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Time's Grip: Unveiling The Nexus Of Procrastination, Time Perception To Criminal Capability

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ABSTRACT
The study aimed to explore the impact of procrastination and time perception on criminal tendencies. Data from a general population group with dark triad personalities and a prison inmate group were collected and analyzed using t-tests and binary logistic regression. Results indicated a significant difference in present fatalistic time perception between the two groups. Binary logistic regression confirmed present fatalistic time perception as a predictor for criminal capability. The study suggests that those with such a perception may feel controlled by external forces, potentially informing strategies to develop a more internal locus of control to reduce criminal activity.

Keywords*; Procrastination, time perception, ability to commit crime, criminal tendency*

INTRODUCTION

Research on crime causation, despite numerous studies, faces ongoing challenges due to evolving criminal methods and motives. This study proposes a model based on procrastination and time perception as predictive variables for criminal behaviour. Over the years, criminologists have explored internal factors influencing criminal tendencies. Sutherland's 1947 theory emphasized learned behaviour, suggesting individuals adopt criminal actions from their environment, peers, and media. Sykes and Matza's neutralization theory (1957) argued that criminals internally rationalize their actions to alleviate guilt. In 1990, Gottfredson and Hirschi introduced the self-control theory, associating low self-control with a lack of resistance to committing crimes for immediate gratification. Impulsivity, another psychological construct linked to criminal tendencies, is explored through the UPPS Model's traits: urgency, lack of perseverance, lack of premeditation, and sensation seeking. Researchers are refining the understanding of impulsivity's role in criminal behaviour.

Procrastination

Procrastination, observed since ancient times, is mentioned in the Bhagwat Gita, with repercussions discussed in Hinduism. Wherein Krishna warns people to be always on guard against undisciplined, vulgar, malicious, lazy, and procrastinating behaviour, as such an agent is called Taamiska agent (Gandhi, Sfroheimer & Nagla, 2002) Academic research on procrastination in India mainly focuses on academic procrastination, neglecting other forms like decisional procrastination. Western research traces procrastination's roots to societal deadlines, contrasting rural societies. Milgram, Gehrman, and Keinan (1992) conducted initial research, while Ferrari, Johnson, and McCown (1995) delved into the prevalence, causes, and treatment of procrastination. Their studies proposed distinctions between functional and dysfunctional forms of procrastination. Procrastination's harmful effects include correlations with anxiety, depression, and psychopathy.

Definitions of procrastination vary, but common ground emphasizes harm caused by it through delaying tasks. Personality traits, particularly conscientiousness, play a role, with a negative correlation between conscientiousness and procrastination (Steel, 2007). Procrastination's origins are linked to evolutionary traits, suggesting a genetic basis which is further supported by twin studies of Arvey, Rotundo, Johnson & McGue, 2003. The results of the study showed approx. 22% of variance associated with the genetic factors (Steel, 2007). Time perception the second variable in the present study is also shown to contribute to procrastination, with present-oriented perspectives linked to lower self-control (Stolarski, Zajenkowski, Jankowski Szymaniak, 2020) and increased procrastination.

In summary, procrastination's multifaceted nature involves historical, cultural, psychological, and evolutionary dimensions. Studies explore its impact on mental health, personality traits, and potential connections to criminal tendencies, offering varied perspectives on this pervasive behavior. The present study aims to view procrastination as a predictor to criminal tendencies. But procrastination's potential positive role in crime prevention lacks empirical support. Studies indirectly link procrastination to crime through psychopathy, as psychopathic traits positively correlate with active procrastination (Sanecka, 2020). Another indirect link between them can be established by using the predictor of impulsivity. Literature review shows impulsivity to be a strong predictor to both procrastination & Crime (Rebetez, Barsics & Van der Linden, 2018)

Time Perception

Despite its historical presence, the impact of subjective time perception on human cognition and behavior has been debated by psychologists, philosophers, and scientists. There are two approaches to view time perspective. The first being an objective approach of viewing, “what is the time right now?. The second approach to time perspective, known as the "subjective approach" or psychological time, diverges from the objective, scientific view of time. This perspective, rooted in the philosophy of Immanuel Kant, treats time as a personalized, internal experience. It has gained popularity among

researchers, particularly social scientists exploring aspects like time congruity, time intensity, and time personality.

Immanuel Kant, in 1781, proposed that subjective time perception reflects an individual's innate ability, shaping their worldview. Existential psychologists and philosophers, such as Feuserl (1964) and Heidegger (1927), highlighted Kant's notion of time as a crucial aspect of human existence. William James (1950) in his most popular book 'The Principles of Psychology' emphasized the importance of time perception's influence on human behaviour, that he devoted an entire chapter on time perception. Bandura, in his self-efficacy theory, integrated temporal influences, considering past experiences, present appraisals, and future options (Keough, Zimbardo & Boyd, 1999). Gestalt psychologist Kurt Lewin defined time perspective (TP) as an individual's views of psychological future and past.

Zimbardo and Boyd expanded on this, introducing the Stanford Time Perception Inventory, a self-report measure assessing time perception. According to them time perception involves assigning personal and social experiences to temporal categories that further shapes their judgments, decisions, and actions. Zimbardo and Boyd (1999) emphasized that an individual's dominant temporal frame, whether past, present, or future, significantly influences their life choices. Individuals may exhibit biases toward past, present, or future orientations, impacting their characteristic habits, behaviors, and decision-making. Zimbardo advocates for a "balanced time perspective," allowing flexibility in navigating past, present, and future demands. Research by Vasile (2015) identified cognitive correlates influencing time perception, including age, social exclusion, religion, education, and social class. Zimbardo and Boyd's model categorizes time perception into Past Negative, Past Positive, Present Hedonistic, Present Fatalistic, and Future dimensions. This model evolved to include additional dimensions like Transcendental-Future, Carpe-Diem (Present-Eudemonic), and Prenatal orientation.

Positive Past Time Perception involves individuals with affectionate memories, while Negative Past Time Perception focuses on gloomy past details. Present Hedonistic individuals prioritize immediate gratification, whereas Present Fatalistic individuals feel powerless about the future. Positive and Negative Future Time Perception relates to individuals focused on future goals or worrying about future outcomes. These dimensions provide insights into individual differences in time perception, influencing emotional states, behavior, and even criminal tendencies.

The present study aims to examine time perception as a predictor to criminal tendencies. In examining time perception's connection to crime, indirect links suggest that present-oriented perspectives, associated with dark triad personalities (Birkas & Csatho, 2015), may predict criminal tendencies. But unfortunately, due to lack of direct empirical relation between the two variables, these are just claims and that is why the present study is being conducted to fill in the research gap existing regarding an association between different aspects of temporal.

Dark triad and criminal tendencies

Many research studies have explored the fascinating connection between the Dark Triad personality traits – narcissism, Machiavellianism, and psychopathy – and the tendency to commit crimes. A study carried out by Jones and Paulhus in 2011 found that people with high scores in the Dark Triad were more likely to get involved in different types of antisocial behavior, including criminal activities. Building on this, Miller and Lynam's research in 2012 highlighted how psychopathy, a key element of the Dark Triad, was a robust predictor of both general and violent criminal offenses. Further supporting these findings, a meta-analysis by Muris and colleagues in 2017, combining insights from multiple studies, reinforced the link between Dark Triad traits and a propensity for criminal behavior. These collective insights underscore the importance of comprehending these dark personality traits when evaluating and addressing criminal tendencies.

METHODOLOGY

Aim

The aim of the present study was to assess the role of procrastination and time perception on the ability to commit crime.

Hypotheses

1. There would be a significant difference between the two sample populations on procrastination.
2. There would be a significant difference between the two sample populations on Past Positive Time Perception.
3. There would be a significant difference between the two sample populations on Past Negative Time Perception.
4. There would be a significant difference between the two sample populations on Present Hedonistic Time Perception.
5. There would be a significant difference between the two sample populations on Present Fatalistic Time Perception.
6. There would be a significant difference between the two sample populations on Positive Future Time Perception.
7. There would be a significant difference between the two sample populations on Negative Future Time Perception.
8. Procrastination would be a significant predictor of the ability to commit crime.
9. Past Positive Time Perception would be a significant predictor of ability to commit crime
10. Past Negative Time Perception would be a significant predictor of ability to commit crime
11. Present Hedonistic Time Perception would be a significant predictor of ability to commit crime
12. Present Fatalistic Time Perception would be a significant predictor of ability to commit crime
13. Positive Future Time Perception would be a significant predictor of ability to commit crime
14. Negative Future Time Perception would be a significant predictor of ability to commit crime

Variables in the Present Study

Predictor Variables

- Procrastination
- Time Perception

Outcome Variables

- Time perception

Sample

Since the study is a comparison model, there were two different groups of participants;

Group I, the comparison group, comprised individuals from the general population without a criminal record, exhibiting at least one dark triad personality trait (Narcissism, Machiavellianism, or psychopathy). Initial screening involved a two-month process using a dark triad questionnaire, with 200 participants initially, but only 50 qualifying for further analysis. In stage two, these 50 participants underwent self-report measures for procrastination and time perception.

Group II, the test population, consisted of prison inmates from three Indian jails, with permissions from relevant authorities. Of the 125 collected responses, 35 were discarded due to incomplete or hastily filled questionnaires. Thus, the study analyzed responses from 139 participants, including 75 from Sabarmati jail, 50 from Tihar jail, and 25 from Rohini jail.

Inclusion & Exclusion criteria

Participants with at least one dark triad personality trait (psychopathy, narcissism, or Machiavellianism) will be included based on previous literature linking these traits to maladaptive behaviors (Babiak 1995; Johnson et al. 2012; Jones 2014; Tang et al. 2008). All three traits are

associated with a lack of empathy and a sense of entitlement (Paulhus & Williams, 2002), suggesting the capability to engage in criminal or unlawful activities.

Questionnaires Used

The present study uses three different self-report measures to assess the participants for screening them as well as their occurrence on the predictor variable.

- Short Dark Triad Questionnaire (SD3) by Jones & Paulhus (2013)
- Pure Procrastination Scale by Piers steel (2010)
- Zimbardo Time Perception Inventory-Short (ZTPI-Short) by Klicperova´-Baker, Lukavska & Katerina (2015)

Data Analysis

The study employed t-scores to compare the two groups on procrastination and time perception variables. For examining the structural relationship between the ability to commit crime, procrastination, and time perception, logistic regression was chosen. Logistic regression was selected due to the continuous nature of the independent variables and the categorical nature of the dependent variable. This statistical model enables the exploration of cause-and-effect relationships in the context of our study.

RESULTS

Table 1, shows the difference between the two-sample population, which are people who have previously committed a crime and people who have not committed a crime but do have an innate tendency (presence of dark triads). The present study used t-test for independent sample as a comparison statistic. The results show that 100 participants who have previously committed a crime ($M = 9.7$, $SD = 2.6$) compared to the 49 participants who have not committed a crime but do possess tendency to commit a crime demonstrated a significant difference on the Present Fatalistic Time Perception variable, $t(137) = 2.4$, $p < 0.05$. This implies that our hypothesis no. 12 is retained as the t-scores show a significant difference between the two-sample population with regards to the present fatalistic time perception.

Table 1

Differences in the two-sample population based on the present study's independent variables

Variables	Ability to commit a crime	Mean	SD	t	Sig. 2 tailed
Procrastination	*Committed a crime*	34.9778	8.40944	-1.889	0.061
	not committed a crime	37.8367	8.73772		
Past-Positive TP	*Committed a crime*	10.1333	2.67405	-.312	0.756
	not committed a crime	10.2857	2.89396		
Past Negative TP	*Committed a crime*	10.4889	3.08401	-.437	0.663
	not committed a crime	10.7143	2.54951		
Present Hedonistic TP	*Committed a crime*	9.2222	2.88264	1.766	0.080
	not committed a crime	10.1224	2.84775		
Present Fatalistic TP	*Committed a crime*	9.7889	2.64997	**2.420**	**0.017**
	not committed a crime	8.6327	2.76657		
Future Positive TP	*Committed a crime*	9.5222	2.79336	-.057	0.955
	not committed a crime	9.5510	2.96550		
Future Negative TP	*Committed a crime*	9.2889	2.74064	-1.329	0.186
	not committed a crime	9.9388	2.77945		

To test the research objective, the binary logistic regression was done. Table 2,3 & 4 summarizes the binary logistic regression results. In the present study, whether an individual's ability to commit crime (Committed a crime-1, not committed a crime-0) was taken as a dependent variable; Procrastination and Time Perception were taken as independent variables.

Table 2

Diagnostics for Proposed Regression Model

Hosmer and Lemeshow Test			Model Summary	
Chi-square	df	Sig.	Cox & Snell R Square	Nagelkerke R Square
8.145	8	.419	.114	.156

Note. N=139

Table 3

Classification Table

Observed	Predicted		
	Not committed crime	Committed crime	Percentage Correct
Not committed a crime	13	36	26.5
Committed a crime	12	78	86.7
			65.5

Note. N=139

Table 3 is a classification table that provides an indication of how well the model is able to predict the correct category once the predictors are added into the study. This is sometimes also known as percentage accuracy in classification or the PAC. In the present study the proposed model correctly classifies 65.55% of the overall cases. Which implies that the degree to which our outcome (i.e., the ability to commit a crime) can be predicted by the model is 65.5%.

Table 4 shows the relationship between the predictors and the outcome variables. The first column shows the value of Beta, which is the predicted change in Log Odds, that is for every 1 unit change in predictor there will be a Exp(B) change in the probability outcome. Therefore, the regression slope for Present Fatalistic Time Perception is positive and statistically significant indicating that the probability of a respondent who will commit a crime has a higher present fatalistic time perception. This implies that the odds of an individual committing a crime is 1.269 times higher when they have a high present fatalistic time perception. The results in this variable are therefore are predicting of the outcome variable with a 95% confidence interval from 1.079 to 1.439. Therefore, our hypothesis no 5 is retained as the Present Fatalistic Time Perception is significantly predicting the ability to commit a crime. However, our other predicting variables of procrastination, past positive time perception, past negative time perception, present hedonistic time perception, future positive time perception and future negative time perception do not seem to significantly predict the outcome of ability to commit a crime in an individual; H1, H2, H3, H4, H6, H7 are not supported.

Table 4

Logistic Regression Variable Table

Predictors	Coefficient estimate Beta (B)	Standard error	Wald	*p* value	Odds Ratio Exp(B)
Procrastination	-.039	.024	2.612	.106	.962
Past Positive TP	-.013	.076	.031	.860	.987
Past Negative TP	.030	.079	.147	.702	1.031
Present Hedonistic TP	-.116	.074	2.447	.118	.890
Present Fatalistic TP	.238	.083	8.285	**.004***	**1.269**
Future Positive TP	-.023	.072	.099	.753	.978
Future Negative TP	-.141	.082	2.969	.085	.868

Note. $N = 139$, $R^2 = 0.156$, TP=Time Perception, *p<.05

DISCUSSION

This study aimed to explore the impact of procrastination and time perception on criminal behavior. The findings revealed that Present Fatalistic Time Perception significantly influences an individual's likelihood to commit a crime. This aligns with Kim, Hong, Lee & Hyun (2017) study, which demonstrated that a present-oriented time perspective negatively affects self-control compared to a higher future-oriented perspective.

Beyond Kim, Hong, Lee & Hyun (2017), various studies support the hypothesis that individuals with a heightened present-oriented time perception exhibit poor self-control. Numerous works in the literature, including research by Treiber & Wikström (2007), Antonaccio & Tittle (2008), and Tittle, Ward & Grasmick (2003), consistently link low self-control to criminal tendencies, echoing the influential Hirschi and Gottfredson (1990) theory of crime.

Examining the relationship between time perspective and substance abuse, Fieulaine & Martinez (2010) found that a present-oriented time perspective poses a risk factor for substance abuse, while a future-oriented perspective acts as a protective factor. This outcome was attributed to the deficiency of self-control in individuals with a heightened present time orientation. A parallel study by Henson, Carey, Carey & Maisto (2007) demonstrated a significant association between present-oriented time perception and more frequent engagement in risky behaviors, some of which are clear indicators of criminal tendencies, such as excessive use of illegal drugs and drinking and driving.

Furthermore, hypothesis 5 of this study posits a significant distinction between two populations: those who have committed a crime and those who haven't, particularly concerning present fatalistic time perception. This upheld hypothesis reinforces the findings of the regression model in the present study, indicating that a high orientation toward present fatalism is a significant predictor of the ability to commit a crime.

Individuals with a present fatalistic time perception tend to believe that external, uncontrollable forces govern their lives. They perceive themselves as being controlled by these forces, viewing themselves as slaves to circumstances and unable to master their own lives. Consequently, when they engage in criminal activities, they attribute their actions to external factors—such as the environment, people, situations, conditions, bad luck, or destiny. According to this perspective, it is not they themselves but rather external forces that drive them to commit acts such as theft, violence, abuse, or abduction.

These hypotheses find support in studies like the one conducted by Gierowski & Rajtar in 2003. Their study aimed to assess the locus of control in individuals who commit criminal acts, analyzing reports from studies involving fifty-four perpetrators. The results revealed a significant and positive correlation (0.530) between an external locus of control and psychoticism. Additionally, there was a negative correlation between an external locus of control and a general sense of coherence, indicating that individuals with an external locus of control have a diminished sense of comprehensibility, meaningfulness, and manageability in their lives. Consequently, these individuals are more drawn to the chaos associated with criminal acts.

This aligns with Rotter's (1996) theory of locus of control, which emphasizes that individuals with an external locus of control tend to lack a well-developed sense of responsibility. Instead of being guided by self-control, they are driven by the pursuit of immediate gratification.

The study's relevant hypothesis aligns with Walter C. Reckless's containment theory, which links deviant behavior to an individual's locus of control. Reckless (1967) compared the susceptibility to criminal influence to the risk of infection, classifying environmental factors around a human's life as "push" and "pull" factors (Reckless, 1967). "Push" factors involve social conditions prevalent in deviant subcultures, while "pull" factors are internal, like resistance to authority or emotional disorders.

The containment theory proposes that an individual's locus of control serves as a protective shield against the infection of criminality. Reckless believed that individuals with an external locus of control are more susceptible to these environmental variables because they have an inherent need to conform to those around them, leading them toward conformist behavior. On the other hand, individuals with an internal locus of control exhibit greater self-control, possess a strong sense of morality, and accept legal norms. Reckless argued that developing an internal locus of control acts as a shield against external pressures that may lead to criminal behavior, while individuals with an external locus of control are more vulnerable to the "what will be will be" attitude that may contribute to criminal tendencies.

McElwee & Haugh (2009) note that individuals with a present fatalistic time perception often lack a clear understanding of their future selves and the potential consequences they might face—a cognitive pattern associated with criminal behavior. Beyond crime, this time perception has been linked to various destructive behaviors, including pathological gambling, substance addiction, and lower pro-environmental behavior (Hodgins & Engel, 2002; Daugherty & Brase, 2010; Corral-Verdugo, Fraijo-Sing & Pinheiro, 2006). Stolarski et al. (2016) found a strong correlation between excessive aggressive tendencies and this time perception. Zimbardo (1999) suggests that individuals with this time perception often feel stuck or hopeless in their present reality, leading to frustration and heightened aggression—a trait strongly correlated with criminal tendencies in available literature.

CONCLUSION

The present study highlights the significant role of Present Fatalistic Time Perception in predicting an individual's ability to commit crimes. By demonstrating that those with a heightened belief in external, uncontrollable forces are more susceptible to criminal tendencies, the study underscores the importance of addressing time perception and locus of control in interventions aimed at crime prevention. Future research could explore the broader implications of time perception across diverse cultural and socioeconomic contexts, providing further insights into strategies for reducing criminal behavior.

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