.09**	.03	.15	.05	-.02	-.10	.05
Moral Disengagement		.77**	.64	.91		.09**	.07	.11		.04**	.01	.07
Indirect effect		1.32	1.05	1.60		.15	.10	.20		.07	.02	.12
R <sup>2</sup>	.39	.53			.16	.27			.00	.03		
F	289.01	248.38			82.72	83.26			2.25	5.85		
Predictors	Demand for Excitement				Poor Judgment				Parasitic			
Constant	6.99**	.50	-1.51	2.50	6.71**	.71	-1.65	3.08	3.44	-.13	-1.26	1.00
Sadism	.58**	.38**	.30	.47	.60**	.41**	.31	.51	.26	.15**	.10	.20
Moral Disengagement		.12**	.09	.15		.11**	.07	.14		.06**	.05	.08
Indirect effect		.20	.14	.27		.19	.12	.25		.21	.08	.14
R <sup>2</sup>	.35	.43			.30	.36			.25	.34		
F	242.56	168.88			193.15	123.68			151.89	115.47		

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

**Table 4.14**

*Simple Mediation of the effect of Dark Traits and Criminal Cognition by Moral Disengagement (N = 452)*

Predictors	Model 1 B	Justifying			Model 1 B	Grandiosity			Disregard for Others			
		Model 2 B	95% CL			Model 2 B	95% CL		Model 1 B	Model 2 B	95% CL	
			LL	UL		LL	UL			LL	UL	
Constant	5.66**	-.18	-	1.40	15.82**	12.99**	11.19	14.78	13.96**	4.27*	1.17	7.37
Sadism	.36**	.18**	.11	.25	.12**	.03	-.04	.11	.86**	.56**	.43	.69
Moral Disengagement		.11**	.08	.13		.05**	.03	.08		.18**	.13	.22
Indirect effect		.18	.13	.23		.09	.04	.14		.30	.21	.39
R <sup>2</sup>	.24	.35			.03	.06			.33	.41		
F	141.52	123.50			14.25	14.73			225.00	155.94		

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

Tables 4.13 and 4.14 present preliminary mediation studies for the association between Dark Traits (sadism as a predictor variable) and criminal cognition and its subdomains as an outcome variable, with moral disengagement acting as a mediating variable. Sadism is connected with criminal cognition and its subdomains indirectly via the connection with moral disengagement, according to a simple mediation study.

Results show that the interaction effect of sadism and criminal cognitions in the preceding table accounts for 14% of the variation ( $\Delta R^2=.14$ ). Participants with sadism tendencies had greater levels of moral disengagement ( $a = 1.71, p < .01$ ), and high levels of moral disengagement were later linked to higher levels of criminal cognition ( $b = .77, p < .01$ ), as shown in Figure 4. A 95 % confidence interval based on 5,000 bootstrap samples demonstrated that the indirect influence ( $ab = 1.32$ ) was significant (1.05 to 1.60). Sadism, according to the data, explains 11% of the variance in an inability to cope ( $\Delta R^2=.11$ ). Figure 4 shows that high levels of moral disengagement were significantly related to the component of criminal cognition. Inability to cope ( $b=.09, p < .01$ ). A 95 % confidence interval based on 5,000 bootstrap samples demonstrated that the indirect influence ( $c = .15$ ) was significant (.10 to .20). Likewise, the interaction effect of sadism revealed a 3% variance ( $\Delta R^2=.3$ ) in the emotionally disengaged component. Moral disengagement was eventually linked to emotional disengagement ( $b=.04, p < .01$ ), according to the findings. Based on 5,000 bootstrap samples, a 95% confidence interval revealed that the indirect impact ( $c = .07$ ) was significant (.02 to .12). The findings also suggest that the interaction effect of sadism and demand for excitement, which is substantially related to moral disengagement ( $b=.12, p < .01$ ) explains 8% of the variance ( $\Delta R^2=.8$ ). A 95 % confidence interval found that the indirect influence ( $c = .20$ ) was significantly based on 5,000 bootstrap samples (.14 to .27). The previous data also showed that the interaction effect of sadism and poor



judgment explained 6% of the variation ( $\Delta R^2=.6$ ). As shown in Figure 4, high levels of moral disengagement were later linked to poor judgment ( $b=.11$ ,  $p<.01$ ). A 95% confidence interval based on 5,000 bootstrap samples demonstrated that the indirect influence ( $c=.19$ ) was significant (.12 to .25). Sadism and parasitic dimension interaction, on the other hand, explained 9% of the variance ( $\Delta R^2=.9$ ). According to the findings in figure 4, moral disengagement was eventually connected to the parasitic dimension ( $b=.06$ ,  $p<.01$ ). Based on 5,000 bootstrap samples, a 95% confidence interval revealed that the indirect impact ( $c=.21$ ) was significant (.08 to .14).

According to Table 4.14, Sadism accounted for 11% of the variance in justifying ( $\Delta R^2=.11$ ). Figure 4 demonstrates that high levels of moral disengagement are strongly related to the criminal cognitive trait of justifying ( $b=.11$ ,  $p<.01$ ). Based on 5,000 bootstrap samples, a 95% confidence interval revealed that the indirect impact ( $c=.18$ ) was significant (.13 to .23). Sadism's interaction impact indicated a 3% variance ( $\Delta R^2=.3$ ) in grandiosity. According to the data, moral disengagement was eventually associated with grandiosity ( $b=.05$ ,  $p<.01$ ). A 95% confidence interval based on 5,000 bootstrap samples demonstrated that the indirect influence ( $c=.09$ ) was significant (.04 to .14). The interaction effect of sadism and disregard for others, on the other hand, explained 8% of the variance ( $\Delta R^2=.8$ ). Figure 4 shows that moral disengagement was eventually connected with disregard for others ( $b=.18$ ,  $p<.01$ ). A 95% confidence interval based on 5,000 bootstrap samples demonstrated that the indirect influence ( $c=.30$ ) was significant (.21 to .39).

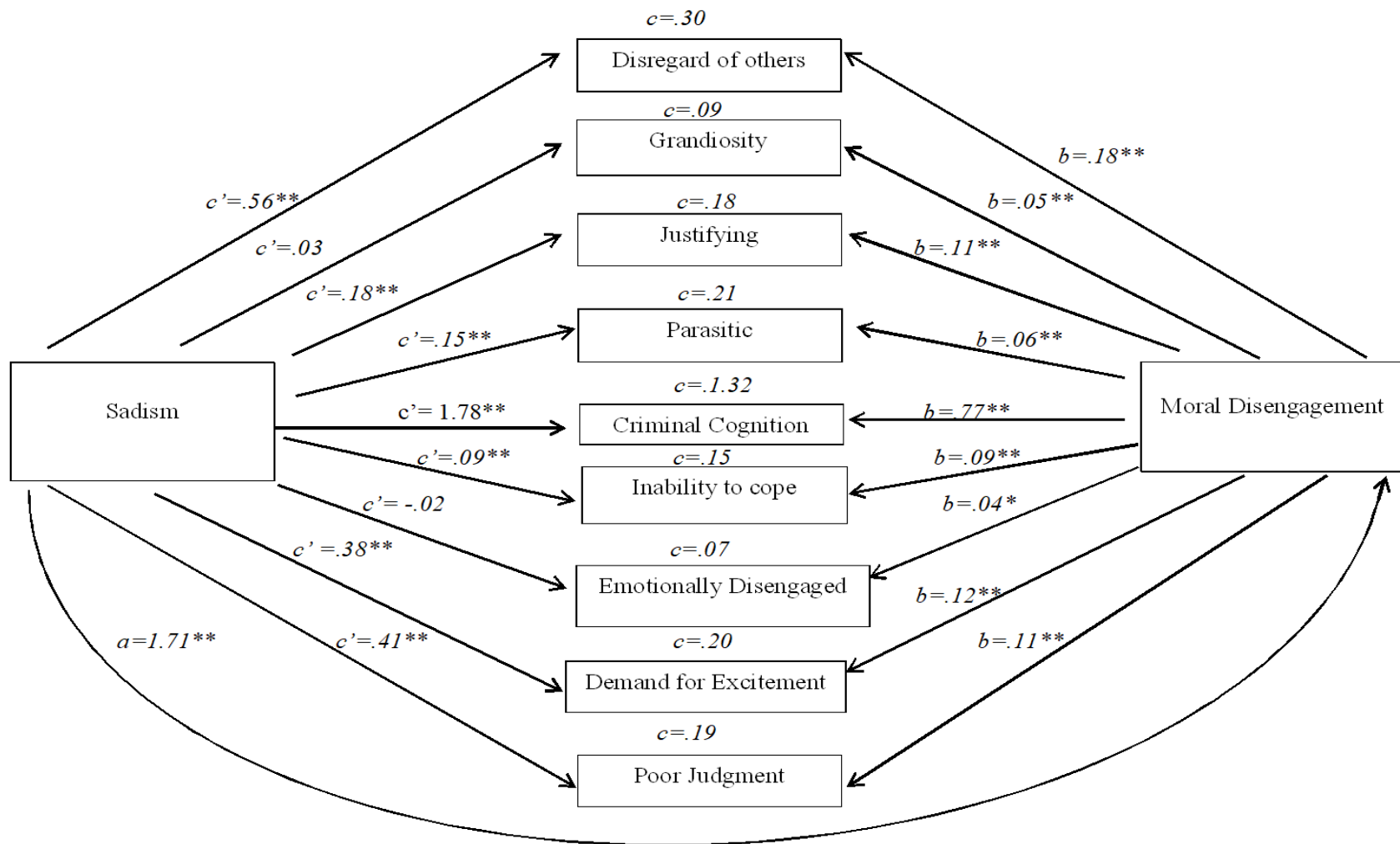


Figure 4. Mediation by Moral Disengagement on the association between dark traits domain (Sadism) and criminal cognition with its sub-domains.

### Moderation analysis

To determine the moderating role of emotion recognition between dark traits and criminal cognition, Andrew Hayes' Process Macro Model 1 was used with 5000 bootstrapped samples and a 95% confidence range. Only the significant findings have been reported below. The disclosed results have been supplemented with appropriate explanations, as well as a mod-graph.

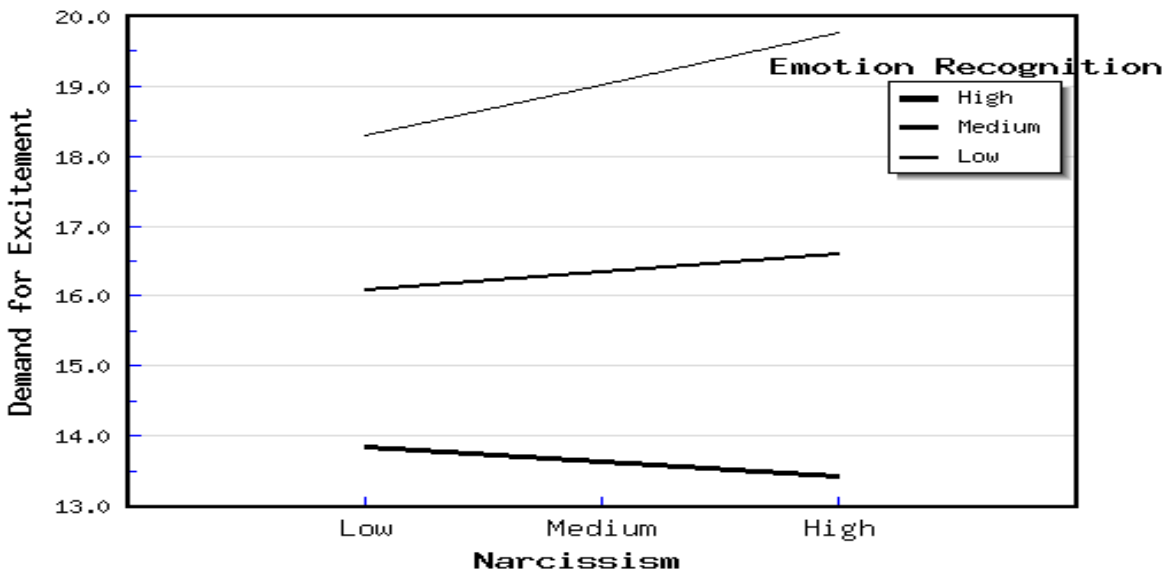
**Table 4.15**

*Moderation of the Association between Dark Traits and Criminal Cognition by Emotion Recognition (N = 452)*

Predictors	Demand for Excitement			
	B	<i>t</i>	95% CI	
			<i>LL</i>	<i>UL</i>
Constant	15.27	4.25**	8.21	22.33
Narcissism	.42	2.58*	.10	.73
Emotion Recognition (Moderator)	-.02	-.08	-.39	.36
Narcissism x Emotion Recognition	-.02	-2.27*	-.04	.00
<i>R</i> <sup>2</sup>	.26			
<i>F</i>	52.43			
$\Delta F$	47.27			

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

The table shows simple moderation analyses for the association between Dark Traits (narcissism as a predictor variable) and the demand for excitement dimension of criminal cognition as the outcome variable, whereas emotion recognition is a moderating variable. Interaction value (B= -.02,  $t = -2.27$ ,  $p < .05$ ) explains moderation of emotion recognition with variance of 26% between narcissism and demand for excitement.



*Figure 5.* Moderation by emotion recognition on the association between Narcissism (domain of Dark Traits) and Demand for Excitement (Sub-domain of Criminal Cognition) among university students.

Figure 5 shows the change caused by emotion recognition on the association between dark traits dimension Narcissism and criminal cognition dimension Demand for Excitement among university students. Results show that the low amount of emotional recognition in a person with narcissistic features enhances the demand for excitement, whereas a high level of emotional recognition decreases the demand for excitement in those with narcissistic tendencies

**Table 4.16**

*Moderation of the Association between Dark Traits and Criminal Cognition by Emotion*

*Recognition (N = 452)*

Predictors	Grandiosity			
	B	t	95% CI	
			LL	UL
Constant	18.56	6.85**	13.23	23.88
Narcissism	-.01	-.05	-.25	.23
Emotion Recognition (Moderator)	-.42	-2.94**	-.70	-.14
Narcissism x Emotion Recognition	.02	2.74*	.01	.03
R <sup>2</sup>	.13			
F	23.09			
ΔF	15.61			

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

Tables provide simple moderation analyses for the relationship between Dark Traits (narcissism as a predictor variable) and the Grandiosity dimension of criminal cognition as the outcome variable, with emotion recognition as a moderating variable. Interaction value (B= .02,  $t = 2.74$ ,  $p < .05$ ) describes moderation of emotion recognition with a variation of 13% between narcissism and Grandiosity.



*Figure 6. Moderation by emotion recognition on the association between Narcissism (domain of Dark Traits) and Grandiosity (Sub-domain of Criminal Cognition) among university students.*

Figure 6 shows the mod-graph for the moderation by emotion recognition in the association between dark traits and the grandiosity dimension of criminal cognition among university students. Results show that both high and low level of emotional recognition in the individual having narcissism traits decreases grandiosity among individuals having narcissistic traits of personality. However, a higher level of emotional recognition has a stronger impact as compared to a lower level of recognition.

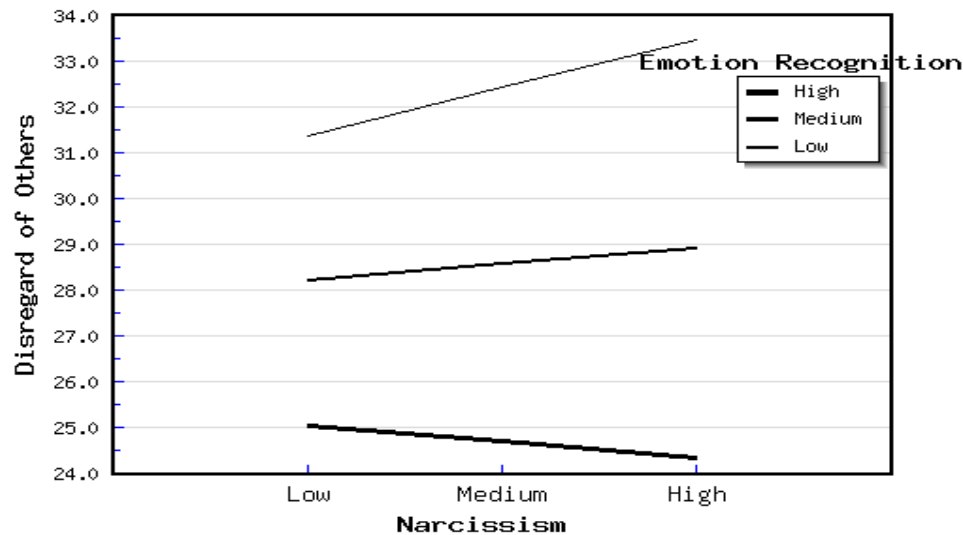
**Table 4.17**

*Moderation of the Association between Dark Traits and Criminal Cognition by Emotion Recognition (N = 452)*

Predictors	Disregard of Others			
	B	<i>t</i>	95% CI	
			<i>LL</i>	<i>UL</i>
Constant	26.65	4.93**	16.01	37.28
Narcissism	.62	2.56*	.14	1.10
Emotion Recognition (Moderator)	.00	.01	-.56	.57
Narcissism x Emotion Recognition	-.03	-2.44*	-.06	-.01
<i>R</i> <sup>2</sup>	.27			
<i>F</i>	55.14			
$\Delta F$	49.18			

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

Table presents simple moderation analyses for the connection between Dark Traits (narcissism as a predictor variable) and the Disregard of Others component of criminal cognition as an outcome variable, with emotion recognition as a moderating variable. Interaction value (B=-.03,  $t = -2.44$ ,  $p < .05$ ) demonstrates moderation of emotion recognition with a 27% variance between narcissism and Disregard of Others.



*Figure 7.* Moderation by emotion recognition on the association between Narcissism (domain of Dark Traits) and Disregard of Others (Sub-domain of Criminal Cognition) among university students.

Figure 7 depicts the impact of emotion recognition on the relationship between dark traits dimension. Disregard of Others is influenced by narcissism and criminal cognition in university students. According to the findings, a low degree of emotional recognition in a person with narcissistic tendencies increases disregard of others, whereas a high level of emotional recognition lessens disregard of others in individuals with narcissistic tendencies.

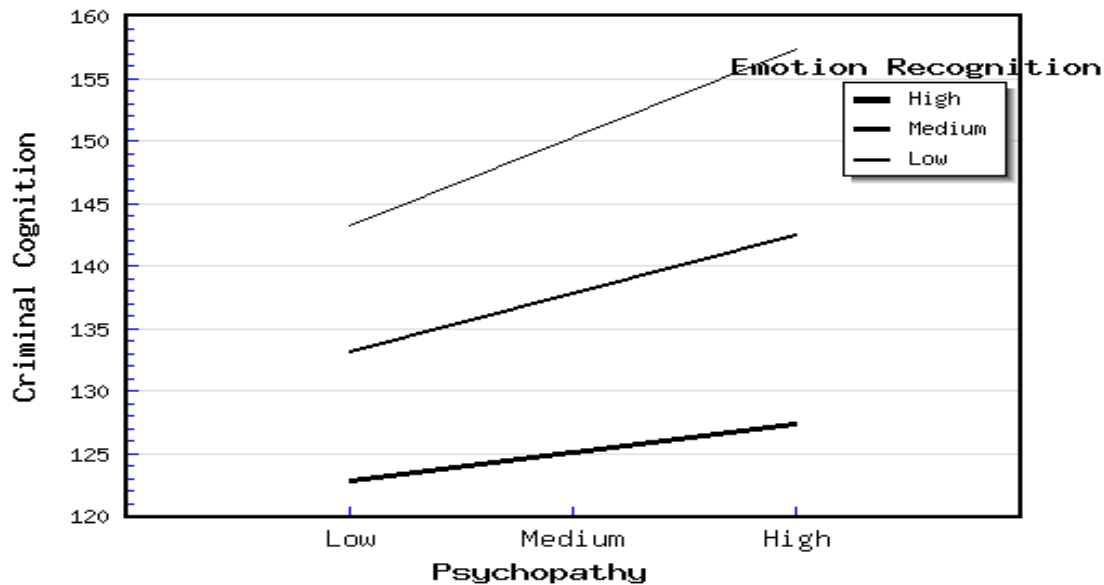
**Table 4.18**

*Moderation of the Association between Dark Traits and Criminal Cognition by Emotion Recognition (N=452)*

Predictors	Criminal Cognition			
	B	<i>t</i>	95% CI	
			<i>LL</i>	<i>UL</i>
Constant	115.30	6.38**	79.79	150.82
Psychopathy	2.92	3.42**	1.24	4.60
Emotion Recognition (Moderator)	-.07	-.08	-1.82	1.68
Psychopathy x Emotion Recognition	-.10	-2.36*	-.18	-.02
<i>R</i> <sup>2</sup>	.28			
<i>F</i>	59.11			
$\Delta F$	53.55			

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

The table presents simple moderation analyses for the connection between Dark Traits (psychopathy as a predictor variable) and criminal cognition as an outcome variable, with emotion recognition as a moderating variable. Interaction value ( $B=-.10$ ,  $t= -2.36$ ,  $p<.05$ ) demonstrates moderation of emotion recognition with a 28% variance between psychopathy and criminal cognition.



*Figure 8.* Moderation by emotion recognition on the association between Psychopathy (domain of Dark Traits) and Criminal Cognition among university students.

Figure 8 shows the mod-graph for the moderation by emotion recognition in the association between dark traits and criminal cognition among university students. Results show that both high and low level of emotional recognition in the individual having narcissism traits decreases criminal cognition among individuals having narcissistic traits of personality. However, a higher level of emotional recognition has a stronger impact than compared to a low level of recognition.



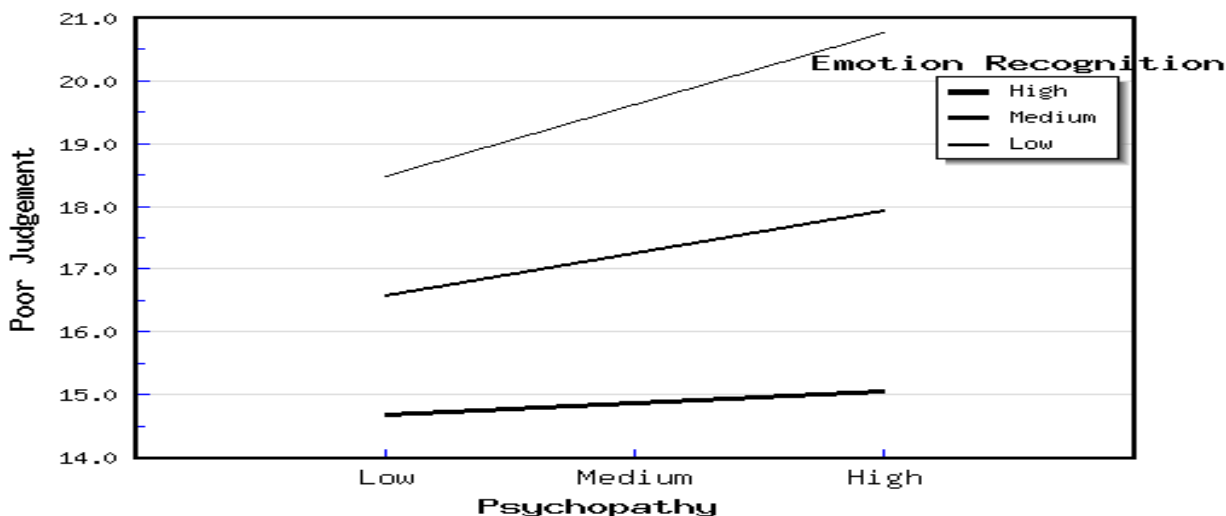
**Table 4.19**

*Moderation of the Association between Dark Traits and Criminal Cognition by Emotion Recognition (N = 452)*

Predictors	Poor Judgment			
	B	<i>t</i>	95% CI	
			<i>LL</i>	<i>UL</i>
Constant	13.66	3.30**	5.52	21.80
Psychopathy	.52	2.65*	.13	.90
Emotion Recognition (Moderator)	.01	.03	-.39	.41
Psychopathy x Emotion Recognition	-.02	-2.24*	-.04	.00
<i>R</i> <sup>2</sup>	.23			
<i>F</i>	43.48			
$\Delta F$	38.44			

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

Simple moderation analyses are shown in the table for the relationship between Dark Traits (psychopathy as a predictor variable) and Poor Judgment as a dimension of criminal cognition as an outcome variable, with emotion recognition as a moderating variable. With a 23% variance between psychopathy and Poor Judgment, the interaction value ( $B = -.02$ ,  $t = -2.24$ ,  $p < .05$ ) suggests moderation of emotion recognition.



*Figure 9. Moderation by emotion recognition on the association between Psychopathy (domain of Dark Traits) and Poor Judgment (domain of Criminal Cognition) among university students.*

Figure 9 depicts the mod-graph for emotion recognition's moderating of the link between dark characteristics and criminal cognition in university students. The results suggest that those with narcissistic tendencies who had lower levels of emotional recognition have more poor judgment and vice versa.

**Table 4.20**

*Moderation of the Association between Dark Traits and Criminal Cognition by Emotion Recognition (N=452)*

Predictors	Parasitic			
	B	<i>t</i>	95% CI	
			<i>LL</i>	<i>UL</i>
Constant	5.13	2.56*	1.20	9.07
Psychopathy	.29	3.06**	.10	.48
Emotion Recognition (Moderator)	.13	1.30	-.07	.32
Psychopathy x Emotion Recognition	-.02	-3.32**	-.03	-.01
<i>R</i> <sup>2</sup>	.19			
<i>F</i>	34.80			
$\Delta F$	23.77			

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

The table shows simple moderation analyses for the association between Dark Traits (psychopathy as a predictor variable) and Parasitic tendencies as an outcome variable, with emotion recognition as a moderating variable. The interaction result (B=-.02,  $t = -3.32$ ,  $p < .01$ ) implies moderation of emotion recognition with a 19% variance between psychopathy Parasitic tendencies.

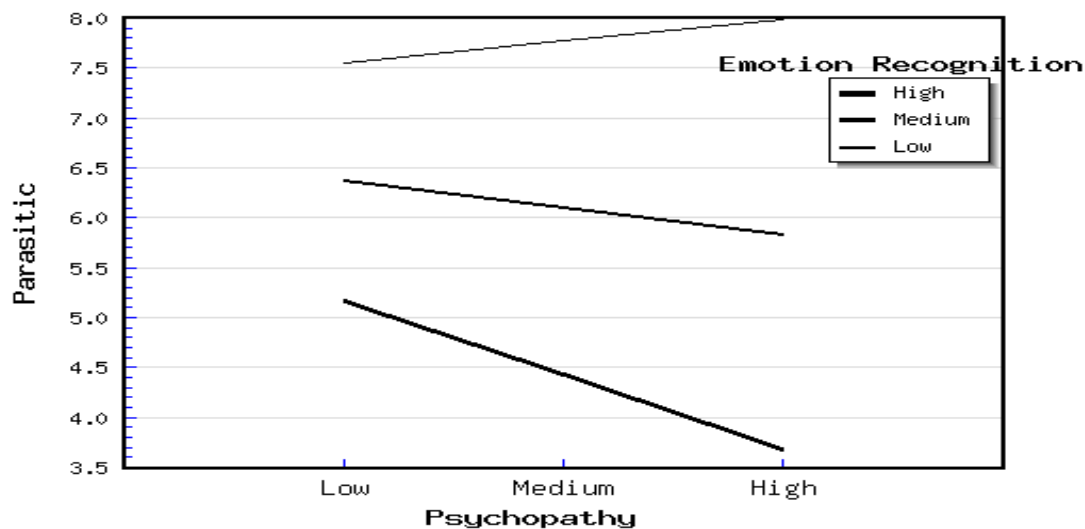


Figure 10. Moderation by emotion recognition on the association between Psychopathy (domain of Dark Traits) and Parasitic (domain of Criminal Cognition) among university students.

Figure 10 depicts the effect of emotion recognition on the relationship between dark traits dimension. University students' narcissism and the parasitic component of criminal cognition. According to the findings, a low degree of emotional recognition in a person with narcissistic tendencies increases parasitic tendencies, but a high level of emotional recognition lessens parasitic tendencies in individuals with narcissistic tendencies.

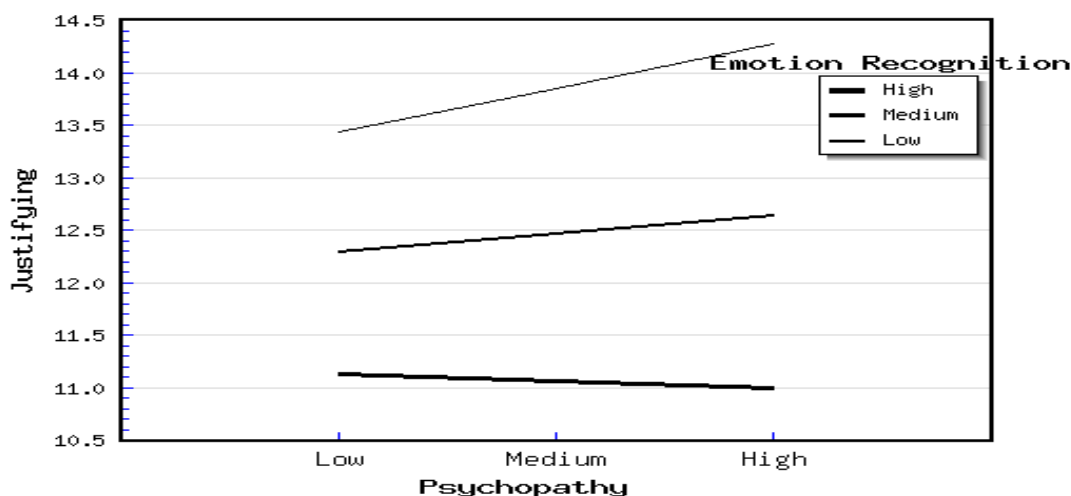
**Table 4.21**

*Moderation of the Association between Dark Traits and Criminal Cognition by Emotion Recognition (N=452)*

Predictors	Justifying			
	B	<i>t</i>	95% CI	
			<i>LL</i>	<i>UL</i>
Constant	12.11	4.29**	6.57	17.66
Psychopathy	.22	1.67	-.04	.48
Emotion Recognition (Moderator)	-.03	-.20	-.30	.25
Psychopathy x Emotion Recognition	-.01	-1.94*	-.03	.00
<i>R</i> <sup>2</sup>	.20			
<i>F</i>	37.28			
$\Delta F$	33.51			

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

Simple moderation analyses are shown in the table for the relationship between Dark Traits (psychopathy as a predictor variable) and Justifying component as an outcome variable, with emotion recognition as a moderating variable. The interaction finding ( $B=-.01$ ,  $t= -1.94$ ,  $p< .05$ ) suggests that emotion recognition is moderated with a 20% variance between psychopathy and the Justifying component of criminal cognition.



*Figure 11.* Moderation by emotion recognition on the association between Psychopathy (domain of Dark Traits) and Justifying (domain of Criminal Cognition) among university students.

Figure 11 demonstrates the moderating of the connection between dark traits and criminal cognition in university students by emotion recognition. According to the findings, persons with narcissistic tendencies have lower levels of emotion recognition and have a higher degree of Justifying component and a greater level of emotion recognition has a lower degree of Justifying component.

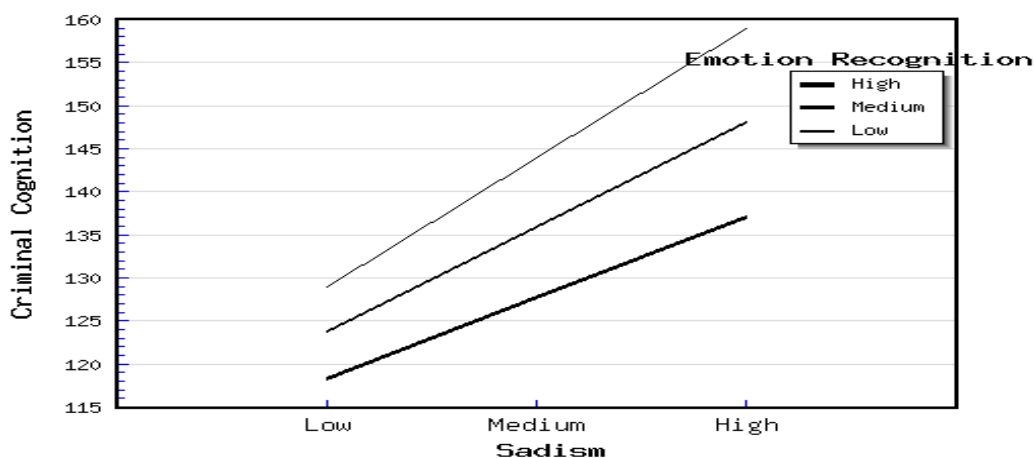
**Table 4.22**

*Moderation of the Association between Dark Traits and Criminal Cognition by Emotion Recognition (N = 452)*

Predictors	Criminal Cognition			
	B	<i>t</i>	95% CI	
			<i>LL</i>	<i>UL</i>
Constant	96.55	9.49**	76.56	116.55
Sadism	3.89	6.99**	2.80	4.98
Emotion Recognition (Moderator)	.10	.19	-.98	1.19
Sadism x Emotion Recognition	-.09	-2.66*	-.15	-.02
<i>R</i> <sup>2</sup>	.47			
<i>F</i>	131.61			
$\Delta F$	124.54			

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

The table shows basic moderation analyses for the relationship between Dark Traits (sadism as a predictor variable) and criminal cognition as an outcome variable, with emotion recognition as a moderating variable. Interaction value ( $B = -.09$ ,  $t = -2.66$ ,  $p < .05$ ) reveals moderation of emotion recognition with a 47% variance between sadism and criminal cognition.



*Figure 12. Moderation by emotion recognition on the association between Sadism (domain of Dark Traits) and Criminal Cognition among university students.*

Figure 12 shows the moderating effect of emotion recognition on the connection between dark traits and criminal cognition in university students. According to the findings, persons with

Sadism traits who have lower levels of emotion recognition possess higher levels of criminal cognition. Individuals with a high level of emotion recognition also have a low level of criminal cognition.

**Table 4.23**

*Moderation of the Association between Dark Traits and Criminal Cognition by Emotion Recognition (N = 452)*

Predictors	Justifying			
	B	t	95% CI	
			LL	UL
Constant	6.55	3.84**	3.20	9.90
Sadism	.50	5.38**	.32	.69
Emotion Recognition (Moderator)	.04	.48	-.14	.23
Sadism x Emotion Recognition	-.01	-2.63*	-.03	.00
$R^2$	.32			
$F$	68.89			
$\Delta F$	61.99			

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

Basic moderation analyses are shown in the table for the connection between Dark Traits (sadism as a predictor variable) and the Justifying component of criminal cognition as an outcome variable, with emotion recognition as a moderating variable. Interaction value (B=-.01, t= -2.63,  $p < .05$ ) demonstrates emotion recognition moderation with a 32% variance between sadism and Justifying domain of criminal cognition.

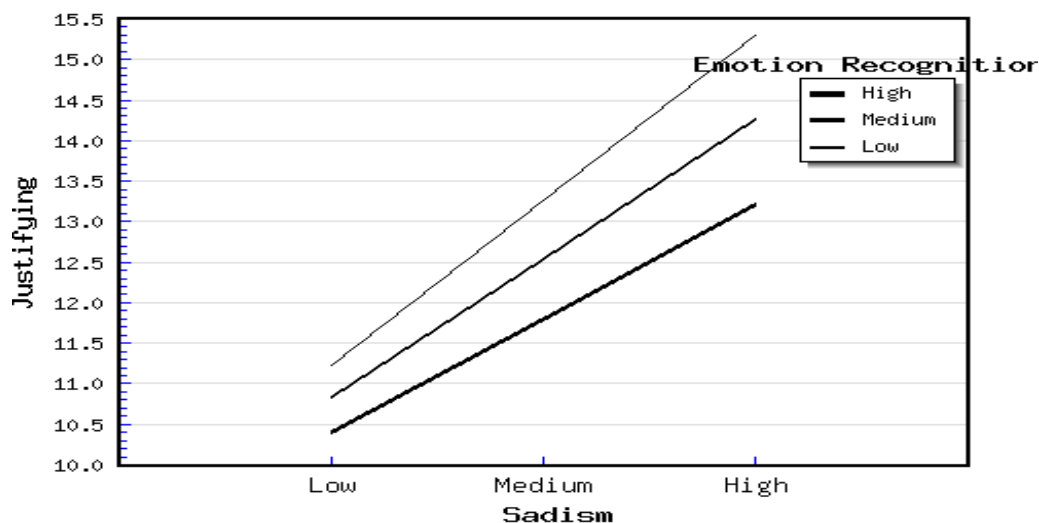


Figure 13. Moderation by emotion recognition on the association between Sadism (domain of Dark Traits) and Justifying (domain of Criminal Cognition) among university students.

Figure 13 revealed the moderating effect of emotion recognition on the connection between dark traits and criminal cognition in university students. Findings show those individuals having sadism traits with a low level of emotion recognition have high tendencies of having justifying component of criminal cognition as compared to individuals having a high level of emotion recognition.

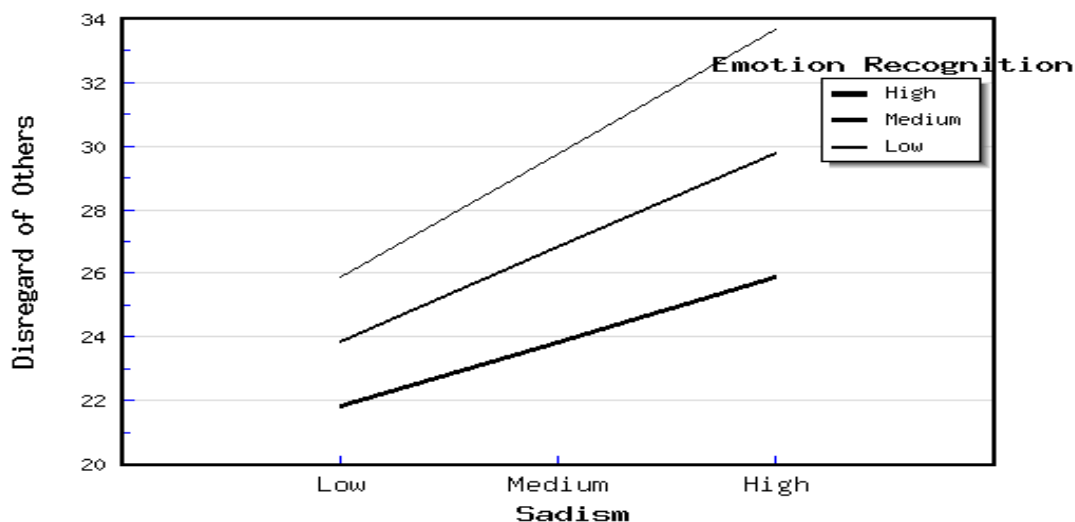
**Table 4.24**

*Moderation of the Association between Dark Traits and Criminal Cognition by Emotion Recognition (N=452)*

Predictors	Disregard of Others			
	B	<i>t</i>	95% CI	
			<i>LL</i>	<i>UL</i>
Constant	17.86	5.61**	11.61	24.11
Sadism	1.09	6.26**	.75	1.43
Emotion Recognition (Moderator)	-.01	-.03	-.34	.33
Sadism x Emotion Recognition	-.03	-2.62*	-.05	-.01
<i>R</i> <sup>2</sup>	.43			
<i>F</i>	111.78			
$\Delta F$	104.94			

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

Basic moderation studies for the relationship between Dark Traits (sadism as a predictor variable) and the disrespect of Others' domain of criminal cognition as an outcome variable are given in the table using emotion recognition as a moderating variable. Interaction value ( $B = -.03$ ,  $t = -2.62$ ,  $p < .05$ ) shows emotion recognition moderation with a 43% variance between sadism and disregard of Others domain of criminal cognition.



*Figure 14.* Moderation by emotion recognition on the association between Sadism (domain of Dark Traits) and Demand for others (domain of Criminal Cognition) among university students.

Figure 14 depicted emotion recognition moderating effect on the connection between dark traits and criminal cognition in university students. According to the findings, individuals with sadism traits and a low level of emotion recognition have a higher tendency to disregard other components of criminal cognition than individuals with a high level of emotion recognition.



**Table 4.25**

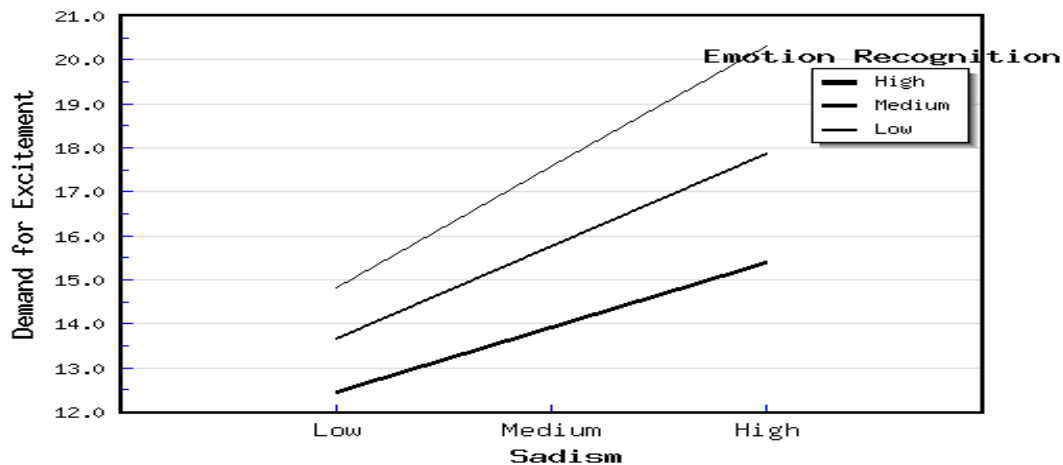
*Moderation of the Association between Dark Traits and Criminal Cognition by Emotion*

*Recognition (N=452)*

Predictors	Demand for Excitement			
	B	<i>t</i>	95% CI	
			<i>LL</i>	<i>UL</i>
Constant	8.93	4.28**	4.83	13.02
Sadism	.75	6.59**	.53	.97
Emotion Recognition (Moderator)	.02	.22	-.20	.25
Sadism x Emotion Recognition	-.02	-2.73*	-.03	-.01
$R^2$	.44			
$F$	115.13			
$\Delta F$	107.67			

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

The table presents preliminary moderation studies for the association between Dark Traits (sadism as a predictor variable) and the demand for the Excitement subdomain of criminal cognition as an outcome variable, with emotion recognition as a moderating variable. The interaction result ( $B = -.03$ ,  $t = -2.62$ ,  $p < .05$ ) indicates emotion recognition moderation with a 44% variance between sadism and the demand for Excitement aspect of criminal cognition.



*Figure 15. Moderation by emotion recognition on the association between Sadism (domain of Dark Traits) and Demand for others (domain of Criminal Cognition) among university students.*

Figure 15 demonstrated emotion recognition moderating influence on the link between dark traits and criminal cognition in university students. According to the findings, those with sadistic features and a low degree of emotion recognition have a stronger tendency to demand the exciting part of criminal cognition than individuals with a high level of emotion recognition.

## Chapter 5

### SUMMARY, FINDINGS, DISCUSSIONS, CONCLUSION, AND RECOMMENDATIONS

#### 5.1 DISCUSSION

The main aim of the study is to explore the impact of dark traits on criminal cognition among university students and to see the mediating role of moral disengagement and moderating role of emotion recognition on study variables. Along with this the role of demographic variables i.e gender was also targeted and explored. To achieve these objectives data was collected from young under graduate university students studying in Rawalpindi and Islamabad. The average age for the sample was about 17 to 24 years both males and females. The investigation was separated into two stages. The pilot research aimed to assess the cultural appropriateness and ease of comprehension of the measures using a sample of 50 university students, following which the committee technique was used to translate three English scales, namely The Short Dark Tetrad, Criminogenic Thinking Profile, and Moral Disengagement Scale into Urdu. In the second part of this research, a separate main study was done with a sample of 452 university students to complete the research goals.

The objectives of the study were met by utilizing Urdu versions of The Short Dark Tetrad (Paulhus et al., 2020) that consisted of four sub-scales namely Machiavellianism, Narcissism, Psychopathy, and Sadism. Each was separately translated and evaluated for this particular research. Criminal Cognition was measured using translated Urdu version of the Criminogenic Thinking Profile (Mitchell & Tafrate, 2011). Whereas Urdu version of Moral Disengagement Scale (Caprara, Pastorelli & Bandura, 1995) and Reading the Mind in the Eye test (Simon Baron-Cohen, 2001) were used to measure moral disengagement and its subscales and emotion

recognition respectively. The study conceptual model (shown in Figure 1.1) emphasizes the link between the variables. It is consequently critical that acceptable methods of measuring variables that are accurate and be employed that are both valid and suitable for the current study.

Alpha reliability for all of the previously mentioned scales was computed to see the suitability of the scales. The findings indicated that alpha coefficients reliabilities of scales were found to be within the acceptable range .64-.93 alpha reliabilities and were highly internally consistent as previously been employed in several local and international studies and produced findings that were consistent with the existing literature (Amna , 2022). All of the variables' skewness and kurtosis values are found to be within the permissible range of -2 to +2 (Privitera, 2011). As a result, these factors exist within the sample and result in strong associations and fulfilled the requirement of normality assumption and further statistical investigation.

To study dark personalities and their effects always being the focus of attention by developmental psychologists, social scientistis etc. The recent trends in studing the lighter side of personality is equally important like the curiosity lies in the studying the dark side of the personality (Schyns, 2015). According to Paulhus (2014), these dark personalities are characterized by a collection of socially aversive features in the subclinical range and socially offensive traits in the normal or daily range. The present study was primarily focus on the exploration of link between Dark Traits and criminal cognition among university students. The target population of the current study was students when students enter a learning environment; they bring their personalities and characteristics. Students may have disruptive interpersonal characteristics such as dark traits, which are socially undesirable qualities that to predict future inclinations of human being in various domains of life (Dalal & Nolan, 2009). According to some psychologists, every individual has a little shadow in personality. According to Zweig and

Abrams (1991), every individual whether they are Parents, siblings, teachers, clergy, and friends creates a personal shadow and contributes to the complicated environment in which children learn what is kind, decent, and moral conduct and what is mean-spirited, humiliating, and wicked. According to Zweig and Abrams (1991), "all the sentiments and talents that are rejected by the ego and banished into the shadow contribute to the latent strength of human nature's dark side" (Mphande-Finn, 2016).

As it was hypothesized that "*there is a positive relationship between dark traits (i.e., narcissism, psychopathic, Machiavellianism, and sadism traits), criminal cognition, and moral disengagement among university students*". Results also revealed that dark traits i.e. narcissism, psychopathy, and sadism have a significant positive relationship ( $p < .01$ ,  $p < .05$ ) with criminal cognition, moral disengagement, and their domains. However, Machiavellianism has a negative relationship with criminal cognition and its domains and has a positive relationship with moral disengagement. The aggressive, narcissistic core of the triad encourages participation in a wide range of antisocial and criminal behaviors. Psychopathy is the most menacing of the three qualities, having long-term associations with a crime in prison, community, and school populations. The Dark Triad is an excellent alternative for personality qualities associated with determining why people commit crimes. There are several varieties of criminal activity, each of which may have a distinct link with each of the dark traits (Lyons, 2019). Previous research has looked into the links between Criminogenic thought and personality factors. The research found that criminal cognition is adversely related to personality traits like agreeableness (Egan et al., 2000). Furthermore, research has demonstrated that criminal cognition is connected with antisocial personality as well as other pathological personality traits (Bulten, Nijman, & van der Staak, 2009; Edwards, Albertson, & Verona, 2017; Fisher & Hany, 2021; Mitchell & Tafrate,

2012). The current investigation intended to enhance the understanding about the links between criminal thinking and dark traits. Although these subclinical personality characteristics are strongly linked with offending behaviors and forensic settings (Hopwood & Sellbom, 2013; Wygant et al., 2016) but they do exist in the subnormal domain.

Individuals high on psychopathy usually have callousness, antisocial, narcissism, and a lack of guilt related to selfish and impulsive conduct (Anderson & Kiehl, 2015; Brown, Hart, & Hare, 1996; Feilhauer & Cima, 2012). Criminal thinking refers to specific thought patterns that usually consistent with a criminal lifestyle (Lindblom, Eriksson & Hiltunen, 2018; Morgan, Batastini, Murray, Serna, Porras, 2015; Walters, 2007; 2016). According to research, there is a strong correlation exists between psychopathy, criminal cognition, and illegal conduct (Walters, 2007; Walters & Mandell, 2007). Dembo and colleagues also concluded in their study that high scores of psychopathy was strongly connected with all forms of criminal cognition (Dembo, Turner, & Jainchill; 2007) and they also committed crime or breaking rules as compared to individuals with low and moderate psychopathy levels (Fix & Fix, 2015). Another study conducted by Gonsalves and colleagues (2009) in which they examined the association between criminal thought and psychopathy in male offenders. The study results also strengthened the link between the impulsive antisocial type psychopathy and criminal cognition, Ragatz et al. (2011) also investigated the connection between these variables with a sample of high school bullies. Endorsing high levels of criminal thought best predicted being labeled as a bully. Overall, the findings support a substantial correlation between psychopathy and criminal cognition, implying that both may be effective predictors of illegal action.

Sadism is a set of psychological qualities defined by “*a desire to enjoy the misery of others*” (Baumeister, 1997; Nell, 2006). Prosocial activities’ healthy joy must compete with

humanity's darker desires. Sadism is a newly introduced term in the domain of dark traits (Paulhus, 2020). Sadism is the darkest aspect of personality when we compare with the other dark traits that is well present in the forensic and clinical samples (Buckels et al., 2013; Chabrol et al., 2009; O'Meara et al., 2011). Sadism appeared as the strongest predictor of criminal cognition and moral disengagement in the present study. Sadistic inclinations do not only exist in brutal criminals but can be commonly trace in nonclinical and noncriminal groups (Buckels et al.; 2013). Sadists actively commit violence, seek pleasure from their aggressive actions and even enjoy the unpleasant consequences rather than passively taking pleasure in others' misery (O'Meara, Davies, & Hammond, 2011). According to criminal behavior research, criminal thinking style (criminal attitudes) is the most important predictor of eventual criminal behavior (Piotrowski, 2019). The total score of the Criminogenic thinking profile and its subscales were found to be negatively associated with healthy personality traits whereas positively related to the self reported antisocial behaviors e.g., psychopathy, aggressive, and personality disorders (Miller, 2001). The available Literature supports the link between dark personality traits and criminal think and the findings of the present study is also on the similar lines.

Another hypothesis of the current study states that “*moral disengagement will mediate the relationship between dark personality traits and criminal cognition*”. Morality is a primary reason why most people refrain from doing significant illegal acts. Depending on the social setting, individuals might disconnect from morality. Moral disengagement is “*the tendency of an individual to adopt mechanisms that allow for the selective disengagement of moral condemnation*”. Moral disengagement enables individuals to participate in self-serving activities that contradict moral ideals while avoiding negative feelings related to self-evaluation e.g., shame, guilt, humiliation, or regrets. Literature present an established link between high levels of

moral disengagement and participation in antisocial behavior (DeLisi et al., 2014). Individuals with the highest degrees of moral disengagement are shown more often delinquent, aggressive, and violent behaviors when compared to those with lower levels of moral disengagement. On the other hand, the individuals who are low on moral disengagement, felt guilty and shame about their deviant actions (Fontaine et al., 2014). Previous research has found strong links between antisocial behavior, moral disengagement, and psychopathic personality traits, with psychopathy scores being positively associated with it (Blackburn, Fawcett & O'Kane, 1996; Shulman et al., 2011). Prior research found the connection between psychopathic traits and criminal conduct by the effect of moral disengagement (Blackburn, Fawcett & O'Kane, 1996; Fontaine et al., 2014; Hyde et al., 2010; Petrucci et al., 2017; Paciello et al., 2008; Shulman et al., 2011). DeLisi and colleagues (2013) also found that moral disengagement mediated the association between criminal onset and psychopathy. The current study has not only focused on psychopathy trait but other domains of dark traits as well, i.e., narcissism, Machiavellianism, and sadism. The study also focuses on different domains of criminal cognition. Findings clearly showed strong mediation by moral disengagement on the association between dark traits (psychopathy, narcissism, and sadism) with criminal cognition and its domains and support another hypothesis of the study. The total score of moral disengagement is utilized to determine the mediation effect, which is validated by prior research (Wang et al., 2017; Zhang et al., 2021).

The key common element across the dark traits has been identified as a deficiency in emotional experience. The traditional approach for investigating emotional perception and identification consists of displaying emotive facial expressions (Dores et al., 2020). Despite the importance of current studies, Ekman believes that facial expressions are both universal (at least in part) and culturally distinctive. The study aimed to explore the moderating role of emotion



recognition in the association between dark traits and criminal cognition. The act of recognizing exhibited human emotions used to evaluate nonverbal responses is known as emotion recognition. In terms of emotional capacities, literature has been suggested that the dark traits commonly share core factor of callousness. A meta-analysis of 71 studies was conducted to highlight the link between dark personality traits and emotional intelligence (Michels & Schulze, 2021). Emotional intelligence (EI) is defined as a “*collection of abilities linked to the detection, processing, and application of affect-related information, such as one's own or others' emotions*” (Mayer & Salovey, 1990; Furnham & Petrides, 2003; Mayer et al., 2016). Of course, recognizing emotion in others is a vital component of social connection. The fact that most of this identification is predicated on nonverbal clues expressive motions, gestures, and extra lingual vocal phenomena raises some important questions about how these cues should be used (Frijda, 1969). The findings revealed that if individuals having dark traits have high emotion recognition ability their criminal cognition will be less. Accurate emotion recognition and categorization have been linked to a variety of favorable outcomes. They are favorable indicators of social skills, friendly and cooperative behaviors, accomplishments in life, whereas they are negative predictors of behavioral issues (Izard et al., 2001). Emotion recognition is the capacity as a valuable social resource implies unfavorable connections with socially maladaptive personal attributes like the Dark Traits. In line with this, many studies found that people with significantly greater Dark Traits scores performed worse on emotion recognition tasks e.g., social-perceptual Theory of Mind, cue detection, recognition of emotions, labeling of the emotions, detection of facial expression etc. (& Ali & Chamorro-Premuzic, 2010; Amiri & Behnezhad; 2017; Dawel et al., 2012; Konrath et al., 2014; Lyons et al., 2010; Stankovi'c et al., 2015; Vonk et al., 2013, 2015). The literature on the negative connections between socially aversive dark traits and

emotional talents supports the idea that the latter is preferable for interpersonal interactions (Diongi, Duradoni, & Vagnoli, 2022; Rogoza & Ciecuch, 2018; Schmitt et al., 2020; Simonet et al., 2017; Southard et al., 2018). As a result, emotion recognition may encourage socially suitable actions while inhibiting deviant tendencies. However, some data suggest that strong emotional talents may generate a wide range of social actions, not all of which are valued (Austin et al., 2007; Cote et al., 2011; Jonason & Krause, 2013). Some research, in particular, focused on the antisocial inclination of emotional aptitude (Schmitt et al., 2020).

One of the hypothesis state that gender has a significant role in the association between variables. In line with our research hypothesis results explained that females are more likely to have better emotion recognition than males. The findings of the study show that dark traits such as Machiavellianism, narcissism psychopathy, and sadism are considerably greater in males than in females, Similarly, criminal cognition and its subdomains, except for emotionally disengaged, were shown to be greater in males than females, while emotionally disengaged is higher in females than males. Only failure to cope and grandiosity were found to be non-significant, whereas the rest of the domains were found to be significant. The literature available on gender differences has found that males consistently outperform women in all Dark Traits (Jones & Paulhus, 2014; Paulhus & Williams, 2002). Men are more likely to commit crimes, they also have a higher prevalence of antisocial personality disorder, conduct disorder, psychopathy, and other psychological and behavioral problems linked with offending behavior. The prevalence of Dark Triad traits in men also suggest that personality may play an important role in criminal behaviors (Lyons, 2019). That supports the research hypothesis. Given that males are more prone to sadism (Buckels et al., 2013), it was critical to rule out this option. Sadism is more prevalent in men than in women. Moral disengagement was related to earlier initiation of criminal activity,

suggesting that the moral disengagement is critical for driving lower-risk individuals toward antisocial behavior. Psychopathy is a strong component that it overpowers the positive components of moral involvement (DeLisi et al., 2014). Contrasted with females, boys are generally display higher levels of moral disengagement and higher acceptance to peer pressure for the offensive behaviors, ((Bandura et al., 1996; Bandura, Barbaranelli, et al., 2001; Bandura et al., 2003; Caprara et al., 2008; Drapeau et al., 2010; Kochanska et al., 2002; Pastorelli et al., 2001; Yadava et al., 2001).

## **5.2 Conclusion**

The current study explored the association between dark traits and criminal cognition among university students. This finding was examined further in terms of moral disengagement as a mediator and emotion recognition as a moderator among university students. The suggested model for the study was verified since the positive link between dark traits and criminal cognition was significantly impacted by the interplay of moral disengagement. The relationship between these factors was also attenuated as a result of moderators, including emotion recognition. The interaction of demographic factors such as gender was also investigated, and substantial interaction effects on the research variables were discovered. The research produced highly important results that institutions, health care workers, practitioners, and experts may use to solve the difficulties encountered by young individuals in their local setting.

## **5.3 Limitations and Recommendations**

Current research had many strengths and the study significantly contributes to the existing literature.

- There is very little work done on current study variables i.e. dark traits and criminal cognition and if the work is present that is specifically on the forensic population and not on the normal population.
- Dark trait i.e. sadism is a newly introduced term in the domain of dark traits so there is very little literature available on it and in the present study, it appeared as a very strong predictor of both criminal cognition and moral disengagement.
- The study highlighted the presence of these dark traits and criminal cognition in association with that in normal population that justify many criminal acts happening around especially in Pakistan in recent decades i.e. Noor Mukadam case. That highlighted the importance of the current study.

Along with the strengths, it is critical to recognize some of this research's possible shortcomings.

- The study was conducted in a smaller area, only the two cities of Pakistan, Rawalpindi, and Islamabad, and only university students were included for the research purpose. Future research can include other populations other than university students. With a modest sample size.
- Our study focused mostly on undergraduate students from several fields. We propose that future researchers do a long-term investigation on several samples i.e. criminals, and younger adolescents to demonstrate the role of the dark traits.
- The research has focused on only one demographic variable i.e gender. Future research is recommended to add other demographic variables as well.
- A cross-sectional research design was used for the current study that is one time period data as dark traits are the traits that are persistent for the personalities and if an

individual doesn't get aware of the presence of these traits they persist throughout the life, so it is proposed that future researches can do a long-term investigation using longitudinal research design to explore these study variable.

- As dark tetrad is a newly developed measure because of academic research restrictions validity of the scale was not established so that future research can establish its convergent and discriminant validity.
- It is suggested that future studies employ this metric in conjunction with other variables i.e. personality disorders, attachment, forgiveness, compassion, etc.

#### **5.4 Future Implications**

Academicians, academics, researchers, and policymakers will benefit from the study's theoretical and practical consequences. First, the findings help to bridge the gap between dark tetrad personality traits and criminal cognition, as well as moral disengagement, which mediates the association between dark tetrad and criminal cognition and emotion recognition moderates the link between dark tetrad and criminal cognition. There are also some practical implications of the study. This study can be used as a baseline for future research. The data indicate that if there is a risk of criminal cognition and behavior disorders owing to dark tetrad personalities, it may be lowered by strengthening moral beliefs and focusing on emotion recognition abilities. In the normal population trends related to dark traits and criminal cognition are becoming more prominent so the school authorities should introduce a curriculum that is based on positive aspects of personality so the positive traits can be inculcated in individuals and children so that they can get benefit out of that in future. Parents, teachers, educational authorities, and healthcare professionals must be educated about the importance of these aspects. Being Muslims we believe in religious aspects. Islam promotes tolerance, forgiveness, compassion, and sympathy so the

religious institutes can also play a role to educate individuals about the brighter side of personality and can help control the impact of the darker side of personality because every individual has both brighter and darker side of personality. Dark tetrad personality qualities are connected with negative personality measurements that manipulate a situation to their advantage, which increases the likelihood of criminal cognitions and acts. As a result, authorities in the health industry must take appropriate action to reduce the negative waves associated with the dark tetrad personality features. To reduce the power of such negative behaviors by promoting moral and ethical ideals and executing consistent training sessions at educational institutions that encourage moral ideas. Finally, organizations can offer career counseling, training sessions, and mentoring services to obtain favorable outcomes from these dark tetrad character traits.

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## رضامندی کا فارم

السلام علیکم

میں نیشنل یونیورسٹی آف ماڈرن لینگویجز اسلام آباد میں M Phil نفسیات کی طالبہ ہوں، اور اپنی ریسرچ میں آپ کا تعاون چاہتی ہوں۔ اگر آپ اس ریسرچ میں شرکت کے لئے راضی ہیں تو آپ کو دیے گئے سوالناموں کو پُر کرنا ہے۔ جس کے لئے آپ کے 25 سے 30 منٹ درکار ہونگے۔ اس بات کا اطمینان رکھیں کہ آپ سے متعلق تمام معلومات پوشیدہ رکھی جائیں گی اور حاصل کردہ مواد صرف ریسرچ کے کام کے لئے استعمال ہوگا۔ آپ سے گزارش ہے کہ دیے گئے سوالناموں کو احتیاط کے ساتھ پڑھیں اور ایمانداری سے جواب دیں۔ آپ کو یہ حق حاصل ہے کہ ریسرچ کے کسی بھی مرحلے پر آپ اس میں سے خارج ہو سکتے ہیں۔ آپ کی شمولیت اور تعاون کہ سراہا جائے گا۔

شکریہ

**Annexure B**

ذاتی قوائف

عورت /	مرد	جنس
	_____	عمر
	_____	تعلیم
	_____	پیشہ

## Annexure C

لوگ اپنی زندگی میں مختلف قسم کے جذبات محسوس کرتے ہیں۔ مندرجہ ذیل بیانات کے مطابق مخصوص صورت حال کا تصور کریں برائے مہربانی ہر سوال کی لیے صرف ایک جواب کی نشاندہی کیجیے جو آپ کے جذبات کی صحیح عکاسی کرتا ہو۔

پُر زور اختلاف = 1، اختلاف = 2، نہ اختلاف نہ حمایت = 3، حمایت = 4، پُر زور حمایت = 5

پُر زور حمایت	حمایت	نہ اختلاف نہ حمایت	اختلاف	پُر زور اختلاف	کیفیات / صورت حال
5	4	3	2	1	
5	4	3	2	1	1۔ لوگوں کو اپنے راز بتانا عقلمندی نہیں۔
5	4	3	2	1	2۔ ہر قیمت پر آپ کو اہم لوگوں کو اپنی طرف کرنا چاہیے۔
5	4	3	2	1	3۔ لوگوں کے ساتھ براہ راست تنازعہ سے بچو کیونکہ وہ مستقبل میں کارآمد ثابت ہو سکتے ہیں۔
5	4	3	2	1	4۔ اگر آپ اپنا کام نکلوانا چاہتے ہیں تو عاجزی اختیار کریں۔
5	4	3	2	1	5۔ صورت حال میں ہیرا پھیری کرنے کے لئے منصوبہ بندی کرنی پڑتی ہے۔
5	4	3	2	1	6۔ خوشامد لوگوں کو اپنی طرف کرنے کا بہترین طریقہ ہے۔
5	4	3	2	1	7۔ مجھے بہت اچھا لگتا ہے جب کوئی چالاکی والے منصوبہ کامیاب ہو جائے۔
5	4	3	2	1	8۔ لوگ مجھے پیدا انٹی لیڈر سمجھتے ہیں۔
5	4	3	2	1	9۔ لوگوں کو اپنی طرف راغب کرنے کی مجھ میں خاص صلاحیت ہے۔
5	4	3	2	1	10۔ بہت سی گروہی سرگرمیاں (Group activities) میرے بغیر چھینکی گئی ہیں۔
5	4	3	2	1	11۔ مجھے پتا کہ میں بہت اہم ہوں کیونکہ ہر کوئی مجھے یہی بتاتا رہتا ہے۔
5	4	3	2	1	12۔ مجھ میں کچھ خصوصی صلاحیتیں ہیں۔
5	4	3	2	1	13۔ میں مستقبل میں کسی نہ کسی شعبے میں خصوصی مقام حاصل کر سکتا / سکتی ہوں۔
5	4	3	2	1	14۔ مجھے کبھی کبھی دکھاوا کرنا اچھا لگتا ہے۔
5	4	3	2	1	15۔ لوگ اکثر کہتے ہیں کہ میں قابو سے باہر ہو جاتا ہوں۔
5	4	3	2	1	16۔ میں حکام اور ان کے اصولوں کے خلاف لڑ سکتا / سکتی ہوں۔
5	4	3	2	1	17۔ میں اپنی عمر اور جنس کے لوگوں کے مقابلے میں زیادہ لڑتا / لڑتی ہوں
5	4	3	2	1	18۔ میں غور و خوض کرنے کے بعد سوال کرتا / کرتی ہوں۔
5	4	3	2	1	19۔ مجھے قانون کے ساتھ مسائل رہتے ہیں۔
5	4	3	2	1	20۔ میں بعض اوقات خطرناک صورت حال میں بچھڑ جاتا / جاتی ہوں۔
5	4	3	2	1	21۔ جو لوگ مجھ سے اچھے ہیں ہمیشہ بچھڑتے ہیں۔
5	4	3	2	1	22۔ لڑائی مار کرائی دیکھنا مجھے اچھا لگتا ہے۔
5	4	3	2	1	23۔ مجھے پُر تشدد فلمیں اور ویڈیو گیمز پسند ہیں۔
5	4	3	2	1	24۔ احمقوں کا ناکام رہنا مسئلہ خیر ہے۔
5	4	3	2	1	25۔ مجھے پُر تشدد کھیل دیکھنا پسند ہے۔
5	4	3	2	1	26۔ کچھ لوگ تکلیفیں سہنے کے لئے ہی بنے ہیں۔
5	4	3	2	1	27۔ میں نے محض تفریح کے لئے سوشل میڈیا پر کچھ غلط (mean) باتیں کیں۔
5	4	3	2	1	28۔ مجھے معلوم ہے کہ لوگوں کو محض باتوں سے کیسے دکھ پہنچانا ہے۔

## Annexure D

درجہ ذیل بیانات اس بات کی عکاسی کرتے ہیں کہ لوگ مخصوص صورتحال میں کیا راہ عمل اختیار کرتے ہیں۔ برائے مہربانی دیے گئے بیانات کے مطابق مخصوص صورت حال کا تصور کریں اور ہر سوال کی لیے صرف ایک جواب کی نشاندہی کیجیے جو آپ کے جذبات کی صحیح عکاسی کرتا ہو۔

پُر زور اختلاف = 1، اختلاف = 2، نہ اختلاف نہ حمایت = 3، حمایت = 4، پُر زور حمایت = 5

پُر زور حمایت	حمایت	نہ اختلاف نہ حمایت	اختلاف	پُر زور اختلاف	کیفیات / صورتحال
5	4	3	2	1	
5	4	3	2	1	1- اپنے دوستوں کی حفاظت کے لئے لڑنا درست ہے۔
5	4	3	2	1	2- جو آپ کے گھر والوں کے لئے برا بھلا بولے اسکو مارنے میں کوئی حرج نہیں۔
5	4	3	2	1	3- اگر آپ کے گروہ کے وقار کو دھمکایا جائے تو لڑنے میں کوئی حرج نہیں۔
5	4	3	2	1	4- اپنے دوستوں کو مصیبت سے بچانے کے لئے جھوٹ بولنا درست ہے۔
5	4	3	2	1	5- اگر لوگ سکول میں لڑتے ہیں یا غلط برتاؤ کرتے ہیں تو یہ انکے استاد کی غلطی ہے۔
5	4	3	2	1	6- اگر لوگ لاپرواہی سے اپنی چیزیں کہیں چھوڑ دیتے ہیں تو ان کا گم یا چوری ہونا ان کی اپنی غلطی ہے۔
5	4	3	2	1	7- جن لوگوں کے ساتھ غلط برتاؤ کیا جاتا ہے وہ اکثر ایسے کام کرتے ہیں جس کی وجہ سے ان کے ساتھ ایسا ہونا چاہیے۔
5	4	3	2	1	8- اگر والدین لوگوں کے ساتھ زبردستی کریں تو لوگوں کے باغی ہو جانے میں ان کی غلطی نہیں۔
5	4	3	2	1	9- کچھ لوگ جانوروں جیسا سلوک کیے جانے کے حقدار ہوتے ہیں۔
5	4	3	2	1	10- اگر کوئی کیڑے مکوڑوں جیسا رویہ اختیار کرے تو اسے ساتھ براسلوک کرنا درست ہے۔
5	4	3	2	1	11- کوئی ناپسندیدہ شخص انسانی سلوک کا مستحق نہیں۔
5	4	3	2	1	12- کچھ لوگوں کے ساتھ روکھا سلوک ہونا چاہئے کیونکہ ان میں دلبرداشتہ ہونے والے جذبات کم ہوتے ہیں۔
5	4	3	2	1	13- چھوٹا مونا جھوٹ بولنا جائز ہے کیونکہ اس سے کوئی نقصان نہیں ہوتا۔
5	4	3	2	1	14- لوگ چھیڑ چھاڑ کرنے کا ہر ذریعہ مناتے کیونکہ وہ سمجھتے ہیں کہ ان میں دلچسپی لی جا رہی ہے۔
5	4	3	2	1	15- کچھ لوگوں کو تنگ کرنا ان کے لئے تکلیف دہ نہیں ہوتا۔
5	4	3	2	1	16- لوگوں کے درمیان بے عزتی کسی کے لئے تکلیف دہ نہیں ہوتی۔
5	4	3	2	1	17- اگر لوگ ناگفتہ بہ حالات میں پروان چڑھ رہے ہوں تو ان کے پُر تشدد دروئیے کے اظہار کو الزام نہیں دیا جاسکتا۔
5	4	3	2	1	18- اگر لوگوں کو نظم و ضبط کی تربیت نہ دی جائے تو انھیں بد تمیزی کا مورد الزام نہیں ٹھہرایا جاسکتا۔
5	4	3	2	1	19- لوگوں کو غلط الفاظ استعمال کرنے پر مورد الزام نہیں ٹھہرایا جاسکتا جبکہ انکے سب دوست ایسا کرتے ہوں۔
5	4	3	2	1	20- اگر لوگوں کے دوست انھیں آکسائیں تو لوگوں کو ان کی بد سلوکی پر الزام نہیں دیا جاسکتا۔
5	4	3	2	1	21- اگر گروہ (gang) کوئی مسئلہ پیدا کرتا ہے تو اس گروہ (gang) میں شامل لوگ کو مورد الزام نہیں ٹھہرایا جاسکتا۔
5	4	3	2	1	22- اگر کوئی بچہ اصول توڑنے کی صورت میں گرفتار ہوتا ہے اور دوسرے لوگ آگے بڑھ کر اس پر عمل کرتے ہیں تو اسے مورد الزام نہیں ٹھہرایا جاسکتا۔
5	4	3	2	1	23- اگر کوئی گروہ مل کر کوئی خطرناک کام سرانجام دے تو کسی ایک لوگ پر الزام لگانا انصاف نہیں۔
5	4	3	2	1	24- ایک شخص کو مورد الزام ٹھہرانا انصافی ہے جس کا گروہ کے تخریبی کاموں میں بہت تھوڑا حصہ ہو۔

5	4	3	2	1	25- کسی کو تنگ کرنے کے لئے تھپڑ مارنا صرف ہاتھ کا مذاق (hand joke) ہے۔
5	4	3	2	1	26- ناپسندیدہ ہم جماعتوں کو مارنا، انہیں سبق سکھانا ہے۔
5	4	3	2	1	27- کسی کی سائیکل بغیر اجازت لینا دراصل ادھار مانگنا ہے۔
5	4	3	2	1	28- کبھی کبھار لہجے کا (غصے سے) اونچا ہو جانا غلط نہیں۔
5	4	3	2	1	29- لوگوں کی چیزوں کو توڑنا اتنا برا نہیں ہے نسبت ان کے جو لوگوں کو مارتے ہیں۔
5	4	3	2	1	30- تھوڑے سے پیسے چوری کرنا اتنا برا نہیں ہے نسبت ان کے جو بڑی رقم چراتے ہیں۔
5	4	3	2	1	31- کسی ہم جماعت کی بے عزتی کرنا ٹھیک ہے، کیونکہ اس کو مارنا زیادہ برا ہے۔
5	4	3	2	1	32- غیر قانونی کام کرنے کی نسبت کسی دکان سے کوئی چیز بلا قیمت لینا زیادہ برا نہیں۔

## Annexure E

درجہ ذیل بیانات میں وہ تمام باتیں ہیں جو لوگ اس وقت کہتے ہیں جب وہ کسی پریشانی یا مسئلے کا سامنا کرتے ہیں۔ دیے گئے بیانات کو غور سے پڑھیں اور نشاندہی کریں کہ یہ آپ کے خیالات کی کس حد تک ترجمانی کرتے ہیں۔

پُر زور اختلاف = 1، اختلاف = 2، حمایت = 3، پُر زور حمایت = 4

کیفیات / صورتحال	پُر زور اختلاف	اختلاف	حمایت	پُر زور حمایت
	1	2	3	4
1- جب مجھے چیزوں کی سمجھ نہیں آتی تو میں انہیں چھوڑ دیتا/ دیتی ہوں۔	1	2	3	4
2- زندگی کی ذمہ داریاں میری سکت سے زیادہ ہیں۔	1	2	3	4
3- میں نے خود سے متعلق چیزوں کو تبدیل کرنا چاہا لیکن یہ بہت مشکل ہے۔	1	2	3	4
4- جب مجھے کوئی زنج (irritate) کرتا ہے تو مجھے خود پہ قابو نہیں رہتا۔	1	2	3	4
5- شرب نوشی یا نشہ آور ادویات مجھے میری مشکلات کو حل کرنے میں مدد کرتے ہیں۔	1	2	3	4
6- جب میں اندر سے برا محسوس کروں یا پریشانی کا شکار ہوں تو میں دوسروں کو تکلیف دینے کی کوشش کرتا/ کرتی ہوں۔	1	2	3	4
7- میں ان لوگوں کے ساتھ نہیں چل پاتا/ پاتی جو مجھ سے بہت زیادہ توقعات رکھتے ہیں۔	1	2	3	4
8- جب بھی میں کسی کے ساتھ کھل کر بات (راز دینا) کروں تو جواب میں مجھے تکلیف ہی ملتی ہے۔	1	2	3	4
9- یہ ضروری ہے کہ دوسروں کے سامنے اپنی اداسی اور افسردگی کا اظہار نہ کریں۔	1	2	3	4
10- یہ ضروری ہے کہ دوسروں کے سامنے اپنے جذبات کا اظہار کر کے اپنی کمزوری نہ دکھائیں۔	1	2	3	4
11- جب بات میرے اپنے جذبات کی آئے تو میں دوسروں کے سامنے خود کو کمزور نہیں دکھاسکتا/ سکتی۔	1	2	3	4
12- جب کوئی چیز مجھے پریشان کرتی ہے تو لوگوں کو مجھے اکیلا چھوڑ دینا چاہیے۔	1	2	3	4
13- اگر میں اپنے جذبات (emotion) کا زیادہ اظہار کروں تو لوگ میرا فائدہ اٹھائیں گے۔	1	2	3	4
14- میرے لئے چوری کرتے وقت ملنے والی خوشی سے بہتر کوئی احساس نہیں۔	1	2	3	4
15- کم آمدن یا تنخواہ والی نوکری سے بہتر ہے کہ میں چوری کر لوں یا نشہ پیوں۔	1	2	3	4
16- شراب پینے یا نشہ کیے بغیر گھر کے کام کرنے سے زیادہ غیر دلچسپ کام میرے لئے اور کوئی نہیں۔	1	2	3	4
17- اگر ہم جلدی میں ہیں تو لوگوں کی نظار کو توڑ کر آگے آجانا ٹھیک ہے۔	1	2	3	4
18- تفریح (مزے) کی خاطر اپنا بیوروٹی یا کام چھوڑنا ٹھیک ہے۔	1	2	3	4
19- مستقبل کی منصوبہ بندی کرنے کی کوئی تک نہیں کیونکہ شاندار اسکول تین بنانے کے لئے آپ نہ ہوں۔	1	2	3	4
20- اگر کوئی چیز آپ کی استطاعت سے باہر ہے تو اس کو اٹھالینا ٹھیک ہے۔	1	2	3	4
21- اگر مجھے کوئی نشہ آور ادویات (drugs) کی پیشکش کرے تو میں استعمال کر لوں گا/ گی۔	1	2	3	4
22- اگر میں کوئی چیز دیکھ لوں جو مجھے چاہئے تو میں اس کو پانے کی خواہش پر قابو نہیں پاسکتا/ سکتی۔	1	2	3	4
23- جو لوگ غلطی کرتے ہیں انہیں کبھی دوسرا موقع نہیں دینا چاہئے۔	1	2	3	4
24- مجھے تعلیم کی ضرورت نہیں کیونکہ میں ہمیشہ پیسے کمانے کے طریقے ڈھونڈ لوں گا/ گی۔	1	2	3	4
25- جیل جانے میں کوئی مضائقہ نہیں۔ میں صرف وقت گزار کر باہر آ جاؤں گا/ گی۔	1	2	3	4
26- اگر میں مستقبل میں کسی جرم کا ارتکاب کرتا/ کرتی ہوں تو میرے پکڑے جانے کا امکان بہت کم ہے۔	1	2	3	4
27- جو (Gambling) یا لٹری (lottery) کھیلنا ایک اچھی انوسٹمنٹ (investment) ہے کیونکہ اگر آپ لمبے عرصے تک کھیلیں تو آپ جیتنے کے پابند ہیں۔	1	2	3	4
28- شراب پنی کر گاڑی چلانا ٹھیک ہے جب تک آپ پکڑے نہیں جاتے۔	1	2	3	4
29- جس طرح کے جرم میں کرتا/ کرتی ہوں ان سے مجھے بہت زیادہ تکلیف نہیں ہوتی۔	1	2	3	4



4	3	2	1	30- میں دوبارہ نہیں پکڑا جاؤں گا کیونکہ میں پولیس سے زیادہ ہوشیار ہوں۔
4	3	2	1	31- مجھے سکول میں ایک پریشانی یہ بھی تھی کہ میں اپنے زیادہ تر اساتذہ سے زیادہ سمجھدار ہوں۔
4	3	2	1	32- ٹریڈنٹ پروگرام میری مدد نہیں کر سکتے کیونکہ میں زیادہ تر کونسلر سے زیادہ سمجھدار ہوں۔
4	3	2	1	33- جب جنسی تعلق کی بات آئے تو یہ عورت کی ذمہ داری ہے کہ وہ برتھ کنٹرول کا خیال رکھے۔
4	3	2	1	34- جیل اور دارالامان میں رہنا بہتر ہے کیونکہ وہ آپ کی رہائش، کھانے اور علاج کے اخراجات ادا کرتے ہیں۔
4	3	2	1	35- اگر آپ سرکاری امداد حاصل کر سکتے ہیں تو سارا دن کام کرنے کی تک نہیں بنتی۔
4	3	2	1	36- بچوں کی پرورش کرنا صرف عورت کی ذمہ داری ہے۔
4	3	2	1	37- جو پولیس آفیسر اور جج قانون شکنی کرتے ہیں انہیں بھی باقی سب کی طرح سزائیں ملنی چاہئیں۔
4	3	2	1	38- قانون شکنی کرنا کوئی بڑی بات نہیں ہر کوئی کرتا ہے۔
4	3	2	1	39- اپنے خاندان کی دیکھ بھال کے لئے قانون توڑنا کوئی بری بات نہیں۔
4	3	2	1	40- شراب نوشی پالنے میں کوئی قباحت نہیں اگر آپ اپنے بچوں کے سامنے نہیں کرتے۔
4	3	2	1	41- اگر آپ اپنے دروازے کو تالہ نہیں لگاتے تو آپ لٹ جانے کے حقدار ہیں۔
4	3	2	1	42- بعض اوقات نشہ کرنا بری بات نہیں کیونکہ اعلیٰ حکام بھی نشہ کرتے ہیں۔
4	3	2	1	43- اگر کسی کو غیر قانونی سرگرمی سے فائدہ ہو سکتا ہے تو وہ میں بھی ہو سکتا / سکتی ہوں۔
4	3	2	1	44- دوسروں کے مقابلے میں مجھ میں زیادہ مثبت خصوصیات ہیں۔
4	3	2	1	45- عظمت میرے مقدر میں لکھ دی گئی ہے۔
4	3	2	1	46- مجھ میں ایک ماہر کھلاڑی، فنکار یا نامور شخصیت بننے کی صلاحیت ہے۔
4	3	2	1	47- میں اپنی برادری میں احترام کا دعویٰ دار ہوں۔
4	3	2	1	48- اپنے اڈوس بڑوس کے لوگوں میں معزز ہونا بہت ضروری ہے۔
4	3	2	1	49- جو لوگ مجھے واقعی جانتے ہیں وہ سمجھتے ہیں کہ میں ایک غیر معمولی (extraordinary) شخصیت ہوں۔
4	3	2	1	50- میری مثبت خوبیوں کے آگے میری غلطیاں چھوٹی پڑ جاتی ہیں۔
4	3	2	1	51- اگر میں کبھی قانون شکنی کروں تو میرے ساتھ منصفانہ عمل ہونا چاہئے۔
4	3	2	1	52- دوسروں کی پریشانی میں برا محسوس کرنا سمجھ سے باہر ہے۔
4	3	2	1	53- میں ان لوگوں کے بارے میں پریشان نہیں ہوتا / ہوتی جنہیں میں نے تکلیف دی ہو
4	3	2	1	54- جن لوگوں کے ساتھ فریب ہوتا ہے وہ اس کے مستحق ہیں۔
4	3	2	1	55- جن لوگوں کے پاس آپ سے زیادہ ہے ان سے چیزیں ہتھیالینے میں کوئی قباحت نہیں۔
4	3	2	1	56- کاروباری اداروں میں چوری کرنے میں کوئی حرج نہیں کیونکہ انکی ادائیگی انشورنس کے ذریعے ہو جاتی ہے۔
4	3	2	1	57- کبس ورکرز، پرومیشن آفیسر اور کانسٹبلز کبھی بھی میری مدد کرنے کے قابل نہیں ہوں گے۔
4	3	2	1	58- اگر کوئی میرے ساتھ برا کرے تو میں اس کے ساتھ دگنا برا کروں گا / گی۔
4	3	2	1	59- اپنا منافع حاصل کرنے کے لئے دوسرے لوگوں کا استعمال کرنے میں کوئی حرج نہیں۔
4	3	2	1	60- جب میں ان لوگوں کے بارے میں سوچتا / سوچتی ہوں جن کو میں نے تکلیف دی تو میں برا محسوس نہیں کرتا / کرتی کیونکہ مجھے معلوم ہے کہ وہ اسکے مستحق تھے۔
4	3	2	1	61- مجھے اخبارات (news) میں آنے والے حادثات کی کم پرواہ ہوتی ہے کیونکہ انکا میری زندگی سے کوئی تعلق نہیں بنتا۔
4	3	2	1	62- اگر مجھے علاج کے لئے زبردستی بھیجا گیا تو میں سب کے لئے مشکل کھڑی کر دوں گا / گی۔
4	3	2	1	63- مجھے غصے پر قابو پانے کا سلسلہ ہے لیکن میں ایسا / ایسی ہی ہوں۔
4	3	2	1	64- جب مجھے غصہ آتا ہے تو میں کبھی کبھار دوسروں کو مارتا / مارتی ہوں کیونکہ یہ میری روایت کا حصہ ہے۔
4	3	2	1	65- مجھے ضرورت ہے کہ میں اپنے آس پڑوس میں خود کو غصیلا دکھاؤں۔

## Annexure F

دی گئی آنکھوں کی تصاویر میں سے ان الفاظ کا انتخاب کریں جو تصویر میں موجود شخص کی سوچ یا احساسات کی ترجمانی کرتے ہیں۔ آپ کے نزدیک ایک سے زیادہ الفاظ بھی موافق ہو سکتے ہیں مگر آپ سے گزارش ہے کہ صرف ایک لفظ کا انتخاب کریں جو سب سے زیادہ موضوع ہے۔ اپنے جواب کا انتخاب کرنے سے پہلے اس بات کو یقینی بنائیں کہ آپ نے دیے گئے چاروں الفاظ کو بخور پڑھا ہو۔ آپ دی گئی سرگرمی کو جلد سے جلد کرنے کی کوشش کی جیسے البتہ آپ کے وقت کو ناپا نہیں جائے گا۔ آپ کی آسانی کے لئے تمام الفاظ اردو اور انگریزی دونوں میں تحریر کئے گئے ہیں۔ آپ سے گزارش ہے کہ تمام تصاویر کا بخور جائزہ لیں اور کسی ایک لفظ کا انتخاب کریں۔

p	jealous حسد کرنے والا	Panicked گھبرا یا ہوا	arrogant مغرور	hateful نفرت انگیز
1	playful پُر مزہ	comforting تسلی بخش	Irritated چڑچڑا	Bored بیزار
2	Terrified خوفزدہ	Upset پریشان	Arrogant منکبر	Annoyed ناخوش
3	Joking مضحکہ خیز	Flustered الگھا ہوا	Desire ہوس	convinced قائل
4	Joking مضحکہ خیز	Insisting اصرار	Amused خوش	Relaxed آرام دہ
5	Irritated چڑچڑا	Sarcastic طنزیہ	Worried پریشان	Friendly دوستانا
6	Aghast حواں باختہ	Fantasizing خیالی	Impatient بے صبر	Alarmed خوفزدہ / ہوشیار
7	Apologetic معذرت خواہ	Friendly دوستانہ	Uneasy بے چینی	Dispirited مایوس / حوصلہ پست کرنا
8	Despondent مایوس / اداس	Relieved نجات مانا	Shy شرم	Excited پُر جوش
9	Annoyed ناخوش	Hostile مخالف	Horrified خوف زدہ	Preoccupied منہمک ہونا / محو
10	Cautious ہوشیار	Insisting اصرار	Bored بیزار	Aghast حواں باختہ
11	Terrified خوف زدہ	Amused خوش	Regretful پچھتانا	flirtatious دکھاوے کی محبت دکھانے والی
12	Indifferent لا تعلق	Embarrassed شرمندہ	Sceptical شکی	Dispirited مایوس / حوصلہ پست کرنا
13	Decisive فیصلہ کن	Anticipating متوقع	Threatening دھمکی آمیز	Shy شرم
14	Irritated چڑچڑا	Disappointed مایوس	Depressed اداس	Accusing الزام دہی
15	Contemplative سوچ میں ڈوبا ہوا	Flustered مضطرب	Encouraging حوصلہ افزا	Amused خوش
16	Irritated چڑچڑا	Thoughtful متفکر	Encouraging حوصلہ افزا	Sympathetic ہمدرد

17	Doubtful شکی	Affectionate پیار بھرا	Playful چٹپٹ	Aghast حواس باختہ
18	Decisive فیصلہ کن	Amused خوش	Aghast حواس باختہ	Bored بہزار
19	Arrogant متکبر	Grateful شکر گزار	Sarcastic طنزیہ	Tentative ہچکچاہٹ
20	Dominant غالب	Friendly دوستانہ	guilty احساس جرم	Horrorified خوف زدہ
21	Embarrassed شرمندہ	Fantasizing خیالی	Confused الٹھا ہوا	Panicked گھبرا یا
22	Preoccupied منہمک ہونا / محو	Grateful شکر گزار	Insisting اصرار	Imploring الٹھا کرنا
23	Contented مطمئن	Apologetic معذرت خواہ	Defiant مخالف	Curious متجسس
24	Pensive فکر مند	Irritated چڑچڑا	Excited پرجوش	Hostile دشمن / مخالف
25	Panicked گھبرا یا	Incredulous منکر	Despondent مایوس	Interested دلچسپی
26	Alarmed خوفزدہ / ہوشیار	Shy شرم	Hostile مخالف	Anxious فکر مند
27	Joking مضحکہ خیز	Cautious ہوشیار	Arrogant متکبر	Reassuring تسلی بخش
28	Interested دلچسپی	Joking مضحکہ خیز	Affectionate پیار بھرا	Contented مطمئن
29	Impatient بے صبر	Aghast حواس باختہ	Irritated چڑچڑا	Reflective خیال میں ڈوبا ہوا
30	Grateful شکر گزار	Flirtatious دکھاوے کی محبت دکھانے والی	Hostile مخالف	Disappointed مایوس
31	Ashamed شرمندہ	Confident پر اعتماد	Joking مضحکہ خیز	Dispirited مایوس / حوصلہ پست کرنا
32	Serious سنجیدہ	Ashamed شرمندہ	Bewildered حیران	Alarmed خوفزدہ / ہوشیار
33	Embarrassed شرمندہ	Guilty احساس جرم	Fantasizing تصوراتی	Concerned متعلق ہونا / فکر مند
34	Aghast حواس باختہ	Baffled دقیانوسی	Distrustful بے اعتمادی	Terrified خوف زدہ
35	Puzzled متذبذب	Nervous پریشان	Insisting اصرار	Contemplative سوچ میں ڈوبا ہوا
36	Ashamed شرمندہ	Nervous پریشان	Suspicious مشکوک	Indecisive غیر یقینی

**Annexure G**

**Scales' Permission**

11/16/22, 10:36 PM

Gmail - CTP access



mariam khan &lt;mani.khan18.mk@gmail.com&gt;

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**CTP access**

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**Mitchell, Damon (Criminology and Criminal Justice)** <mitchelldam@ccsu.edu>  
To: mariam khan <mani.khan18.mk@gmail.com>

Tue, Dec 22, 2020 at 11:56 PM

Dear Mariam Khan,

Sorry for the delay. Attached are the materials you requested,

Damon Mitchell, Ph.D.

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**From:** Mitchell, Damon (Criminology and Criminal Justice) <mitchelldam@ccsu.edu>  
**Sent:** Wednesday, June 1, 2016 1:03 PM  
**To:** Christopher A. McMullen <Christopher.McMullen@mhmrct.org>  
**Subject:** FW: CTP access

Dear Dr. McMullen,

Sorry for the delay in getting back to you. Attached is a copy of the CTP also with a scoring sheet and profile sheet and some of the research on the scale. Unfortunately, we do not have a formal manual yet for the scale. Please let me know if I can of further assistance.

Damon Mitchell, Ph.D.  
Professor  
Department of Criminology and Criminal Justice  
Central Connecticut State University  
1615 Stanley Street

New Britain, CT 06050  
Telephone: 860-832-2924  
E-mail: [mitchelldam@ccsu.edu](mailto:mitchelldam@ccsu.edu)

Hello Dr Mitchell,  
I work for MHMR of Tarrant County in Fort Worth, TX. It is a local mental health authority and one of the populations that we serve is the criminal justice group. I was wondering what is needed in order to obtain a copy of the scale to screen our clients. Thanks.

Chris McMullen  
Clinical Supervisor for Trauma Informed Care Initiative  
C-682-225-7097  
O-817-569-4610

11/16/22, 10:34 PM

Gmail - I am writing to request permission to use scale The SRP-III



mariam khan &lt;mani.khan18.mk@gmail.com&gt;

## I am writing to request permission to use scale The SRP-III

Paulhus, Delroy <dpaulhus@psych.ubc.ca>  
 To: mariam khan <mani.khan18.mk@gmail.com>

Wed, Nov 11, 2020 at 8:44 AM

The SRP, including the short form, has to be purchased from the publisher (Multi-Health Systems).

You can use the SD4, which is in the attached article. It includes narcissism, Machiavellianism, and sadism as well as psychopathy.


Good luck,

dp

**From:** mariam khan [mailto:mani.khan18.mk@gmail.com]  
**Sent:** November 10, 2020 9:41 AM  
**To:** Paulhus, Delroy <dpaulhus@psych.ubc.ca>  
**Subject:** I am writing to request permission to use scale The SRP-III

[CAUTION: Non-UBC Email]

[Quoted text hidden]

 SD4.in.EJPA.2020.pdf  
404K

11/16/22, 10:32 PM

Gmail - I am writing to request permission to use scale Moral Disengagement scale



mariam khan &lt;mani.khan18.mk@gmail.com&gt;

## I am writing to request permission to use scale Moral Disengagement scale

Gianvittorio Caprara <gianvittorio.caprara@uniroma1.it>  
 To: mariam khan <mani.khan18.mk@gmail.com>

Tue, Nov 10, 2020 at 11:52 PM

Dear Mariam Khan,

I am glad to accord the permission to use the scale to assess Moral Disengagement we have developed. You may ask for the version of the scale in italian or english at :

[Maria.gerbino@uniroma1.it](mailto:Maria.gerbino@uniroma1.it).

or,

[m.paciello@uninettunouniversity.net](mailto:m.paciello@uninettunouniversity.net)

Scoring requires that you standardize them on your population.

Sincerely, GVCaprara

[Quoted text hidden]

Le informazioni contenute in questo messaggio di posta elettronica sono strettamente riservate e indirizzate esclusivamente al destinatario. Si prega di non leggere, fare copia, inoltrare a terzi o conservare tale messaggio se non si è il legittimo destinatario dello stesso. Qualora tale messaggio sia stato ricevuto per errore, si prega di restituirlo al mittente e di cancellarlo permanentemente dal proprio computer.

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11/16/22, 10:37 PM

Gmail - I am writing to request permission to use scale Reading the mind in the Eyes (RMET)



mariam khan &lt;mani.khan18.mk@gmail.com&gt;

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## I am writing to request permission to use scale Reading the mind in the Eyes (RMET)

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Joanna Davis &lt;jd695@medschl.cam.ac.uk&gt;

Fri, Jan 8, 2021 at 6:08 PM

To: mariam khan &lt;mani.khan18.mk@gmail.com&gt;

Hi Miriam, just a bit more information for you regarding our tests:

*All the information you should need to use and understand all our tests is accessible from links that appear alongside each test in the Tests section of our website: [http://www.autismresearchcentre.com/arc\\_tests](http://www.autismresearchcentre.com/arc_tests)*

*These include instructions, scoring keys and relevant scientific research papers where the tests have been used, tested and validated. Permission is not required to use any of our tests; we ask that you use the test responsibly and reference our work where appropriate. You may not adapt or modify any of these tests, unless permission has been given by the Autism Research Centre.*

*We recommend that you do not modify any wording in the questionnaires, as this could alter the interpretation of these tests, even for subtle modifications. All of the tests posted on our website have been scientifically validated by us and changes to the wording of any of the questions in our tests, or modifications, would require further independent validation.*

Very best of luck with your research.

Best wishes

Jo

Joanna Davis  
Autism Research Centre Administrator / Admin Team Leader  
Autism Research Centre  
Department of Psychiatry  
University of Cambridge  
Douglas House  
18B Trumpington Road  
Cambridge CB2 8AH  
01223 465215  
[www.autismresearchcentre.com](http://www.autismresearchcentre.com)  
To support autism research: [www.justgiving.com/autismresearchtrust](http://www.justgiving.com/autismresearchtrust)

