A sötétség megvilágítása: a személyiségjegyek, impulzivitás és a rosszindulatú kreativitás közötti kapcsolat

Értekezés a doktori (Ph.D.) fokozat megszerzése érdekében
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Abreviations

MCBS- Malevolent Creativity Behavior Scale

MCT – Malevolent Creativity Test

BIS-11 – Baratt Impulsiveness Test

MACH – Machiavellianism

MC – Malevolent creativity **FFM**

– Five Factor Model

MC – Malevolent creativity

BC – Benevolent creativity

AUT – Automatic AperceptionTest

DPCM – Dual Pathway to Creativity Model

IPV – Intimate partner violence

BPD – Borderline personality disorder

UPPS-P model – Measurement of impulvity (premeditation – lack of; urgency; sensation seeking; perseverence – lack of)

ASPD – antisocial personality disorder

SUD – substance use disorder

MDT – malevolent divergent test

NCT – computational network control theory

DMN – Default Mode Network

DD – Dirty Dozen

DT- Dark Triad

SD3- Short Dark Triad

K-DOCS – Kaufman Domains of Creativity Scale

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Abstract

Keywords: malevolent creativity, Dark Triad, self-efficacy, self-esteem, impulsivity

Malevolent creativity refers to the capacity to generate novel ideas intended to cause harm or destruction. In recent years, scholarly interest in this phenomenon has expanded substantially, leading to significant advancements in the literature. The present thesis aims to identify the psychological components associated with malevolent creativity. To this end, a comprehensive understanding of the characteristics of both criminal and non-criminal populations is essential for advancing research in this domain.

This thesis comprises two main studies. The first one, a pilot study, examines the associations between malevolent creative behavior and specific personality traits, namely subclinical narcissism, psychopathy, and Machiavellianism—collectively referred to as the Dark Triad—as well as constructs related to self-efficacy and self-esteem. The second and main study extends this inquiry by investigating the role of impulsivity in malevolent creativity, moving beyond the examination of stable personality traits to consider dynamic behavioral tendencies. Particular emphasis is placed on differences among three distinct groups: incarcerated offenders (experimental group), members of the general population and police officers (control group).

In the pilot study, 130 male offenders participated, all serving custodial sentences ranging from several months to life imprisonment for a variety of offenses. Juveniles and female offenders were not included in our sample. The findings provided partial support for the hypothesis that early onset of criminal behavior (ages 16–20) would predict elevated malevolent creativity, specifically on the "harming others" subscale of the Malevolent Creative Behavior scale. Further, the results supported the hypothesis that the number of committed offenses correlates with greater malevolent creative ideation in the domain of harming others. Although Machiavellianism was hypothesized to predict malevolent creativity, it was only confirmed for lying and harming others subscales. Self-efficacy had also a predictive power for the lying subscale.

The main study adopted a more complex design, involving 368

participants: 140 prisoners, 122 police officers, and 106 individuals from the general population. Additionally, two distinct measures of malevolent creativity were employed (self-reported malevolent creativity behavior - Malevolent Creativity Behavior Scale, and willingness to engage in malevolent creativity and malevolent potential - Malevolent Creativity Test) considering it a novel contribution to the field. Results indicated that prisoners scored significantly higher on the Lying subscale of the Malevolent Creativity Behavior Scale (MCBS) compared to both police officers and the general public. However, prisoners demonstrated lower malevolent innovation potential, as measured by the number of ideas generated for acts of revenge on the Malevolent Creativity Task (MCT), relative to police officers. No significant differences were observed between groups in their willingness to engage in malevolent ideation on the MCT.

In line with prior research, police officers exhibited higher levels of Machiavellianism compared to prisoners. Group differences in psychopathy were also observed, with the general population reporting higher psychopathy scores than the police officer sample. Additionally, prisoners exhibited the highest levels of impulsivity among all groups. Malevolent creative behavior was positively associated with the length of incarceration, number of imprisonments, and prior offenses. Contrary to previous findings, Machiavellianism was negatively associated with malevolent creativity in this sample. Importantly, the results further support the proposed link between impulsivity and malevolent creativity.

A notable limitation of the study is that prisoners may have demonstrated lower malevolent creative potential on the MCT due to concerns about the potential consequences of generating harmful ideas or perceptions of negative evaluation based on their responses.

Absztrakt

Kulcsszavak: rosszindulatú kreativitás, Sötét Triád, énhatékonyság, önértékelés, impulzivitás

A rosszindulatú kreativitás azon képességet jelenti, amely új ötletek generálására irányul mások ártása vagy rombolása céljából. Az elmúlt években a tudományos érdeklődés e jelenség iránt jelentősen megnövekedett, amely a témához kapcsolódó szakirodalom számottevő bővülését eredményezte. A jelen disszertáció célja a rosszindulatú kreativitással összefüggő pszichológiai tényezők vizsgálata. Ennek érdekében alapvető fontosságú mind a bűnelkövetői, mind a nem bűnelkövetői populációk jellemzőinek átfogó megértése, hogy előmozdítsuk a kutatást ezen a területen.

A disszertáció két fő kutatást foglal magában. Az első, egy elővizsgálat, a rosszindulatú kreatív viselkedés és bizonyos személyiségvonások – nevezetesen a szubklinikai nárcizmus, a pszichopátia és a machiavellizmus (összefoglalóan Sötét Triád) –, valamint az énhatékonysággal és önértékeléssel kapcsolatos konstrukciók közötti összefüggéseket vizsgálja. A második, egyben fő vizsgálat kibővíti az előző elemzést azáltal, hogy az impulzivitás rosszindulatú kreativitásban betöltött szerepét is vizsgálja, túllépve a stabil személyiségvonások elemzésén, és figyelembe véve a dinamikus viselkedési tendenciákat. Különös hangsúlyt kapnak a három mintacsoport közötti eltérések: a szabadságvesztésüket töltő elítéltek (kísérleti csoport), az általános népesség tagjai és a büntetés-végrehajtási tisztek (kontrollcsoport).

Az elővizsgálatban 130 férfi elítélt vett részt, akik különböző bűncselekmények miatt hónapoktól életfogytig terjedő szabadságvesztést töltöttek. A mintavételből fiatalkorúakat és nőket kizártunk. Az eredmények részlegesen alátámasztották azt a hipotézist, miszerint a bűnözői pálya korai kezdete (16–20 éves kor) előre jelezheti a magasabb szintű rosszindulatú kreativitást, különösen a mások bántása alskálán. Továbbá az eredmények megerősítették azt a feltételezést is, hogy a bűncselekmények számának növekedése együtt jár a mások bántására irányuló rosszindulatú kreatív viselkedés magasabb szintjével. Bár a Machiavellizmus előrejelző szerepét is feltételeztük, ezt az eredményeket kizárólag a hazugságra és mások bántására irányuló alskálák esetében támasztották alá. Az énhatékonyság statisztikailag

szignifikáns prediktív kapcsolatot mutatott a hazugság alskálán elért eredményekkel.

A fő vizsgálat összetettebb kutatási tervet alkalmazott, amely 368 résztvevőt foglalt magában: 140 szabadságvesztését töltő elítéltet, 122 büntetés-végrehajtási tisztet és 106 főt az általános népességből. Emellett a rosszindulatú kreativitás mérésére két különböző mérőeszközt alkalmaztunk: az önbevalláson alapuló Rosszindulatú Kreativitás Viselkedési Skálát, valamint a Rosszindulatú Kreativitás Tesztet, amely a rosszindulatú kreatív potenciált és a cselekvésre való hajlandóságot hivatott mérni.

Az eredmények szerint a börtönpopuláció tagjai szignifikánsan magasabb pontszámokat értek el a Rosszindulatú Kreativitás Viselkedési Skála (MCBS) hazugság alskáláján, mint a büntetés-végrehajtási tisztek és az általános populáció tagjai. Ezzel szemben a fogvatartottak a Rosszindulatú Kreativitás Teszten (MCT) alacsonyabb rosszindulatú innovációs potenciált mutattak, azaz kevesebb bosszúálló ötletet generáltak, mint a büntetés-végrehajtási tisztek. A rosszindulatú kreatív gondolkodásban való részvételi hajlandóság tekintetében nem mutatkozott szignifikáns különbség a csoportok között.

Összhangban a korábbi kutatásokkal, a büntetés-végrehajtási tisztek magasabb szintű Machiavellizmust mutattak az elítéltekhez képest. A pszichopátia tekintetében is csoportkülönbségek mutatkoztak: az általános népesség tagjai magasabb pszichopátia-pontszámokról számoltak be, mint a tisztek. Az impulzivitás szintje a fogvatartottak körében volt a legmagasabb a három csoport közül. A rosszindulatú kreatív viselkedés pozitív összefüggést mutatott a szabadságvesztés időtartamával, az ítéltek számával és a korábbi bűncselekmények mennyiségével. A korábbi eredményekkel ellentétben a jelen mintában a Machiavellizmus negatív korrelációt mutatott a rosszindulatú kreativitással.

Fontos korlátot jelent, hogy a fogvatartottak a Rosszindulatú Kreativitás Teszten alacsonyabb rosszindulatú kreatív potenciált mutattak, amely összefügghet azzal, hogy tartottak a káros ötletek generálásának lehetséges következményeitől, illetve attól, hogy negatív megítélésben részesülnek esetleges válaszaik miatt.

Introduction

This PhD thesis was inspired by the desire to delve deeply into the concept of malevolent creativity, which had only a few studies in the field in 2019. However, there has been a noticeable increase and interest in the number of studies conducted in recent years, indicating that malevolent creativity is a concept with implications in psychological processes and factors.

This research attempts to investigate the phenomenon of malevolent creativity, which has received little attention in prison systems, with just a few studies (in Russian) and surface studies on the relationship between this construct and crime. The research on this new construct stems from a wish to highlight the fact that people who are deprived of their liberty exhibit more innovative activity than the general population or clinical population.

The paucity of research on malevolent creativity (MC) among the criminal population, the need to gather genuine information on this phenomenon that is unexplored from a phenomenological and methodological standpoint, and the need to create an overview of the features of malevolent creativity to be used in the work with prisoners during their detention period, but with probable post-detention involvement, are the motivations behind the initiation of this thesis.

This PhD thesis begins with the premise that a large prisoner population might worsen concerns such as mental health, social isolation, and a lack of constructive outlets for creativity, perhaps leading to the blooming of malevolent creativity. Maybe not all of them, but a greater number of inmates would suprize us about the ingeniosity with which they can commit a crime/offense, trying to operate again after their release from the forensic setting. Also, we suppose that analyzing the high numbers of incarceration in all over Europe, together with the rates of recidivism are also a worthy rate, because in Romania in 31.12.2022 from the total number of 21878 inmates, 65.9% had more than one incarceration (Program Justice- Norway Grants). In 2022, the overall number of inmates in the European Union was around 483,600. This result reflects a significant 12.5% decline from 2012, when the jail population peaked at roughly 553,000—the greatest number of convicts recorded since 1993. The enormous increase in prisoner numbers from 1993 to 2012, which amounted to a

24% increase, may be traced mostly to a boom in major criminal activity across Europe during that time.

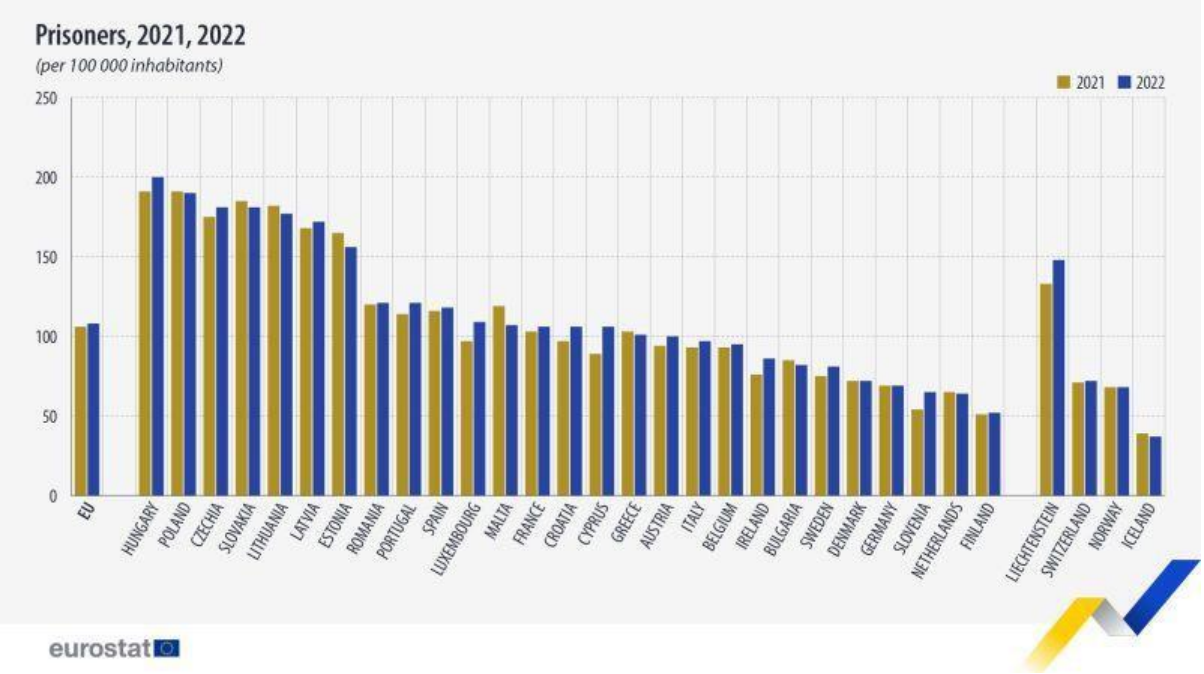


Figure 1. Incarceration rate in Europe in 2021 and 2022

The dynamics of imprisonment rates have prompted fundamental concerns about the underlying causes of these developments. The rise in major crimes, which led to the previous growth in prison populations, corresponded with a number of socioeconomic issues, including economic downturns and adjustments in public safety policies that may have favoured harsher tactics. In the years since 2012, however, many measures targeted at decreasing overcrowding and fostering rehabilitation have begun to take effect, contributing to a decrease in imprisonment.

Furthermore, this decreased trend reflects larger shifts in criminal justice practices throughout EU member states, with some nations implementing more progressive tactics centred on alternative sentencing, restorative justice, and support networks for at-risk populations. Such approaches seek not only to reduce the strain on the prison system, but also to treat the underlying reasons of criminal behaviour, resulting in a more effective and compassionate approach to justice.

The changing landscape of incarceration in the EU emphasises the importance of continual study and assessment of these changes' success, notably in terms of public safety, recidivism rates, and the overall impact on

communities. Understanding the intricacies of these developments is critical for politicians and scholars as far as for us in this thesis, for considering the future of criminal justice in Europe.

Our study approach suggests understanding the interpretive valences of the concept of malevolent creativity and then filtering them in a theoretical-referential framework. The theoretical perspectives chosen for this study will be founded on the research's outcomes and will address the following areas of interest: malevolent creativity, personality traits (Dark Triad, self-esteem, self-efficacy, Machiavellianism, psychopathy) and impulsivity.

The goal of this study is to determine the factors that are associated with malevolent creativity, therefore understanding the characteristics of the criminal population as well as the control group is critical for doing good research in this field. This contrast will assist us identify the mechanisms that drive malevolent creativity.

We consider that several issues regarding the mechanisms involved must be addressed in order to develop scientific knowledge about this complex and understudied phenomenon of malevolent creativity. However, it must be approached scientifically, particularly strictly from a theoretical and methodological standpoint all the studies that were designed in this work. It's also worth noting that this population is difficult to study because it lives in an isolated environment with distinct characteristics, different social and living norms and values within the prison, a well- established hierarchy, and functioning in the interactions they have with one another and with police personnel.

This thesis first aim in the pilot study to investigate the relationship between malevolent creative behaviour along with specific traits, subclinical narcissism, psychopathy, and Machiavellianism, known as the Dark Triad, efficacity of one’s, and self-worth. This type of behaviour of malevolence includes lying, playing tricks, and causing purposeful harm to other people. We proposed to investigate the role that personality has in deceitful and harmful behavior, as well as to offer insight into the psychological mechanisms and underlying motivations that drive people to engage in such conduct. This study aims to advance knowledge of the variables influencing malevolent creativity

and offer suggestions for remediation or preventative actions.

Simultaneously, in the second stage of the study, we aimed to investigate impulsivity's connection to malevolent creative behaviour, going beyond personality traits like psychopathy and Machiavellianism. Here, we place a great focus on the variations between the three samples: the experimental group - prison population the control group — which includes the normal sample and the police sample. By investigating different populations and groups, we proposed to acquire a better knowledge of the personality traits involved in malevolent creativity, providing insights into risk factors, intentions, and potential interventions to address malevolent behaviour. The overall purpose of this doctoral thesis is to further gather understanding

of this complex and varied topic by investigating the link between MC and personality factors across multiple samples. This study tries to understand the intricacies of malevolent behaviour and its ramifications for people and society as a whole by diving into the underlying psychological features that drive malevolent creativity. This study seeks to provide a nuanced comprehension of the factors impacting MC, as well as potential influences and grades of associations, through a thorough examination of personality characteristics and cognitive structures.

This study is aimed at contributing to the current literature on personality psychology, creativity, and behavioural ethics by investigating malevolent creativity using a multidimensional approach that takes into account a variety of samples and psychological instruments.

Finally, our research is aimed at broadening our knowledge of malevolent creativity and its repercussions for individual well-being and societal peace, opening up opportunities for future studies as well as real-world uses in psychology and beyond. The findings might help to shape therapies, policies, and practices aimed at mitigating the detrimental impacts of malicious behaviour while building an ethical and socially responsible culture.

Because little research has been done outside of the study of the normal population, we believe it is necessary to study malevolent creative behavior in parallel with other types of samples (incarcerated and police). The novelty of our research is an important contribution to the literature in several ways, including

the study of an unique sample- inmates; and above we made comparisons between three types of samples, also by using both malevolent creativity measurement (the Malevolent Creativity Test and The Malevolent Creativity Behavior Scale).

This PhD thesis is the result of a collaboration between the author and leading scholars in the field: David Cropley and Corinna Perchtold-Stefan, whose crucial contributions have expanded the study and increased its potential effect. Professor David Cropley is one of the originators of a concept of malevolent creativity, and he defines it using the Functional Model of Creativity in Terrorism and Crime (Cropley, 2008). He is a Professor of Engineering Innovation at the University of South Australia. He specialised in assisting individuals and businesses to become better, more effective problem solvers. In 1990, Dr Cropley joined the South Australian Institute of Technology's (SAIT) School of Engineering.

Corinna Perchtold-Stefan is a professor at the University of Graz's Department of Psychology, Faculty of Natural Sciences, and her primary research interests include malicious creativity, dark personality characteristics, and emotion regulation. She and her research team developed the Malebvolent Creative test, an open-ended test that assesses the originality and malevolence of replies. This measurement is a scientifically validated and accurately measuring tool for malevolent creativity.

This research has guided and was supported from varied viewpoints, methodological rigorousness, and interdisciplinary insights attributable to a collaboration with these two distinguished scholars with a great expertise in personality psychology, creativity, and malevolent creativity. The combined wealth of knowledge of these colleagues has contributed to the study's broadness and complexity, allowing an in-depth examination of malevolent creativity and its relationship with other psychological factors.

This study's collaborative character with the two eminent researchers allowed for the incorporation of cutting-edge research approaches, theoretical frameworks, and empirical data, enhancing the academic discussion on malevolent creativity and its link to personality traits. The collaboration with notable academics has not only improved the study's methodological rigour but

has also enabled a more nuanced understanding of the intricate interplay between personality characteristics, cognitive systems, and hostile behaviour. This joint endeavour's discoveries have the potential to guide treatments, policies, and practices targeted at minimising the negative effects of malevolent behaviour in the future.

The structure of the thesis

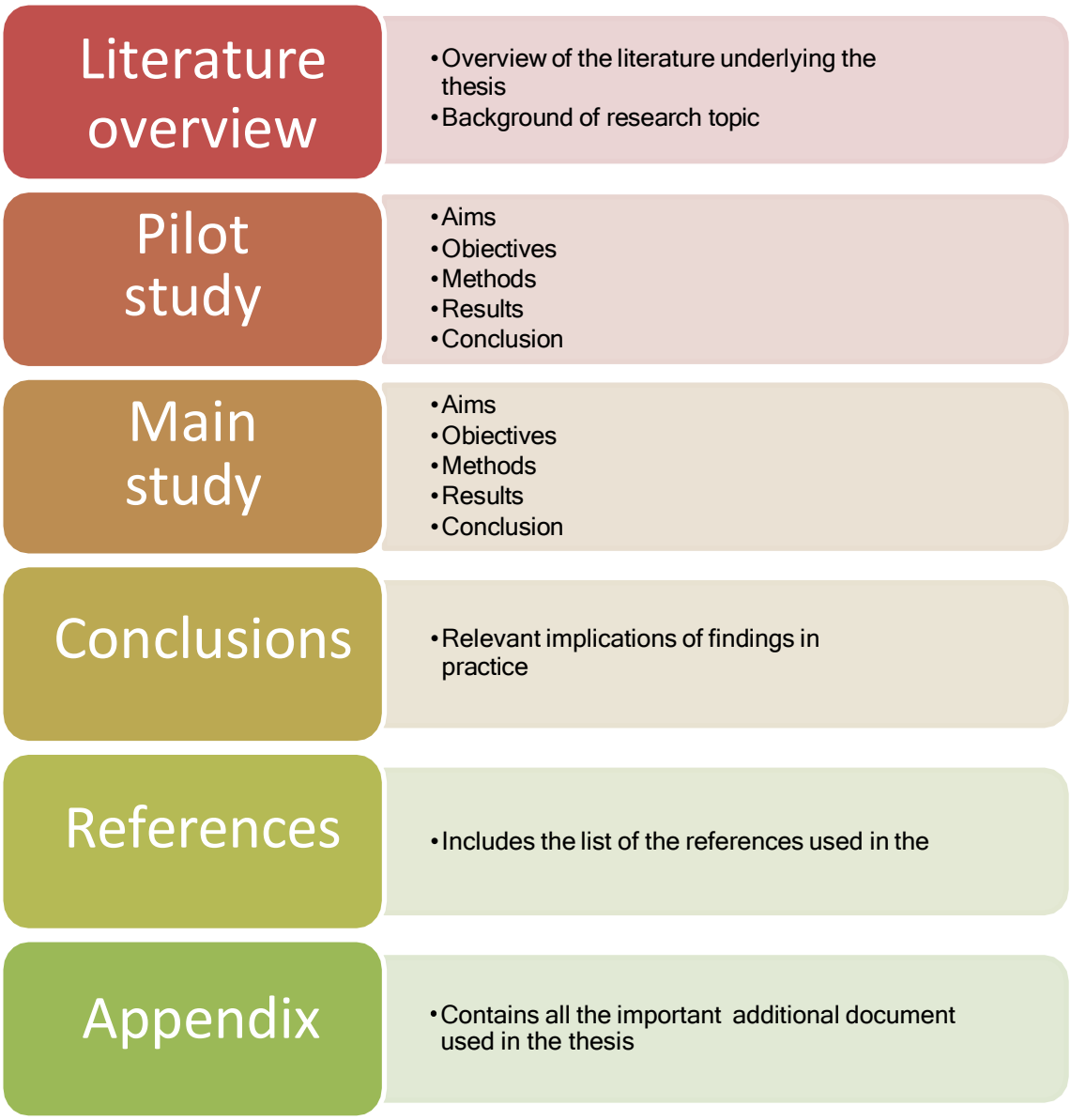


Figure 2. The representation of the thesis

Above in the figure 2 is the design of the thesis, and also it`s vizual representation.

The introduction to our thesis provides an analysis of the literature on key themes such as malevolent creativity and numerous associated variables.

This highlights the important role that MC plays and the numerous studies that have been carried out to better understand it. Because our samples were composed solely of men, we also concentrated on books or articles in this section of our thesis that were simply conducted with men, so that through the literature overview there will be reflected accurately the researches evidence. In some parts, we did include studies made also with women, but there will be mention

also the gender of the participants to make a clear separation. In the first part, we conducted a review about malevolent creativity, next about the relationship that has creativity with intelligence, although our study did not include intelligence as a studied variable, we considered it helpful to take an overview about the potential benefits including it in future researches. We continued the overview describing the dark personality traits: narcissism, and Machiavellianism, in an effort to understand the complex relationships between them. At the psychopathy trait, we made a clear separation of the sublinical and the clinical psychopathy, because in our pilot study we tested the sublinical trait, and in the main study we investigated the clinical psychopathy trait. We also mention sadism, as the recently researches have included in the dark personality trait model the forth element, the subclinical trait of sadism, but we explain our opinion why we did not included it in our pilot study. In this section, we further describe the concept of self-efficacy and self-esteem, next impulsivity. Lastly, we are making an overview about the measurement of malevolent creativity. Specifically, we concentrated in this section on summarising the links between these attributes and malicious creativity, which has already been studied in the literature.

The next section includes our pilot study, which aimed to investigate the traits linked to malevolent creativity, the Dark Triad personality traits, self-esteem and perceived effectiveness in prisoners kept in a Romanian maximum-security facility. Through an analysis of these distinct characteristics within this specific demographic, our objective is to acquire a more profound comprehension of the fundamental elements that give rise to aggressive conduct. This understanding will facilitate the creation of focused interventions that promote rehabilitation and lower the recidivism rate among incarcerated people. Important research components, including the methodology and study design, are covered in detail in this section. Along with summarizing or explaining each specific scale or questionnaire, we provide an overview of the tools that were used. In this context, we also include the study's results, which provide a statistical description of the data. At the end of the chapter, we attempt to interpret the results by conducting a thorough analysis in conjunction with the body of literature in the area of research, taking into account the obtained results.

In the third section as similar with the second chapter, we described the aim, objective, methods, including the two measurements that evaluate malevolent creativity, through a self-reported measure Malevolent Creativity Behavior Scale (MCBS) and a measure of a cognitive potential test, the Malevolent Creativity Test (MCT). Because of the earlier insignificant result, we opted not to include narcissism as we had in the pilot study. In this instance, comparisons between the experimental group (inmated) and the two control groups (the general population and the police sample) were made to investigate the similarities and differences in malevolent creativity. In addition, we have provided a detailed analysis of our findings, including group comparisons, descriptive statistics, and correlation analysis. The results discussion gave a summary of the research's advantages and disadvantages and indicated how much the literature could back up the study's original findings.

Using the two submitted studies regarding the general concept of malevolent creativity behaviour, chapter four seeks to draw some significant conclusions about summarizing our main and important findings. In this chapter, we attempt to provide guidelines regarding the utility of our findings, which are in line with the literature and highlight both the strong and weak points that these investigations revealed. Additionally, we attempt to outline future directions for investigation, emphasising the need to broaden the scope of the field's investigation into malignant creativity.

The list of references used in the thesis is included in the following chapter.

The appendix of the thesis, which includes the instruments, some of the in three languages (romanian, hungarian and in english), the ethical approval, a list of the author's publications, and a record of conference participations, is contained in the final chapter.

1. Literature overview

1.1. Malevolent creativity

Malevolent creativity has been referred to as ”*the dark side—creativity that is deliberately planned to damage others*” (p. 106, Cropley et al., 2008). The most obvious settings in which malevolent creativity can be found are in terrorist attacks (September 11, 2001), in war, and in situations where technological innovation is used to intentionally harm others in order to secure victory for those using it. We outline some of the most significant products of malevolent creativity for better understanding. Since the concept of MC has recently appeared in the literature, researchers have considered Cropley's definition of MC incomplete and have subsequently made several remarks and observations on the definition.

Further commentary has also been provided on the Functional Model of Creativity in Terrorism and Crime (Cropley et.al., 2008), which is the first theory that has determined some pertinent details regarding the concept of malevolent creativity. *“Although we concede that lying can indeed be viewed as an unethical act, we argue that lying does not necessarily indicate the perpetuator of the lie intended to cause harm” (Hunter et al., p. 126).* Furthermore, Hunter et al. (2021) contend that deviance, crime, and lye are not always harmful deeds because they can also be seen as beneficial or even constructive in different contexts or situations. It may come as a surprise to hear that there is no connection between malevolent creativity and innovation. This disconnection is also probably even more pronounced in the case of malevolent innovation, since it is obvious that violent ideation is unlikely to ultimately translate into violent action. Other criticism is formulated by Pearson (2021), and it’s adding another aspect to this debate about the construct of malevolent creativity, which has many objections.

Mitchell and Reiter-Palmon (2023, p.48) has some same viewpoints about the model of malevolent creativity: *“We argue that imprecise language and theory have culminated in confusion concerning how we approach defining the construct of malevolent creativity, and that this shaky foundation causes the*

measurement concerns the field has today. Specifically, we explore how measures that have been used in "traditional" creativity research predict malevolent creativity and how the recent measures purporting to predict or measure malevolent creativity add value on top of the traditional measures". When MC first emerged, Runco (2010) made some arguments against the idea that creativity has a dark side. However, he highlights that it is possible that the researchers who studied this issue misunderstood the differences between the creative process and the creative output. He claims that while the creative process may be immoral, the finished work cannot be. Although Michell and Reiter- Palmon (2023) concur that malevolent creativity is the darker side of creativity, they do not entirely agree with Runco's (2010) point of view, given the ambiguity surrounding the definition of the term. MC should be defined in light of the creative output's effectiveness and novelty. Further research on the phenomenon and its associations with personality traits, such as those found in the Hexaco and FFM models of personality, should be carried out to identify meaningful relationships between these components (Michell & Reiter-Palmon, 2023).

The study of malevolent creativity has exploded in the last few years, greatly expanding the body of literature. Research has been carried out on a wider variety of samples, such as prisoners (Bochkova, 2023; Szabo et al., 2022); young offenders (Barbot et al., 2020); and people displaying abnormal conduct (Meshkova & Enikolopov, 2020). Nonetheless, it is clear that most research has concentrated on the general population, with students receiving special attention (Perchtold-Stefan et al., 2022b; Kaufman et.al., 2009).

Also, we know that the relationship between malevolent creativity and aggression is now in great focus due to the proven connections that were studied in this area of research. The MC problem facilitated the expression of implicit aggression and premeditation traits via MC, whereas the benevolent creativity (BC) problem inhibited those traits. This suggests a trait-situation interaction and lends support to the theory of trait activation (Tett & Guterman, 2000; Harris & Reiter- Palmon, 2015). Furthermore, there was a significant correlation found between the aggression score and the MCBS score (Hao et al., 2016). People who are physical aggressive generated malevolent creative ideas

when solving Automatic Aperception Test (AUT) problems than people with lower levels of aggression, according to earlier research (Lee & Dow, 2011). The fact that aggressive people generally see open-ended tasks as somewhat malevolent could help to explain this finding. The association between malevolent creative ideation and aggression varies according to gender. As females may not engage in a direct manifestation of aggression and choose to implicate themselves in an insidious way, males do not proceed in this manner because they will engage in conducts that will be easily acknowledged to be in the category of physical aggressive as they enhance responses to a task with MC (Japp, 2023). Baas et al. (2019) found that while social threats did not increase the total number of malevolent brick uses in a divergent thinking test, they did increase the ratio of malevolent to neutral ideas and the number of original malevolent brick uses. The number of original malevolent negotiation tactics as well as the total number of malevolent negotiation tactics increased in their second study due to social threats. Results further demonstrate that a high social threat induces MC, especially in those with a high need for cognition, which supports a motivational explanation of their. In response to social threats, the participants of the study were more inclined to defend and become aggressive because of their dispositional motivation to process pertinent information in a systematic manner (Baas et al., 2019). Moreover, scholars have investigated the connection between malevolent creativity and aggression, aiming to comprehend how aggressive inclinations could impact or be impacted by malevolent creative actions (Jiaqi et al., 2024). Based on the General Aggression Model and on the four stages of creative thought, it was maintained that aggression has a negative impact on malevolent creativity and that anger rumination and effortful control have a moderated mediation effect on the relationship between those variables. proof that malevolent creativity can arise when anger is ruminated upon. Additionally, they subtly endorse the dual pathway to creativity model (DPCM), which postulates persistence pathway in anger rumination fosters malevolent creativity. Additionally, in contrast to earlier research, effortful control acts as a positive moderator between malevolent creativity and angry rumination, so it is suggested that exerting effort to maintain control could aid those who engage in angry rumination in their unconscious

processing of the task (Jiaqi et al., 2024). Perchtold-Stefan et al. (2023) found that, although it did not reach statistical significance, women exhibited a tendency to manifest social aggression more frequently than men when malevolent creativity was examined to reveal gender differences. Differences may appear compared to men in the neural bases because men were found to be much more capable of malevolent creativity, and their ideas also included more physical violence (at trend level) than those of women. So this can be interpreted as saying that when men have to respond to tasks in which they have to enhance malevolent creative revenge ideation or even plans, they will present tactics that are physical methods through which punishment is applied (such as beatings, mutilation, physically dangerous practical jokes, and murder). It is possible that they use these tactics because they require a higher level of mental imagery and motor-related processing (Perchtold-Stefan et al., 2023). According to Li et al.'s (2022) findings, psychological resilience was negatively correlated with childhood trauma in addition to being linked to increased aggression and malevolent creativity. In particular, it was found that the relationship between malevolent creativity and childhood trauma was partially mediated by aggression. Furthermore, it was discovered that in this mediation model, psychological resilience level had a moderating effect. Remarkably, the degree of resilience among individuals was found to increase the indirect effect of childhood trauma on malevolent creativity through aggression, indicating a complex interplay between these variables.

Malevolent creativity as a studied construct was the subject of early research after the appearance of the Functional Model of Creativity in Terrorism and Crime (Cropley et.al., 2008), and the results were encouraging and indicated a strong correlation with hostility (Lee & Dow, 2011). Another study has obtained the same results, indicating that people with higher Malevolent Creativity Test (MCT) scores came up with more malevolent creative ideas and hostility (Perchtold-Stefan et al., 2020a). Additionally, the authors found that these individuals performed better on tests of originality and idea fluency. Not only is animosity the motivational equivalent of malevolent creativity, but these people also react more easily to situations that are thought to be provocative. Another study discovered that (MC) potential is a positive predictor of

malevolent creativity behaviours among college students (Shi et al., 2023). Specifically, students with high MC potential were more likely to participate in real hostile creative behaviours. This study not only emphasises the link between an individual's creative ability and their proclivity for malicious behaviour, but it also emphasises the practical importance of the malevolent innovation transformation paradigm (Hunter, 2021). The effect of malicious creativity (MC) potential on MC behaviour among college students was mediated by moral disengagement, corroborating the idea that moral concerns affect the exploration stage. Furthermore, the findings reinforce the notion that creativity is a two-edged path: although it may drive innovation and problem-solving, it can also lead to harmful or immoral behaviour if not properly managed. This dichotomy is especially important in institutions like colleges, where the drive to perform and the opportunity to explore ideas may sometimes lead to detrimental forms of creativity (Shi et al., 2023).

Anger is another construct that is now well researched, and we can consider that in one study (Rui et al., 2021), the anger group outperformed the neural group in terms of idea fluency, originality, and harmfulness during the lying and hurting tasks, according to the results. During the playing trick task, the anger group outperformed the neutral group only in terms of idea fluency and originality. Even when control factors were taken into account as covariates, these results remained consistent. Furthermore, emotional arousal only mediated the effects of anger on idea fluency and originality of the "hurting" malevolent creativity task; implicit aggression mediated the effects of anger on idea fluency, originality, and harmfulness of all three forms of malevolent creative performance. Perchtold-Stefan et al. (2020a) have noted in their results that individuals who initially expressed higher levels of anger were also able to demonstrate measurable higher levels of malicious creative ideas. Anger is known as an approach-type motivating factor, and there is evidence through previous research that confirms a positive relationship between approach-type motivation and malevolent creative behaviour. This study supports the role of anger in producing malevolent creative behaviour that defies social norms (Perchtold-Stefan et al., 2021, 2020; Friedman & Förster, 2002).

Another recent finding showed that, in contrast to school bullying

victimisation, cyberbullying victimisation significantly predicted malevolent creativity in the sample of rural adolescents. In the longitudinal models, the relationship between malevolent creativity and cyberbullying victimization was mediated by hostile attribution (Tong et. al., 2024). One study (Nguyen et al., 2022) examined whether attitudes within the community and overt threats affected the generation of malevolently creative ideas. The study began with the premise that malevolent creativity is a type of parochial altruism. The results indicate that ingroup affinity is positively correlated with malevolent creativity in two situations: when individuals have negative attitudes toward the outgroup from the beginning or when outgroup members pose a direct threat to the ingroup. This implies that individuals with strong ingroup affinities may manifest malevolently inventive thought processes via indirect (attitudes) or direct (overt threats) channels. Put simply, when provided with enough motivation to act against an outgroup, people who cherish their ingroups can be inspired to create new, malevolent ideas. On the other hand, the consequences of overt threats and outgroup attitudes were mutually dependent. Overt threats and hostile outgroup attitudes have similar effects, strengthening the positive relationship between malevolent creativity and ingroup affinity when one variable is low or nonexistent (Nguyen et al., 2022).

Scholars have studied MC in depth, looking into a variety of factors that may be connected to it. Research has explored the neural underpinnings of malevolent creativity, exploring the potential roles of brain structures and activity (Gao et al., 2023; Perchtold-Stefan et. al., 2023b; Qiao et. al., 2023; Perchtold-Stefan et. al., 2023a). Zhe and Chang (2016) have claimed about the MC research that because the test can be completed in a harmless state, researchers cannot guarantee that the subject's malevolence is motivated. They suggest that implicit measurement should be considered a crucial aspect of test design going forward because, second, laboratory testing may make participants reluctant to disclose their genuine opinions. In addition, the experience with current creativity studies should serve as a guide for the advancement of empirical studies on malevolent creativity. In the neuronal study of MC, there were differences in the brain regions according to gender, as in women was observed a more accentuated executive control, and malevolent

creativity in them had a stronger association with potentially taxing episodic and semantic memory retrieval (Perchtold-Stefan et al., 2023).

Recent years have seen a sharp increase in research indicating a strong interest in examining the connections between the DT and malevolent creativity (Gao et. al., 2021; Bedu-Addo et. al., 2023). Through investigating the complex relationships between malevolent creativity and the characteristics of the characteristics of the Dark Triad, scientists have uncovered important information about the fundamental processes that underlie people's propensity for aggression and antisocial behavior. The increased emphasis on comprehending the relationship between creativity and malevolence has made room for new lines of investigation and approaches to these intricate problems in the fields of criminology and psychology. By investigating malevolent creativity and the DT, researchers hope to gain more insight into the fundamental reasons behind people's harmful or unethical actions. Acquiring this knowledge is necessary in order to develop preventative and remedial strategies for the negative consequences of this type of behavior. The behavioral tendencies of male characters (MC) were positively correlated with traits associated with the Dark Triad, aggression, and general creative tendencies, according to a study by Gao et al. (2021). The objective of the study was to comprehend the underlying mechanisms that link these characteristics to malevolent creativity. Moreover, there was a stronger correlation between the MC behavioural tendencies and the Dark Triad than there was between the latter and the general creative behavioural tendencies. The outcomes additionally demonstrated that MC behavioural tendencies were associated with the Dark Triad through both general creative behavioural tendencies and aggressive havior. After adjusting for age and gender, only the behavioural tendencies of the MCs positively predicted MCT originality in terms of MC performance. The linkage between MCT originality and the Dark Triad was found to be significantly mediated by MC behavioural tendencies, according to mediation analyses. However, the mediation effect of MC behavioural tendencies was only significant at low-to-medium levels of moral identity. The relationship between malevolent creativity and childhood neglect was found to be mediated by the presence of the core DT, indicating that people who exhibit traits of the Dark Triad in addition to high levels of malevolent creativity may also have a higher

likelihood of experiencing childhood neglect. This research emphasises how crucial it is to take into account the interactions among personality traits, creativity, and early experiences in order to comprehend how maladaptive behaviours and psychopathology develop (Jia et al., 2020). Finally, males were more affected by childhood neglect than females were by the Dark Triad, which indicates the influence of neglect on malevolent creativity. Malevolent creativity was found to be more significantly positively predicted by dark personality traits (machivellianism, psychopathy), but not by narcissism or moral foundations (Kapoor & Kaufman, 2021). The reason for this could be that the Malevolent Creativity Behavior Scale's (MCBS) behavioral interpretation of malevolent creativity was more easily correlated with the dark personality scales. Geng et al. (2024) have conducted two studies, and their results showed that early life adversity positively predicted malevolent creative behavior, and belief in a just world indirectly predicted malevolent creativity. Additionally, the effect that has been presented by the DT traits on the early-life adversity of the belief in a just world and malevolent creative behaviour was both lessened and increased. The second study by the same authors supported the first and showed how the possibility of malevolent creativity, including fluency, originality, and malevolence, increased when one's belief in a just world was threatened. In conclusion, Beliefs in a Just World has a positive effect on the link which exists in early life adversity and malevolent creativity, and they also show that gender (men) and the Dark Triad have an impact on how malevolent creativity manifests itself. Malevolent creativity has been linked to childhood neglect (Jia et al., 2020), and personality traits (Big Five) and neglectful parenting have been shown to positively predict malevolent creativity (Bedu-Addo et al., 2023). Also, malevolent creativity was associated with Dark Tetrad (Dow, 2023) or to benefit financially at the expense of another (Yang & Li, 2024). A positive association was established between childhood trauma and MC (Li et al, 2022), implying that persons who experienced more trauma during their early years are more likely to display malevolent creative behaviours in adulthood. This association emphasises the complexities of the relationship between an individual's home environment and the development of creativity, demonstrating how negative experiences can alter creative expressions in potentially damaging ways. The data also imply that this association is not solely direct; hostility

serves as a major partial mediator between childhood trauma and malevolent creativity. The findings show that higher levels of aggressiveness are connected with more expressions of MC. This suggests that aggressive people may channel their emotional experiences, which stem from early trauma, into detrimental or destructive creative activities. The nuances of these interactions suggest that violence may be used as a coping technique or in response to unresolved trauma, pushing people towards artistic endeavours that mirror their inner turmoil and frustrations. Thus, the interaction of childhood experiences, aggressiveness, and creativity suggests a possible pathway for early trauma to lead to the development of malevolent creative behaviours (Li et al., 2022).

Studies on how various emotional states and experiences may be connected to or motivate malevolent creative acts have focused on emotions as a further area of interest (Nguyen et al., 2022; Fu, Zhang, 2023; Fu, Zhang, 2022). Furthermore, the influence of social distancing on malevolent creativity has been investigated, providing insight into the ways in which emotions of loneliness or rejection could influence the emergence of malevolent creative concepts and behaviors (Zong, Dong, 2023). Scholars have also investigated the relationship between malevolent creativity and anger, exploring how hostile and angry emotions can fuel or affect malevolent creative behaviour and thought (Cheng et al., 2021). Researchers hope to acquire a thorough grasp of this intricate and frequently contentious facet of human thought and behavior by investigating these various components and how they interact with malevolent creativity.

Compared to those in the avoidance motivation condition, those in the approach motivation condition displayed greater MC fluency and originality (Hao et al., 2020). Malevolent thinkers often break social norms, but they often underestimate the repercussions or even the negative effects that may follow from their transgression. When comparing the approach condition to the avoidance motivation condition, MC fluency and originality were higher.

We found only one study examining the connection between malevolent creativity and (creative) self-efficacy in a recent thesis (Wang, 2018), where malevolent creativity was examined in a cross-cultural sample of students from China and the United States. Malevolent creativity was found to be significantly

predicted by creative self-efficacy in both groups. However, benevolent creativity only predicted malevolent creativity for participants who were US citizens, suggesting that malevolent creativity emerged as a more distinct construct in China as opposed to the US.

While researchers are interested in malevolent creativity, to our knowledge, only one study (Szabó et al., 2022) has been conducted in order to find out if there is a predictive effect of self-esteem on malevolent creativity behaviour in daily life. Their findings suggest that although being original and fluent may be required to produce malevolent creative ideas, self-esteem has no predictive relationship with malevolent creativity. In contrast, self-esteem was linked to higher levels of fluency in creativity, but according to these findings, originality had no relationship with malevolent creative ideation on a task that evaluated divergent thinking. Studies have indicated that these people might also be creative in their malevolent deeds, employing guile and strategic planning to accomplish their goals. It is crucial to understand that, even though creativity can be a good quality, people with negative personality traits can still utilize it for bad (Dow, 2023).

Japp (2023) found no gender differences in overall malevolent creativity, which was in contrast to previous research (Lee & Dow, 2011). This could be because he also proposed that the gender differences could be explained by the fact that malevolent creativity's originality is not measured.

Multicultural context (Yang & Li, 2024), in the normal population (Pechtold- Stefan et al., 2020, 2021), or offenders and officers along (Bochkova, 2023) or youth, traits like agreeableness and consciousness linked to deviant behaviour are among the negative predictors of malevolent creativity (Meshkova et al., 2020).

Higher levels of negative childhood experiences were linked to malevolent creativity in a sample of young adults, but this relationship vanished when psychosocial control variables (social support, empathy, and coping) were incorporated into the statistical model (Ceballos & Watt, 2023). Malevolent creativity had a negative correlation with empathy and social support but a positive correlation with coping.

Perceived leader authority influenced employee MC via organisational

conspiracy theories. Employee views of leader authority framed as duty were adversely connected to these conspiracy ideas, but perceptions of leader power framed as opportunity were positively related to them. Employees who had greater degrees of organisational conspiracy ideas reported more malevolent inventiveness. The results of the malevolent creativity task confirmed these findings: perceived leader power framed as responsibility was negatively related to the malevolence of the ideas generated by participants, whereas perceived leader power as opportunity was positively associated with the malevolence of their generated ideas, influenced by levels of organisational conspiracy beliefs. However, organisational conspiracy ideas did not function as a predictor for the uniqueness of the personnel ideas (Fousiani et.al., 2025).

As research on dark creativity has expanded, Zhou et.al. (2023) performed a comprehensive meta-analysis of the topic. Their research provides a summary of publishing distribution, which shows that the United States and China have the biggest volume. It also highlights hot subjects like the "dark side of creativity," "innovation," and "creativity." The principal themes that emerged from this extensive investigation were classified into four categories: conflict, cognition, culture, and anxiety.

1.1.2. Creativity and intelligence

As creativity is a well-researched topic with many open concerns regarding its definition and structure, we must examine the link that is developing between creativity and intelligence. Intelligence may be another topic that has been examined for decades without a consensus on its definition and structure. However, several studies attempted to determine the direction or intensity of the linkages rather than the two ideas themselves. Because there is no one identified in the present, unambiguous definition of creativity and intelligence, numerous theories have attempted to explain from decades the link between the two.

Guilford (1967) was one of the first to hold onto that higher levels of intelligence were required for greater levels of creativity, but he also believed that it was not a sufficient prerequisite. According to studies, the threshold

hypothesis for high levels of creativity is a score of 120 in intellect. The theory proposes that creativity is positively associated to intellect up to a certain degree (the threshold), but not beyond it. Once a certain level of intelligence is attained, increased intelligence does not always lead to greater creativity. However, the bulk of studies focused solely on creative potential, with little or no study committed to investigating creative performance. According to research, people with lesser intellect may have difficulty coming up with innovative ideas because they lack the cognitive resources required for creative thinking. Sligh et.al. (2005) investigated fluid and crystallised intelligence in connection to creativity, however their findings were unstable, as only crystallised intelligence showed a low association, while fluid intelligence indicated an opposite relationship. Miroshnik and Shcherbakova (2019) discovered no link between the fluency of divergent thinking and fluid intelligence in the "be-creative" condition, according to earlier research (Nusbaum et.al., 2014). We should also emphasise that not all research have obtained conclusive results to support the threshold theory (Preckel et.al., 2005; Kim, 2005-metaanalysis). Jauk et.al. (2013) discovered a link between creative potential and intelligence, with intelligence levels acting as a moderator. Another effect on this threshold connection was proven by passing the instrument through and measuring the creative capacity, which supported the threshold concepts. Their research indicated that by splitting different types of creative potential into the following IQ scores: ideational fluency received 86.09 points; ideational originality of creative potential had a threshold of 104.00; and, finally, the average originality of all ideas was evaluated, resulting in an intelligence score of 119.60. Other research have developed to determine the relationship between intelligence and creativity by investigating the neurocognitive system's reactions. One strategy is to use computational network control theory (NCT) to structural brain imaging data obtained by diffusion tensor imaging in a large sample of individuals (Kenett et al., 2018).

Other studies have linked the generation process in creativity to the Default Mode Network (DMN) (Runco & Yoruk, 2014), concluding in a paper that divergent thinking involves not only the right hemisphere, but also the left, after synthesising the existing evidence of increased and decreased neuronal activation. Kennett et al. (2018) discovered that the brain area with the best

relationships between modal controllability and creativity scores was the right dorsolateral prefrontal cortex, especially the right Inferior Frontal Junction (IFJ). This region is thought to play an important role in higher cognitive tasks like as decision-making, problem-solving, and integrating information from several sources. The findings show that the IFJ may be important for promoting creative thinking by allowing people to switch between different cognitive modes. Sebastian et al. (2016) discovered that the right IFJ is connected with the recognition of salient stimuli. This adaptability may improve one's ability to produce new ideas and solutions, emphasising the role of this brain area in the interaction between cognitive control and creative processes. Overall, the study emphasises the complex link between neural mechanisms and creative talents, indicating how distinct brain regions contribute to our ability to think creatively in a variety of settings.

According to current intelligence theories, creativity is an important subcomponent that leads to a more comprehensive understanding of cognitive functioning. The Carroll-Horn-Cattell intelligence model (CHC; Carroll, 1993) relies heavily on long-term storage and retrieval ability (commonly abbreviated as Glr). This ability is not limited to just storing and consolidating new knowledge in long-term memory; it also allows for easy retrieval of that information when needed. This retrieval process is critical for creative knowledge application because it allows individuals to draw on their prior experiences and learnt information to produce new ideas and solutions.

As a result, Glr supports both the fundamental components of memory and the dynamic processes required in creative thinking, emphasising the interdependence of different cognitive domains within the larger landscape of intelligence. This model emphasises the complexity of cognitive capacities and their practical consequences for learning and problem-solving throughout life by seeing creativity as an inherent aspect of intelligence, as well as the relevance of long-term storage and retrieval.

The Necessary Condition Analysis is a method that can clarify the relationship between intelligence and creativity, adding a new perspective to the topic. Karwawski et al. (2016) discovered a weak relationship between creativity - originality and intelligence, with the strongest correlation identified for fluency.

In addition, the influence of Necessary Condition Analysis was highest when it came to creative activity and achievement.

In their most recent study on the relationship between creativity and intelligence, Dechaume et al. (2024) discovered that overall IQ does not significantly predict variations in the rate of increase in creative potential across any of the assessed subdimensions when Segmented Regression Analysis is used. The absence of a substantial breakpoint implies a more progressive or linear relationship, casting doubt on the requirement for a specific IQ threshold for creativity to emerge, therefore undermining the threshold theory. In the framework of Necessary Condition Analysis, the findings show that a minimum level of Total IQ is required for the full manifestation of various creative talents, notably convergent integrative thinking.

This significant study supports the idea that IQ may play a more important role in some forms of creativity that need an organised or analytical approach than in more divergent or spontaneous creative processes. Convergent integrative thinking is the capacity to synthesise disparate bits of knowledge into coherent and novel solutions, which frequently requires a strong foundation in logical reasoning and critical thinking skills—qualities generally linked with higher IQ levels. As a result, while overall IQ may not be a significant predictor of creative capacity in general, it appears to be more relevant for creative activities that demand a methodical technique and the ability to apply learnt information effectively.

Furthermore, this emphasises a key distinction within the multiple concept of creativity: various creative talents may necessitate different cognitive resources. For example, convergent thinking thrives on methodical inquiry and analysis, but divergent thinking is more aligned with open-ended ideation and inventive processes that do not rely significantly on traditional intelligence measurements.

As previously stated, there is insufficient data to clearly prove a sinusoidal correlation among intelligence and creativity, with evidence supporting and disputing the existence of this connection. While intelligence may play a part in the creative process, it is obvious that other characteristics, such as personality traits and cognitive aspects, have a substantial impact on

this dynamic interaction. As a result, we may conclude that while intelligence is a necessary prerequisite for creativity, it is insufficient on its own; the creative process requires a plethora of other characteristics that contribute to its expression. Furthermore, our findings show that the effect of Necessary Condition Analysis was strongest in terms of creative activity and achievement. This shows that, while intelligence serves as a basis for creative potential, the interaction of many situations and factors ultimately defines creative outputs. Although our findings are considered pioneering in the field of forensics, we have severe limitations in understanding the link between intelligence and the genesis of malevolent creativity.

The limited techniques used in the forensic examination of offenders provide little to no information concerning the relationship between cognitive capacity and damaging creative manifestations. Currently, there is a paucity of research regarding an individual's psychological, cognitive, and emotional traits at important stages in their journey—whether during detention, midway through their term, or before release. A recent study in the Romanian prison system by Norway Grants, have summarized important data about different factors implicated in recidivism, taking into account also the level of scholarship, indicating that at 31,12.2022 by the total number of 21.878 inmates incarcerated in the Romanian prison had the result below. Inmates without studies (recidivist - 13.3%, control -9.4%); elementary school (recivists - 21.9%, controls - 14.2%); secondary school (recidivist - 31.7%, controls - 28.2%); vocational studies or 10 classes (recidivists - 18%, controls - 22.3%); high school (recidivists- 13 %, controls - 20.1%); and higher education (recidivist - 2.2%, controls — 5.8%). These results indicates that the highest levels of education are between those who have only secondary school, which means that they have a low to medium level of education, with major implication of the levels of reoffendering. Also, the same situation can be observed at the control group, where the highest percentage of school grade is secondary school.

While we may estimate their intellectual talents to some extent from their educational histories, this technique is far from complete. It does not give detailed data on their real intellectual capabilities, creating a vacuum in our understanding of how intelligence interacts with creativity, especially in

situations involving negative or detrimental expressions of creativity.

This emphasises the importance of doing more nuanced study on the complex links between intellect, personality, and creativity, particularly in forensic contexts, in order to better understand the psychological profiles of criminals and the elements that drive their creative expression.

1.2. Dark Triad

Breaking from social norms is a common trait among the composite personality trait axis named the Dark Triad (DT), which includes sublinical Machiavellianism, narcissism, and psychopathy. At its core lies callous manipulation (McHoskey et.al., 1998). Each characteristic has a specific meaning, and grandiosity, selfishness, and self-orientation are three characteristics that best describe narcissism (Raskin & Hall, 1979). Machiavellianism represents high levels of self-interest, the tendency to take advantage of others, exhibit manipulative behaviour, and the absence of an ethical attitude or behaviour (Christie & Geis, 1970). The characteristics of psychopathy includes explosive conduct, antisocial behavior, carelessness about others feelings, and absence or remorse (Hare, 1983). Paulhus and Williams (2002) were among the first to identify the constellation of the Dark Triad, noting shared characteristics. Though these characteristics are distinct from one another, they also share certain characteristics, such as the desire for dominance or superiority, aggressiveness, and emotional detachment. Numerous studies have provided evidence to support the idea that these characteristics, though different, show notable overlap, particularly in the cases of psychopathy and Machiavellianism. However, narcissism was the least prevalent trait and was linked to the other characteristics (Trahair et al., 2020).

Combining the data from various sources, at least five credible theories—such as three personality traits—have been put forth to explain the Dark Triad's shared variance (Book et al., 2016). It has also been established that these theories can be utilized to predict the DT traits. To begin with, Paulhus and Williams (2002) were the first who have described these three traits as being best described by low levels of the Big Five Agreeableness personality factor.

Second, callousness, which is a characteristic shared by all three dark personality traits, should be viewed as the primary idea through which evilness can be explained (Baron-Cohen, 2012). Third, Jonason and Webster (2010) proposed that the Dark Triad's common trait is a swift and cunning life history strategy. Fourth, low honesty-humility, a HEXACO personality factor that is not included in the Big Five, may provide the most intricate explanation of the similarities between DT (Lee & Ashton, 2008). Lastly, and perhaps most recently, Jones and Figueredo (2013) provide credence to a theory that contends that the best-fitting characteristics for characterising dark personality traits are callousness and interpersonal manipulation—factor 1 in Hare's (2003) theory.

Heritability in the case of the callous core (Douglas et.al., 2012; Jones & Paulhus, 2011) of the Dark Triad traits has been demonstrated by genetic studies (Vernon et.al., 2008; Veselka et.al., 2011; Schermer & Jones, 2020), validating a genetic component in monozygotic and dizygotic twins. By highlighting the interaction between genetic predispositions and environmental factors, these findings add to the ongoing discussion about the origins of the traits. Correlates between narcissism and environmental factors were found to be primarily responsible when mental toughness and Dark Triad were compared; correlations supporting Machiavellianism have been shown for both nature and nurture factors; however, for psychopathy, these correlations were only maintained for genetically based factors (Onley et al., 2013). Also, DT was studied in relation to alexithymia (Cairncross et al., 2013; Jonason & Krause, 2013). Close to the environmental influences, it was demonstrated that associations have been drawn between childhood aggression and intimate partner violence, underscoring the behavioural implications of these traits (Kerig & Stellwagen, 2009; Carton & Egan, 2016). Scholars have also looked at the Dark Triad characteristics from an evolutionary standpoint, seeing them as adaptive characteristics that support an exploitative and self-serving way of life. This evolutionary framework posits that these traits may confer advantages in certain contexts, shaping individuals' strategies for navigating social interactions and achieving personal objectives (Jonason & Webster, 2010; Baughman et.al., 2014). The question of whether the dark triad traits are nurtured or inherited is controversial because it appears that both psychopathy and narcissism are

influenced by their surroundings (Campbell et al., 2009; Feng & Xu, 2013).

Over the years, researchers have explored the interconnectedness of Machiavellianism, narcissism, and the psychopathy component of the DT. Machiavellianism and narcissism are considered to have a moderate association, but psychopathy shown to be more likely associated with narcissism and Machiavellianism (O'Boyle et al., 2014). Comparing the three DT traits, meta- analytical results by Vize et al. (2018) showed differences between the three, with less overlap noted when adjusting for shared variance between the two. Since the concept of the Dark Triad first emerged, extensive research has been conducted. A bibliometric analysis was also published in the years (Dinić & Jevremov, 2019; Boonroungrut & Oo, 2017), which demonstrated that significant summaries of the most significant aspects of the field's research—such as key authors, concepts examined, relationships with other personality models, and evolutionary perspectives—had been revealed. Further studies have supported the relationships among narcissism, Machiavellianism, and psychopathy, emphasising a common lack of empathy within the Dark Triad. Black et.al. (2013) noted a collective failure to recognise emotional vulnerability in others and a tendency to perceive others as weak, underscoring the pervasive nature of this empathy deficit across these three traits. In the debate created by the Dark Triad, there is some criticism that may particularly be the combination of Machiavellianism and psychopathy traits, including narcissism, which is a standing factor in both the measurement of Short Dark Triad (SD3) and Dirty Dozen (DD) (Persson et.al., 2017). Gordon and Platek (2009) didn't find a relationship between the tree personality traits; no correlation was observed between narcissism, psychopathy, and Machiavellianism.

Another viewpoint states that DT only assesses Factor 1 of psychopathy (Glenn & Sellbom, 2015) and it measures SD3 and DD, which only assess the callous effect and ignore the secondary psychopathy aspect (Muris et al., 2017). Bertl (2017) is also one of those who found evidence about the questionability of the construct validity of the Dark Triad. Another study found results loaded on the same factor in both exploratory and confirmatory factor analysis, suggesting a certain amount of redundancy between these constructs (DeLisi et.al., 2021).

Studies have shown a significant difference according to gender in the DT, which has generated interest regarding gender differences in these traits. This gender gap in Dark Triad traits underscores potential variations in how these traits manifest and are expressed within different populations (Jonason et.al., 2015). Results may support that tendency that men score higher in three dark personality traits. Also, gender differences have a significant negative influence on Machiavellianism when counted as unplanned impulsivity in men (Szabó & Jones, 2019). While proactive aggression in men was strongly associated with psychopathy, gender had a significant impact on Machiavellianism (females). Psychopathy and Machiavellianism had a major impact on reactive aggression in both males and females (Dinić & Wertag, 2018). Gender differences were also identified in eating behaviour (Mertens et al., 2021), love styles (Jonason & Kavanagh, 2010), cross- cultural context (Aluja et al., 2022), sociosexual behaviour and morality (Moore et al., 2020), and empathy (Jonason et al., 2013) in the HEXACO model (Wertag & Dinić, 2015).

According to popular belief about the "evil genius", there is no scientific evidence that general intelligence can moderate the ability of deception displayed by the DT. Therefore, this idea lacks scientific validity (Michels et. al., 2020). Neither does intelligence appear to be significantly associated with Dark Triad traits (O'Boyle et.al., 2013; Rauthmann, 2012; Zajenkowski & Czarna, 2015). This casts doubt on the idea that a very smart person could have the evil traits shared by the Dark Triad. Rather, these characteristics have been associated with negative consequences for behaviour at work, especially when it comes to encouraging ineffective behaviours that can upset productivity and organisational dynamics (O'Boyle et.al., 2012). Human behavior and decision-making are significantly influenced by intelligence and the dark triad traits. By examining these constructs, by the evidences we can gain a greater knowledge about why people behave in particular ways and how they interact with others. There has been prior research on intelligence (O'Boyle et al., 2013; Hick et al., 2015). Nonetheless, later research revealed that fluid intelligence positively correlated with Machiavellianism, suggesting that higher intelligence levels are required for strategic planning (Kowalski et. al., 2018; Bereckei, 2018). A

recently conducted meta-analysis has shown that psychopathy has a negative relationship with intelligence, and narcissism and Machiavellianism are not associated at all (Michels, 2022).

Emotional intelligence, on the other hand, shows a nuanced relationship with the Dark Triad traits (Petrides et. al., 2011; Jauk et. al., 2016; Szabó & Bereczkei, 2015; Nagler et. al., 2014; Schade et. al., 2021; Kaumbur et. al., 2017; Barberis et. al., 2023). Those individuals, who may have narcissistic traits, could encounter problems in their interpersonal connections, due to their lack empathy and emotional awareness, and they may also prioritise their own needs and desires over those of others (Mayer et al., 2008). It is evident from the divergence of emotional intelligence and narcissism that personality traits are complicated and have an effect on interpersonal dynamics and social interactions. Additional investigation into the connection between narcissism and emotional intelligence may yield insightful information about the fundamental processes underlying these behaviours as well as strategies for fostering emotional health and wholesome social relationships. Conversely, it has been demonstrated that emotional intelligence and Machiavellianism have a negative correlation (Ali et al., 2011). Higher emotional intelligence can help people identify and control their own emotions as well as comprehend and empathise with those of others. This ability to do so may serve as a shield against the cold-blooded manipulation and psychopathy that are linked to Machiavellianism and psychopathy. It is possible that this will affect how they interact with others and make decisions because people with high levels of psychopathy and Machiavellianism may find it difficult to understand and regulate their emotions (Miao et al., 2018). While there is currently no concrete evidence linking emotional intelligence and DT, there is a possibility that emotional intelligence plays a role in enabling individuals with these traits to manipulate and deceive others. Regarding emotional intelligence's place in the Dark Triad traits, this lack of evidence raises concerns. Since these traits are more strongly associated with manipulative and exploitative behaviours than with the recognision and the ability to emotion regulation, some researchers contend that emotional intelligence may not even be related to these haracteristics.

Meanwhile, it is critical to acknowledge the complexity of human nature and the variety of circumstances that can lead to the manifestation of negative and deceptive characteristics. Similar to how intelligence and DT are related, we can conclude that emotional intelligence aligns with a construct that has no evidence of a relationship with DT. By examining these findings, it can be helpful to understand human behavior and social dynamics through certain factors that have a particular impact on reporting against individuals or situations—or perhaps none at all. Since these characteristics have drawn a lot of attention and led to an expansion of research with other constructs over the past 20 years, studies in various life contexts have been carried out, e.g., workplace (Hyde, 2020; Grover & Furnham, 2021); mating context (Apostolou et al., 2019); or prison (Michaeli Manee et al., 2020; Zaimova- Tsaneva et al., 2023). Also, several meta-analyses (Michels & Schulze, 2021; Miao et al., 2018) and systematic reviews (Walker et al., 2021) have been released to summarise the existing data from DT.

Even though the characteristics of the Dark Triad are frequently linked to antisocial behaviour, research has explored the complex relationship between these characteristics and wrongdoing or immoral ehavior. Although narcissism, psychopathy, and Machiavellianism are all associated with antisocial tendencies, people who possess these traits may function in a framework where they view breaking from social norms as acceptable or helpful for achieving their objectives. Research has shown that antisocial behaviours can occur in academic settings (Ternes et al., 2019) as well as in adolescents' dark traits (Sijtsema et al., 2019; Pechorro et al., 2022). The results of Azizli et al. (2016) show that antisocial tendencies, which are evident in the DT, are positively correlated with high-stakes deception and misconduct and match other comparable behaviors. In an academic environment, misconduct was related to Dark Triad traits (Curtis et al., 2022; Curtis, 2023) and ethical misconduct too (Van Scotter & De Deá Róglio, 2018). Individuals with DT traits frequently have a propensity to engage in behavior that is deemed illegal or goes against social norms. This is the outcome of their investigation of these characteristics over several years of research.

All things considered, a higher number of findings revealed the presence

of violent behaviour manifestations in the DT's components (Pailing et.al., 2014; Yendell et al., 2022; Brugues & Caparros, 2021b). Research has revealed behavioral difficulties such among the DT such as low self-control (Jonason & Tost, 2010; Flexon et al., 2016; Wright et al., 2016), and the existence of the predictive power of aggression (Jonason & Webster, 2010) and the link of relational aggression (Erzi, 2020) or violence (Yendell et. al., 2022; Brugues & Caparos, 2021; Westhead et. al., 2015 and Pailing et. al., 2014;) indicating the behaviour's antisocial nature. Some other studies (Alsheikh Ali, 2020; Palma et. al., 2021; Perry & Brody, 2011; Amos et. al., 2024; Edwards et. al., 2017; Blinkhorn, 2023; Karandikar & Jones, 2023; Fatima, 2016; Hayes et. al., 2021; Khan et. al., 2020; Merair & Rashid, 2020; and Stiff & Reeves, 2023) have all shown a correlation between delinquent behaviours, criminal activities, and victimisation experiences.It is crucial to address one specific form of violence that is widespread worldwide and disproportionately affects women when talking about the connection between dark triad traits and violence: domestic violence (Carton & Egan, 2017; Navas, 2021b; Plouffe et al., 2022; Kanemasa et al., 2022; Plouffe et al., 2020; Kiire, 2017; Pineda et. al., 2022; Kanemasa et al., 2023; Delicato, 2021; Mills-Koonce et. al., 2023 and Ferreiros & Clemente, 2023). Studies (Lyons et. al., 2022; Pavlović et. al., 2019; Navas et. al., 2021b; Brewer et. al., 2019; Zeigler-Hill, 2016; Costa et. al., 2023; Lyons et. al., 2020; and Figueredo et. al., 2015) have also shown an association between sexual aggression and DT traits. Studies about the abusive behaviours that fall under the category of intimate partner violence, highlighting that people who display these characteristics are more likely to act abusively and harmfully in close relationships. Together, these findings advance our knowledge of the intricate connections that exist between dark triad characteristics and a range of negative and illegal behavioural patterns in people. Results on the prevalence of behavior motivated by retaliation have been acquired, which has an impact on the illegal and unfair assessments of DT, focusing on psychopathy and Machiavellianism (Giammarco & Vernon, 2014). It is more difficult to forecast short-, medium-, and long-term aspects of the future when dark triad features concentrate on here and now (Birkás & Csathó, 2015). What we also know about is that the dark triad is associated with crime, such as sexual assault

(Jonason et.al.,2017), aggression (Liu et al., 2019), and is a relevant predictor of both offendering and victimisation (Flexon et al., 2016). Offences can range from thieves (Lyons & Jonason, 2015), high-stakes deception (Azizli et al., 2016), terror and fraud (Perry & Brody, 2011), malevolent forces (Wright et al., 2016), organised crime (Madzharov & Andonova-Tsvetanova, 2020), untill perpetrators of crime (Blinkhorn, 2023). According to a study by Madzharov and Andonova-Tsvetanova (2020), people convicted of organised crime confront a number of difficulties while behind bars, such as forced cohabitation, isolation, diminished adaptability, and intense suppression of negative personality traits like narcissism and psychopathy. In actuality, the authors believe that these narcissistic and psychopathic individuals are not really changing. They also permit more specialised tactics, such as manipulation, which keeps them in a covert mode. During the sentence execution period, they will also attempt to continue their organised crime activity, either inside the prison or in the future after they are released, as well as increase it by implementing certain conspiratorial plans. Regarding the individuals with dark triad triats and the number of their convictions, no significant correlation was found (Madzharov & Andonova-Tsvetanova, 2020).

In addition to malevolence and the aggressive and impulsive aspects mentioned, the DT has also been linked to amusement—a quality that narcissists and psychopaths believe they possess—and the joy or satisfaction felt when someone else makes a mistake (Jonason et.al., 2015). The dark triad is connected with schadenfreude (Erzi, 2020; James et al., 2014), which might be a symptom of a hidden violence mode that is socially acceptable and can be demonstrated openly without punishment.

Studies indicate that people who exhibit DT characteristics, more precisely Machiavellianism, secondary psychopathy, and exploitative narcissism—are exposed to dangerous situations because they tend to be unaware of their surroundings and prefer to engage in nighttime activities (Jonason et.al., 2013).

When it comes to the family environment, given the dark characteristics of these personality traits, it is not surprising that the effects between the relationship of aggression and family emotional warmth were mediated only by

Machiavellianism and psychopathy, with narcissism having no effect (Liu et al., 2019). Dark triad traits were controlled if they were significant predictors of substance abuse, but findings indicate that they do not have a revealing predictive effect when controlling for self-control factors, particularly low self-control (Flexon et.al., 2016).

In the ellucidation of neuronal bases of the Dark Triad, Gordon and Platek (2009) tried to identify faces and showed that Machiavellianism and psychopathy are correlated constructs, so the amygdala activation in the brain could be a synergetic response to these traits, indicating also untrustworthyness. When the scores were for narcissism, no relevant activity was found for the facial morphometric geometry.

When we take into consideration the malicious part of these personality traits, obviously we have to discuss deception, especially perceived deception production ability (Wissing & Reinhard, 2019), unethical behaviour (Moshagen et.al., 2018), lying, and other methods that they use to misleading the persons. Also, Machiavellians and narcissists are supposed to think their lies are credited by others (Baughman et.al., 2018), and narcissists frequently have the supposition thatheir lies are credited by others (Baughman et.al., 2018), and narcissists frequently have the supposition that they can efficiently detect deception by overestimating the proportion of beholding this ability (Elaad et al., 2020). Again, Mach's and narcissists in deception detection research were those who had high stakes in deception. There were significant differences in the context in which these Dark Triad traits use lying, because narcissists have not considered that lying would be a cognitively demanding behaviour in a coupling condition, but Machiavellians and psychopaths have used a greater cognitive effort to lie, both in mating and in an academic context (Forsyth et. al., 2021; Turi et. al., 2022).

1.2.1 Machiavellianism

The seminal work by Cristie and Geis (1970) marked the inception of Machiavellianism as a distinct personality trait, paying homage to the influential Renaissance figure Niccolò Machiavelli. Following his exile from Florence,

Machiavelli penned his renowned masterpiece, The Prince, offering a comprehensive guide to effective governance. Machiavellianism, therefore, embodies characteristics of cynicism, moral ambiguity, and a strategic mindset (Carré et.al., 2020). In 1970, Christie and Geis formally introduced the concept of Machiavellianism (MACH), characterizing the personality trait as being oriented by a tendency to exert influence over others and to utilize others for one's own benefit. They describe Machiavellians as being far more goal-oriented than person-oriented, meaning that they prioritise reaching their own objectives over forming real, meaningful connections with other people.

Machavellians are skilled at advancing their own goals, frequently at the expense of others, through deceit and manipulation. Their self-interest pushes them to use deceit and other strategic behaviours in order to control situations and get what they want. Machiavellians are distinguished from people who value empathy and interpersonal relationships in their interactions with others by their goal-oriented style. Evidence shows that because they are good at tactics, they can also anticipate actions incoming, like fraud, being conscious of possible risks and favourable circumstances (Carré et.al., 2020). This presence of strategic thinkers is negatively related to social information processing, social awareness, and social skills (Hart et.al., 2021). They revived indirect relationships on strategicality through credulousness through social awareness and by trusting a stranger through social information processing.

Additional characteristics of this trait includes emotional detachment, a lack of empathy, and a propensity to take advantage of others for one's own benefit (Wastell & Booth, 2003; Wilson et.al., 1996). Moreover, Machiavellianism is recognised for utilising manipulative strategies to influence individuals for self-benefit, often disregarding the well-being of others in the process (Wilson et.al., 1996). People who use Machiavellian interpersonal techniques and have a negative perception of humanity frequently came from unfavorable home environments as children, including dysfunctional families, loneliness, and inadequate parental care. Studies have indicated that children reared in dysfunctional households characterized by inconsistent parenting, a lack of emotional nurturing, or neglect frequently display manipulative and exploitative behaviors as a coping mechanism and

survival strategy. Moreover, alienation or rejection from peers or family can cause people to become detached and less empathetic towards other people, which feeds into their Machiavellian tendencies. These consequences stem from a deficiency in parental love and care, resulting in unmet emotional needs during infancy and early childhood. Furthermore, the use of punitive measures has been instrumental in fostering deceptive and exploitative interpersonal tactics. Individuals subjected to unforgiving punishments learn to harbour dysfunctional negative emotions and realise that only through deceptive behaviours can they achieve their objectives (Láng, 2015).

There has been a noticeable rise in the quantity of studies that have examined the application of traits like Machiavellianism in the workplace and other workplace- related areas. The findings show that there is no meaningful direct positive correlation between the subordinates' perceptions of abusive supervision and the supervisor's Machiavellianism. Nonetheless, it was discovered that the supervisor's competitive worldview mediated the relationship between the subordinates' perceptions of abusive supervision and the supervisor's Machiavellianism (Khan et al., 2022). In the realm of professional and career behaviour, individuals with Machiavellian tendencies demonstrate a proactive approach to asserting their dominance in specific settings, as noted by Cui and Zhang (2021). They also exhibit a strong drive to progress in their careers, as highlighted by Hogan and Shelton (1998). Machiavellians are inclined to showcase career productivity for personal gain, as outlined by Cui and Zhang (2021).

According to some research, there is no discernible link between creative achievements and creative aptitude in people who exhibit Machiavellian characteristics (Jonason et.al., 2015). When faced with tasks that require creative and unconventional thinking, people with strong Machiavellian traits often display behaviors that could have unfavorable outcomes (Jonason et al., 2017). Lebuda's et.al. (2021) meta-analysis suggests that Machiavellianism is more strongly linked to creativity in the fields of arts and sciences compared to everyday creative endeavors. While self-report measures show a robust correlation with Machiavellianism, this association diminishes when considering creative performance. This research sheds light on the positive relationship between Machiavellianism and

creative endeavours, accomplishments, and self-perception.

Machiavellianism was found to be good in the practical field (Jonason et al., 2015) and in the domain of arts and science (Lebuda et al., 2021). Dahmen-Wassenberg et al. (2016) discovered a subtle connection between Machiavellianism and performance in divergent thinking tasks, attributing this to the manipulative and emotionally detached characteristics associated with this personality trait.

Highly Machiavellian individuals, such as corrupted prisoners, exhibit enhanced abilities in recognising, understanding, and managing emotions, indicating a strong correlation between emotional intelligence and this personality trait. This might be explained by the cunning of Machiavellians, who use calculated measures to accomplish their goals (Kaumbur et al., 2017). They possess a greater degree of emotional intelligence and are adept at tactics and strategies; therefore, in order to act in a way that will help them achieve their goals, they must first assess social situations, investigate the circumstances of a situation, and scan the emotional statements of others (Davies & Stone, 2003; Zhao et.al., 2016; Furnham et.al., 2013). They cannot have genuine emotions in a social relationship because they are a fake person, even though it has been shown that these emotions are only surface- level and antisocial (Mayer et.al., 1990). Because Machiavellians are excellent tacticians, but they are also prone to acting in ways that stem from emotional decisions of retaliation, this characteristic also indicates that they lack empathy, as they are unaware of the need to thoroughly examine the feelings and motivations of others by placing themselves in their shoes (Giammarco & Vernon, 2014). In contrast to psychopaths, who typically act on impulse and fleeting temptations to assert dominance, Machs will not, however, commit specific violent acts because they are more deliberate and carefully consider their next course of action (Williams et al., 2010). Nonetheless, in the unlikely event that Machs experience ego depletion, it is rare that they will behave similarly to psychopaths (Paulhus & Jones, 2017).

According to some research (Amos et.al., 2024), those who adhere to Machiavellianism are the most fitting candidates to be included in the typology of white collar crimes. When examining incomes at Mach's, we find that psychological aggression and fWHR have a negative correlation when analysing

above-average income (Noser et.al., 2018). Machiavellians frequently use deception to be more popular and can also use all types of lies without any restriction, such as self- gain, white lies, or no reason lies (Forsyth et al., 2021). And they will not engage in gambling activities to lose others money if they do not have a greater profit (Fehr et.al., 1992); even more, they will not engage in behaviours by which they could be punished; instead, they are oriented to be rewarded (Jones, 2014). In a study that looked into financial crime, Machiavellianism's pathways were discovered, and these pathways have a positive and significant impact on financial crime through ethical orientation. Furthermore, financial crime is positively and significantly impacted by Machiavellianism through relativism (Movarekh et al., 2024). Machiavellianism and life satisfaction have an inversely correlated relationship, which implies that declines in Machiavellianism may be adaptive. This study found evidence of a linear decline that had already occurred in 18-year-olds over a two-year period. In this context, this could be seen as the result of Machiavellian maturation, which is seen as a distinct process that can manifest in a number of people who possess these kinds of personality traits, even though others perhaps will not (Wolff & Wetzel, 2023). People with high levels of the manipulative, misanthropic trait of Machiavellianism also use various forms of deception to further their goals. This combination of high verbal skills and high Machiavellianism gives people the capacity and drive to produce "bullshit" more frequently (Blötner, 2024).

Machiavellians were also prone to experiencing schadenfreude, and moral disengagement and relational aggression were significant mediators of this positive relationship. This is likely because these behaviours enable people to express their aggression in a way that conforms to social norms by taking pleasure in the other person's suffering (Erzi, 2020). According to Brugués Català and Caparros (2023), prisoners at Machīs often employ moral distancing techniques such as advantage comparison and dehumanisation to safeguard their self-image. Machiavellians are those who are less likely to express impulsivity or show aggression, being good tacticians, so there is no relevant relationship between the BIS/BAS system (Huang & Liang, 2015), but the place where it is exposed to risk are self-centred people (Merluşcă & Chiracu, 2018). In accordance with this, Mach`s do not encounter different types of

misbehaviour because they need to take care of their reputation, based on their charm, maintained with different manipulation strategies (Azizli et al., 2016) and “soft’’ kinds of tactics (Jonason et.al., 2012). Moreover, Machiavellianism showed a linkage associated with mood disorders, delusional illness, and disorders directly related to somatization in a group of prisoners (Brugués Català & Caparrós, 2023). When comparing this dimension to psychopathic personality, a less severe psychopathological pattern was seen.

Merlusca and Chiracu (2018) discovered that in a study comparing students and prisoners, those with high levels of Machiavellianism suffered from physical neglect as children, endured a lack of family support, and also demonstrated supportive absenteeism outside of the home. A positive relationship was also found between emotional abuse, history of substance use, or mental problems within the family, and these difficulties experienced during childhood in the family environment will cause a high Machiavellian to form a personality structure that is based on overcoming obstacles and creating a malleable person in the face of interpersonal relationships and interactions (Merlusca & Chiracu, 2018), and family affection is a negative association with Machiavellianism (Liu et al., 2021).

To investigate this relationship more thoroughly between DT and malevolent creativity with a larger sample size, more research is required. Jia et al. (2020) found that Machiavellianism affects the connection between malevolent creativity and neglect as children in their study. Low levels of divergent thinking and creativity, and consequently low levels of malevolent creativity, were associated with Machiavellianism, resulting in the conclusionin the conclusion that Machiavellianism would not be a reliable indicator of malicious creativity (Cayirdag, 2021). When the Dirty Dozen scale was examined, Machiavellianism was found to be related to harm- based creativity (Jonason et al., 2017). Machiavellianism was found to be only correlated with assessments of how harmful the provided responses were when examining the Short Dark Triad scales.

1.2.2. Narcissism

Narcissus is a well-known character who embodies the personality trait of narcissism. He derives his name from a Greek myth and is known for his excessive self-perception of his exceptional beauty. This leads him to feel superior to others, differentiate himself from others, and feel the need to gain approval for his unique qualities. According to theories, narcissism may be divided into groups based on characteristics of the narcissistic personality that include grandiosity on the one hand and vulnerability or sensitivity on the other.

Considering the overall state of narcissism theories, we will detail the origins and basis of narcissism, which could be helpful in understanding the mechanism that delays this personality disorder, which has a lifetime prevalence of 6.2% of the population (Mitra et.al., 2024). As previously noted, the Narcissus myth provides the foundation for narcissism hypothesis. His name comes from the Greek term Narke or Narcotic, which refers to a flower with a special ability to heal pain and suffering. Havelock Ellis utilised the myth of Narcissus to characterise the underlying state, which he felt to be both autoerotic and sexual, by absorbing sexual feeling in oneself (quoted by Campbell & Miller, 2011).

Freud (1914) was the first psychologist in the twentieth century to discuss the characteristics of narcissism, and he believes that narcissism is a disorder that can be defined as someone who is much more self-centred and self-oriented, with no interest in interactions or relationships with others. Then Kohut (1966) captures the foundations of narcissism, positing that the personality traits may be a result of the lack of a healthy or appropriate child-parent interaction, including the parents' frigid affectivity. This might be a clear indication of a weak self-perception developing during infancy.

The repercussions include a high state of emptyness, wisdom of power, inability to comprehend people, and attempts to discredit someone's abilities (Kohut & Wolf,
1978). Additional aspects were added to Kohut's theory, which is centered in the self, which is constructed by one’s emotions, perceptions, thoughts, attitudes about themselve and about the world that is around them. His self

theory is defined as a being a mental system which is built up by the individuals personal encounter or experience in the interactions of his developmental needs, considered as the self- object needs. These needs are essential in the developmental phase of on individual's healthy growth, and the format of the self, and being gratified or maybe not being, by the most important persons of the life circle is in the individual. Kernberg improved the idea and expanded on it from his own perspective, in which he has added identity, object relations, and the defense as a more complex understanding of the self.

The newest researches, such as one of Naghipoor et.al. (2022) evidentiates that the development of internet depencency is strongly related to factors, such as egocentricity, insecure attachment, on the opposite side of the association has been stand ego strenght, confirming that in men is greatly higher the correlation between object relation and internet addiction. Also, some schema has been found to be associated between four types of schemas and previous traumatic experience, supporting the object-relation model. The systematic review highlights that the Detached Protector, Vulnerable Child, Angry Child and Punitive Parent maladaptive coping modes are those that are correlated to childhood traumatic events (Lian & Mathialagan, 2024).

Pincus and Lukowitsky (2010) proposed a theory of pathological narcissism, which may be read as a continuum that encompasses both grandiose and vulnerable narcissism, as well as covert and overt expressions. Pathological narcissism is the outcome of dysfunction in three major areas of life: interpersonal relationships, emotional regulation, and self-regulating mechanisms.

The tradionally psychodynamic theory also is in line with this concept of the expression of narcissism in overtly or coverly. Mainly, psychodynamic theory sustain that theories that are given a more descriptive framework for understanding the complex processes that underpin narcissistic personality characteristics and how they impact interpersonal interactions.

Narcissism theories in the psychodynamic area are interested in motivational systems (Lichtenberg et.al., 2011), affective systems (Panksepp, 1998), self-conscious emotions (Schalkwijk, 2015), affect dysregulation and self (Schore, 2003), and trauma (Schore, 2009). Also, the psychodynamic mask theory considers narcissism to have an unstable self-perception

(Kuchynka & Bosson, 2018). The operationalisation of this sort of narcissism may be examined through numerous modes of self-esteem, including the variations between implicit and explicit self- esteem, contingent self-esteem, or even the link between self-esteem and events such as failure and success (Gregg, & Sedikides, 2010; Zeigler-Hill et.al., 2008; Hart et.al., 2019).

Also, literature has identified two main phenotypes of narcissism, the grandiose and the vulnerable, being important contributions to the concept of grandiose narcissism made Kohut (1972), Kernberg (1975), which is one of the type of narcissism, can be defined as the paradoxical stage of the self, when someone is particularly insidious about himself, attributing extraordinary characteristics and, in contrast with that perception, in reality, they have no capacity to function in diverse domains of life (performance, interpersonal, etc.) as great or as high as he overvalues oneself.

New influences may characterise narcissism in both an individual and communal context (De Zavala et al., 2009; Fatfouta et al., 2021). That same narcissistic defence mechanism may be used to collective areas. Overall, we may know that narcissism is a strongly represented term in the literature of personality, receiving great interest from academics from the beginning of the developement of personality theories.

In the field of the literature researchers were searching for concludent theories about the narcissistic personality disorder, may have inconsistent results when testing the psychodynamic mask model of narcissism (Zeigler-Hill & Jordan, 2011; Morf & Rhodewelt, 2001; Haldaker et al., 2019), attempting to identify some consistency in the theories described (Hart et al, 2020; Schalkwijk et al., 2021). Horvath and Morf (2009) discovered that, validating the psychodynamic mask hypothesis, those with high self- reported superiority were hypervigilant for congruent negative primary worthlessness- denoting terms (Gu et al, 2013). Steiner et al. (2021) establish, through visual self- representation, that poorer self-concept clarity predicts self-image distortion and that self-image distortion leads to self-enhancement, consistent with a compensating response to insecurity. Their findings support the defence hypothesis of narcissism, which is linked to distorted and heightened self image, and also the psychodynamic mask model (Kernberg, 1993).

Furthermore, research in the psychodynamic mask model is

inconclusive, thus we must add that there are studies that do not support the claim that narcissism increases contingent self-esteem (Hart et.al., 2020).

In conclusion, the psychodynamic theory of narcissism emphasises the internal tensions and relational problems that narcissistic persons endure, which arise from early developmental experiences and are distinguished by a face of dominance that covers underlying weaknesses.

Similar to Machiavellians, individuals with narcissistic tendencies tend to self- promote in professional settings, demonstrating heightened career productivity as a reflection of their personality structure, as noted by Cui and Zhang (2021). Research has shown that narcissists often overestimate their creative abilities, with a study by Furnham et.al. (2013) revealing that independent raters rated their creativity lower than what narcissists believed. This characteristic of admiration was identified as having a negative relationship with social awareness and having the opposite association with social information processing and social skills (Hart et.al., 2021).

Jonason et.al. (2015) suggest that individuals with narcissistic traits tend to associate themselves with various forms of creativity, such as artistic, everyday, scholarly, mechanical, performance, and general creative abilities, based on self-reported measures like the Kaufman Domains of Creativity Scale (K- DOCS). This inclination may indicate a tendency towards defensive self-enhancement. Studies also indicate that narcissistic individuals struggle with distinguishing reality, further supporting the link between narcissism and creativity, particularly when assessed through self-report tools (Goncalo et.al., 2010; Dahmen- Wasselberg et. al., 2016). Lebuda et al.'s (2021) meta-analysis highlighted that the method of creativity evaluation significantly influences the relationship between creativity and narcissism. Two key moderators identified were the type of creativity assessment (self-reported or performance-based) and the specific aspects of creativity being measured. Also, they found a positive correlation for creative performance, but it can be counted as a trivial result (Lebuda et al., 2021). Looking through the lens of grandiosity, characterised by narcissism, we will observe that they tend to over- evaluate their own creative achievement because of this distortion of self-importance, but it’s not confirmed when other raters evaluate it (Sordia et al., 2022). The same positive result was

found when creativity was a self-reported measure; narcissists had the same impression of their great creative ability (Dahmen-Wassenberg et al., 2016; Goncalo et al., 2010). Malevolent creative ideation and Dark Triad personality traits have not been thoroughly studied in relation to one another, but Jia et al. (2020) found that narcissism mediated the relationship between malevolent creativity and childhood neglect. Malevolent creativity may not be predicted by narcissism and divergent thinking, as there was no significant correlation between the two (Cayirdag, 2021). Analysing the Dirty Dozen and Short Dark Triad scales revealed no correlation between harm-based creativity and narcissism (Jonason et al., 2017).

Narcissists with higher emotional intelligence scores and increased skill in interpreting and managing emotional cues are more likely to display emotions of pride, independence, and self-worth. Their sense of autonomy and self-importance could be influenced by their improved emotional awareness and management. By doing this, they will be able to rise above any social circumstance and manage their interpersonal relationships more skillfully by being aware of others' emotional states (Kaumbur et al., 2017; Petrides et al., 2011).

Because they need more rewards and want to avoid punishments, narcissists will not gamble with others' money because they are aware of the negative effects of punishment (Jones, 2014). Noser et.al. (2018) found that testosterone significantly modifies the relationship between narcissism and the width/height ratio in a fWHR study. Narcissism often takes the form of hostility or even schadenfreude in the academic setting (Jones & Neria, 2015).

One of the most widely recognized and empirically supported theories explaining why narcissists occasionally behave aggressively is the ego. Given their inflated sense of self-worth, narcissists are prone to react violently, particularly when their positive self-image is threatened—that is, when their views are contested, questioned, or otherwise questioned. This is known as "threatened egotism," and it is the most widely accepted and empirically supported theory (Bushman & Baumeister, 1998). Research has shown that narcissists protect their highly egocentric selves by acting in ways that involve direct aggression in response to insults or negative feedback (Barry et al., 2007;

Bushman et al., 2009; Vaillancourt, 2012); ego threats (Martinez et al., 2008); or social exclusion (Twenge & Campbell, 2003). Relational aggression and moral disengagement have been significantly mediated by the relationship between narcissism and the joy experienced at someone else's misfortune (Erzi, 2020). While Vazire and Funder (2006) discovered a link between narcissism and a lack of self-control, other researchers discovered that self-control had no discernible effect on the nature of sexual offences (Cové et al.). Because individuals with narcissistic tendencies may have experienced sexual aggression as children, they may develop a highly self-centred personality structure that masks their inner wounds and feelings of emptiness (Merlusca & Chiracu, 2018). Narcissism was found to have a negative correlation with substance dependence in a sample of offenders. Moreover, the opposite association (positive) has been demonstrated to be between narcissism and delusional disorder (Brugués Català & Caparrós, 2023). In order to preserve their appearance of moral integrity, narcissists have been observed to employ moral disengagement techniques like displacement of responsibility (Navas et al., 2021) and disproportionality of consequences (Brugués Català & Caparrós, 2023). Additionally, because it is driven by the desire to avoid punishment and obtain rewards, one of the characteristics of the DT, namely narcissism, is most closely linked to the BIS/BAS system (Huang & Liang, 2015). There was no relationship found between their personal history of abuse and any of the different forms of misconduct because of their arrogant sense of self-importance and self-image (Azizli et al., 2016). Because of its association with extraversion (Paulhus & Williams, 2002), narcissism has been linked to impulsivity (Vazire & Funder, 2006). This suggests that narcissism may be related to functional impulsivity (Jones & Paulhus, 2011). Because of their traumatic past, narcissists are linked to intersexual deception for dominance and appearance, which is a fact that is strongly related to that result (Jonason et al., 2014).

1.2.3 Psychopathy

1.2.3.1. Psychopathy

Perhaps if we take cronological order into account, the beginnings of psychopathy can be found in the term “manie sans délire," which refers to behaviour without regret or guilt. It was first used to characterise psychopathic disorder in the early 1800s by French physician Philippe Pinel (1801). When an offender's behavior could not be explained by a disturbance, lack of intellect, or reason—previously, this explained all mental disorders—he used the term to characterize those who understood the seriousness and consequences of their actions. Next was Prichard's 1835 work, “Treatise on Insanity and Other Disorders of the Mind”, where he first described a mental illness he named moral insanity (Prichard, 1835). This was presumably followed by German psychiatrist J. L. Koch (1891; cited in Skeem, et.al., 2011), who described it as a chronic condition and linked it to various character disorders, mental retardation, neurosis, and what is now known as psychopathy. The descriptions have changed over time, ranging from impulsive and reckless behavior linked to intact mental faculties (Prichard, 1835) to emotional coldness, callous exploitation of others, brutality, and a charming, persuasive, assertive, attention-seeking, and shallow nature (Kraepelin, 1904; cited in Skeem et al., 2011).

Hervey Cleckley, however, provided the first systematic description of psychopathy when he outlined its key characteristics in his 1941 book, The Mask of Sanity. In his detailed account, he defined psychopathy as having (at first, later, twenty- one) characteristics that are likely to be present in the general population outside of prison. Based on the cases detailed in his book, he concluded that this group was emotionally devoid of empathy, shame, and guilt, had normal intelligence, was impulsive, and was unable to form lasting relationships or take on responsibility. Different affective (such as lack of empathy and remorse), interpersonal (such as manipulation and narcissism), and behavioural (such as irresponsibility, impulsivity, and early and extensive antisocial behaviour) traits can be used to characterise psychopathic disorder (Cleckley, 1941; Cooke & Michie, 2001; Hare, 2003). Psychopaths are

accountable for 50% of violent crimes, despite the disorder's "only" 1% prevalence in the general population outside of prison and 10–25% in the inmate population (Hare, 1996b).

Psychopathy can be characterised by at least two factors, according to Hare's 1980 Psychopathy Checklist (still in use today: Psychopathy Checklist-Revised, PCL- R; Hare, 2003). This makes Hare's (1980) two-factor measure a valid reference tool for psychopathy. The behavioural traits of psychopathy are referred to as the first factor (social deviance), whereas the emotional deficit is captured by the second factor (affective/interpersonal). However, the question of how many factors best capture the concept of psychopathy is still debatable.

Other authors, also sustain that psychopathy should be divided into two types: primary psychopathy, which is characterized by poor anxiety, empathy, and emotion, and secondary psychopathy, which is marked by manifested impulsiveness, empathy, and guilt and is caused by an environmental or emotional deficiency (Newman, et.al., 2005). Evidence has shown that psychopathic people have cognitive and affective–emotional processing problems linked to brain abnormalities, also neurological and neuropsychologically (Patrick & Bernat, 2009), including structural and functional impairments in the amygdala and orbitofrontal/ventromedial prefrontal cortex (Blair, 2007; Kiehl et al., 2004; Patrick, 2007; Raine & Yang, 2006). Widom (1977) advertised for participants, asking for ‘‘charming, aggressive, carefree people who are impulsively irresponsible but are good at handling people and at looking after number one” (p. 675), and his results has shown that psychopathy-related characteristics such as poor empathy, or psychopathic deviance, also hypomania were discovered. No relevant association was found for participants' impulsivity and Machiavellianism scores from those of community members.

Cooke and Michie (2001) suggested that it is best to define psychopathy in a more complex way, by three dimensions (affective, interpersonal, and behavioral), rather than two, as was previously proposed. Once again, some disagree with the earlier theories of psychopathy. They believe that a four-factor model best explains psychopathy and identify criminal and rule-breaking behaviour as crucial components of the disorder in addition to affective,

behavioural, and interpersonal factors (Hare & Neumann, 2008; Neumann et.al., 2007).

It is noteworthy, however, that several researchers argue that rather than being categorical (or taxonomic) constructs, the personality traits associated with psychopathy should be seen as dimensions; that is, these traits are best understood as a continuum along which people differ in the degree to which they differ (Guay et. al., 2007; Herpers et. al., 2017). Psychopathy was found to be related to violence (Serin, 1991; Walsh & Kosson, 2008; Camp et al., 2013; Hart, 1998; Howard, 2017; Reydi et al., 2015; Coid & Yang, 2010; DeMatteo, 2020; Walsh, 2013; Blais et al., 2014) and additionally to violent recidivism (Asscher et al., 2013; Pedersen et al., 2010; Rice, Harris, 2013; Walters, 2012; Lewis et al., 2012; Sohn et al., 2020).

Psychopathy have gain interest in a major part of the research as a negative, and characterized as a violent offender, but psychopathy can be also an offender committing white collar crimes as well, being infiltred into higher social status as well. Cleckley (1941) coined the term "successful psychopath" to describe psychopaths who do not engage in antisocial conduct. Widom (1977) was the next who coined the phrase "successful psychopath" to describe people who develop psychopathic traits, commit antisocial activities, but are never apprehended. Cleckley's original perspective is supported by modern concepts about succesfull psychopaths (Hall & Benning, 2006), which suggest that characteristics are present but the individual does not engage in extreme antisocial conduct. According to Hare and Hart (1993), clinical and penitentiary institutional manifestations of psychopathy are just the tip of the iceberg, but many successful psychopaths operate in business (Board & Fritzon, 2005), academics (Lynam et.al., 1999), politics, and even the arts. They can have an evident edge in gaining professional success if they are fearless, socially dominant, and charismatic (Benning et.al., 2003; Lykken, 1995). Interpersonal manipulation, charisma, and intellectual aptitude that can be advantageous in social relationships are all qualities that contribute to the success of psychopaths (Salekin et.al., 2004; Lykken, 1995). At the affective level, there is a lack of empathy and superficial emotions (Hare, 2003). Finally, egocentrism, low anxiety, and difficulties creating strong emotional relationships

were all mentioned in Clekley's (1941) description. Successful psychopaths, on the other hand, have a variety of milder antisocial tendencies, such as alcohol abuse and violence (Neumann & Hare, 2008), harassment, and authority-related issues (Mullins-Nelson et al. 2006; Williams et al. 2007). Fraud and an unpredictable leadership style are two characteristics of successful psychopaths in the workplace (Babiak, 1995; Babiak et al. 2010; Boddy et.al., 2010). Successful psychopaths prefer relationship aggression and white-collar criminality, according to Gao and Raine (2010), while unsuccessful psychopaths prefer physical violence and blue-collar crime. Porter et al., 2009 found that psychopaths are 2.5 times more likely to acquire parole from the court if they request for it, since they have excellent manipulation abilities and control their actor- like talents in a variety of interpersonal contexts. The modest presence of impulsivity and irresponsibility characteristic of psychopaths, according to Stevens et.al. (2012), may be the source of success. Depending on the environment and the severity of the qualities, the construct of psychopathy might encompass traits that are both adaptive and maladaptive. Perhaps, based on the adaptability of the Cheating and Warrior Hawk hypotheses, psychopathy has an evolutionary theory (Book & Quinsey, 2004; Coyne & Thomas, 2008; Book et.al. 2019). As a result, the first explanation, the Cheater hypothesis, is proposed to explain the utility of psychopathy's manipulativeness. Cheating allows psychopaths to maximize their profit while simultaneously exploiting others in scenarios such as the Prisoner's Dilemma (Mokros et al., 2008; Widom, 1976). The second hypothesis is indeed backed by aggressivity, a psychopath's trait that is exemplified in the Hawk-Dove game. In order to comprehend the regulations, the haws are confronting circumstances, and the doves are escaping, but there is no extra explanation for understanding the aim of aggressiveness in Book and Quinsey's (2004) hypothesis. Moreover, extensive studies (Coyne & Thomas, 2008) validates these hypotheses with their outcomes, finding that cheating and both direct and indirect aggression are predictors for the case of primary psychopathy, so they are defined by opportunism and exploitive techniques in order to flourish. Secondary psychopathy, is predicted by direct aggressiveness, which enables individuals to become more impulsive, causing them to express their discontent.

As a result, unlike primary psychopathy, secondary psychopathy may be readily detected and linked to criminal conduct (Newman et.al., 2005; Coyne & Thomas, 2008).

Emotional deception can be detected in three ways (Ekman & Friesen, 1975): first, by the willingness to mime an emotional expression, but the individual does not feel anything; second, by masking the real emotion and showing the expression of another emotion; and third, by deception that the individual will neutrolyze the emotion, as evidenced by his neutral face expression. Psychopath offenders were shown to be less capable of articulating facial expressions when presented with pleasurable and unpleasant emotional imagery, according to Herpetz et al., (2001). Emotional intelligence and psychopathy have a negative relationship (Grieve & Mahar, 2010; Porter et.al., 2011). Porter et al. (2011) discovered that those with higher emotional intelligence were able to deceive in the expression of emotions by simulating for a longer duration, but challenged to conceal their true emotions.

1.2.3.2. Subclinical psychopathy

Individuals high in psychopathy exhibit a bias towards using familiar objects in divergent creativity tests, particularly in contexts where harm-based tendencies are observed, often displaying a willingness to engage in criminal behavior within these assessments. Nevertheless, studies show that they typically perform less creatively, maybe as a result of their impatience and propensity to complete things quickly (Jonason et al., 2017). According to Jonason et.al. (2015), psychopathy has also been connected to self-reported measures of creativity in mechanical domains and overall creative performance, in addition to Machiavellianism.

These individuals tend to gravitate towards domains where they perceive themselves as successful, a pattern that may stem from their unique personality traits. However, individuals characterised by traits of coldness and manipulation, such as those with Machiavellian tendencies, tend to exhibit reduced divergent thinking abilities, as evidenced by Dahmen- Wasselberg et al. (2016). This observation was further supported by the meta- analysis conducted by Lebuda

et.al. (2021), indicating that individuals with these traits may possess a more accurate self- perception of their creative capabilities. Therefore, while certain personality traits may be associated with creativity, they can also serve as limiting factors that constrain an individual's creative potential in specific domains. Psychopaths tend to moderate their creative ability in domains like science and the arts, and they tend not to overestimate themselves in self-reported measures of creativity because they have sufficient autoperceptive ability (Lebuda et al., 2021). Due to this, no correlations between general and everyday creativity were discovered (Galang et al., 2016).

Research into the connections between malevolent creativity and the DT is now in a greater focus (Szabó et al., 2022). Jia et al. (2020) claim that psychopathy has a mediating effect on the linkage that is found in malevolent creativity along with carelessness in the childhood stage of development. Furthermore, the findings showed a powerful linkage between gender, malevolent creativity, and psychopathy (Japp, 2023). A closer examination of this relationship produced results that were inconsistent with the theory: males who scored higher on psychopathy also produced lower percentages of malevolent creativity. This is contrary to the findings of Batey et al. (2022), where psychopathy conduct problems were a were a sub-factor and the malevolent divergent thinking test (MDT) showed a correlation, and this could be explained by the idea that creativity in general entails challenging norms and accepted conventions (Cropley, 2010). Extraversion, openness, and subclinical psychopathy are examples of personality traits that have been linked to malevolent creative behavior (Cayirdag, 2021). A review of the Dirty Dozen scale revealed a correlation between psychopathy and harm-based creativity (Jonason et al., 2017), but the Short Dark Triad, a psychopathy test, did not show the same correlation with harm-based creativity.

Regarding the religiosity of this personality trait, research has shown that they are negatively and significantly associated with an intrinsic orientation of religiosity because they frequently lack the capacity to comprehend the concept of God and have surface-level emotions (Kaumbur et al., 2018).

Men typically display higher levels of psychopathy than women, according to relevant research on psychopathy and sex (Gianmarco & Vernon,

2014). Because of their high impulsivity, antisocial people often make decisions based on emotional revenge and do not care about other people, even if it means committing a crime or assault. In this vindictive circumstance, they also demonstrated a strong and negative empathic concern, indicating that they struggle greatly to put themselves in the other person's shoes (Giammarco, Vernon, 2014). Psychopaths are recognized for their impulsive behavior and actions, which lead to vengeful fantasies (Delongis et al., 2011). Psychopathy is associated with dysfunctional impulsivity (Jones & Paulhus, 2011), as evidenced by the links found between it and low consciousness (Paulhus & Williams, 2002) and impulsivity (Jones & Paulhus, 2010). An increased impulsivity in the domains of the non-planning and motor factors is linked to PCL-R factor 2 (and to both facets 3 and 4 in turn). The idea that secondary psychopaths, such as those with high Factor 2 scores, exhibit impulsivity is linked to a lack of "futuring" or forethought (the non-planning factor) and acting without thinking (the motor factor) (Snowden & Grey, 2011).

The fact that psychopaths have issues with the legal system is not surprising (Williams, 2001); research on the subject began with criminals (Checkley, 1941), and studies have shown that 10% of psychopaths are incarcerated. Furthermore, research indicates that they will only get into a physical altercation if they perceive a physical threat (Jones & Paulhus, 2011a). Psychopathy was the only Dark Triad trait that Azizli et al. (2016) found to be predictive of misconduct. Their illegal actions have a higher chance of resulting in adult criminality (Hardyns et al., 2022) and are linked to gullibility and trust in strangers (Hart & Breeden, 2021).

Aggression in psychopaths and fWHR have been found to be correlated with income, but only under the strict stipulation that the income be below average (Noser et.al., 2018). Despite knowing that they could face consequences, they have no inclination to partake in risky activities like gambling, indicating that they are indifferent to facing legal repercussions for themselves or others (Jones, 2014). Factors such as relational aggression and moral disengagement have been identified as mediating between psychopathy and the joy felt at another's distress as a way of free expression in socially accepted contexts (Erzi, 2020). In particular, prisoners employ

dehumanisation, euphemistic labelling, comparative advantage, moral justification, and attribution of blame (Brugués Català & Caparrós, 2023). Because of the application of these moral disengagement techniques, individuals may feel guilty and ashamed in these circumstances (DeLisi et al., 2014).

Psychopaths may employ "hard" manipulation techniques, but generally speaking, they lack the self-control to express their complaints in an aggressive and impulsive way (Jonason et.al., 2012). However, because they are focused on the behavioral activation system (BAS), they can also act impulsively. They are particularly motivated to seek pleasure because it makes them feel good to be rewarded (Huang & Liang, 2015).

In their investigation, Merluşcă and Chiracu (2018) discovered a few relevant variables that contributed to the acquisition of characteristics at an early life stage. These factors include physical neglect experienced as a child, legal issues within the family, and inadequate support from external sources. Additionally, they discovered a positive correlation with sexual abuse, emotional and physical abuse, and a family history of violence. These findings suggest that these incidents may have been the catalyst for the internalization of a megalomaniacal and abusive mindset that was then externalized through impulsivity, violence, and criminal tendencies (Merluşcă & Chiracu, 2018). In this regard, research has also demonstrated a negative correlation between emotional warmth in the family and psychopathy (Liu et al., 2019). The findings indicated that murderers have lower levels of psychopathy when compared to violent nonhomicide offenders; however, murderers also had lower levels of lifestyle and antisocial psychopathy traits when compared to both other violent and nonviolent offenders. The findings indicated that, compared to community adults, violent offenders scored higher on psychopathy and had poorer functioning (McCuish et al., 2015; Oljača et al., 2021).

The principle of maturity, which states that personality traits increase until approximately the age of 18, after which there is a noticeable linear decline, may best explain young adult psychopathy. These findings were supported by a study by Wolff and Wetzel (2023), which provided preliminary evidence of a decline of a period of two years approximately, starting in at 18 years. Executive

function was impaired in offenders with violent and psychopathic criminal types related to property compared to controls (Türel et al., 2024). About 12% of all prisoners in the sample exhibited psychopathy or psychopathic traits, which aligns with some evidence demonstrated by the use of the PCL-R. Psychotic batterers were found to be younger, more impulsive and suspicious, less empathetic, and to have lower self-esteem than non- psychopathic batterers (Echeburúa & Fernández-Montalvo, 2007).

A study (Brugués Català, Caparrós, 2023) conducted on a group of prisoners revealed a positive association between psychopathy and all the psychological disorders that were investigated (dysthymia, anxiety, somatoform, bipolar, alcoholism, drug addiction, and post-traumatic stress disorder), showing same correlation in three mental illness (cognitive problems, depression, and delusional illness). Furthermore, Chabrol et al. (2009) discovered that, for boys exclusively, psychopathic traits were independent predictors of delinquent behaviors. One of the many behaviours linked to antisocial behaviour in later adulthood is cruelty to animals (e.g., Henry, 2004). The results showed that the only trait significantly associated with cruelty was psychopathy; more specifically, higher levels of psychopathy were linked to intentionally killing a stray, feral, or wild animal without a valid reason (Kavanagh et al., 2013).

1.2.4. Sadism

Our primary goal in the pilot study was to investigate personality traits as well as malevolent creativity, and we seriously considered including the Dark Tetrad core in the investigation; however, after considering all of the aspects, we decided to only include the Dark Triad core, without sadism. So, first and foremost, we wanted to avoid any conceptual misunderstanding that would arise from including sadistic personality qualities in the Dark Triad to form the Dark Tetrad. We assumed that it will conflict with malevolent creativity and sadism, as these two constructions have distinct goals, such that sadism may deflect the emphasis from the fundamental impulses that drive malevolent creativity. While malevolent creativity frequently involves innovative thinking to achieve harmful ends (Cropley et al., 2008), sadistic individuals may act out of a desire for

pleasure through the suffering or humilation of others in psychological, sexual, or physical ways that can be perceived as a domination or superiority (O'Meara et.al., 2011), which may overshadow the creative processes that we intended to investigate in our thesis. Another important point to emphasise for us was the inclusion or exclusion of sadism, if there are distinctions between malevolence and creativity, and if so, how can they be assessed accurately?! So the issue may arise: how can we tell if observed behaviours are motivated by creative genius or sadistic enjoyment? This overlap might confuse our interpretations of evidence regarding why particular individuals generate hostile ideas or deeds.

Another reason we chose not to include sadism in our pilot project is that we did not have a measure that has been translated and validated on the Romanian population, so we used the Dark Triad core to evaluate personality characteristics associated with malevolent creativity. New studies have intentionally sought to determine whether the traits of the Dark Tetrad are independent constructs or overlapping. Blötner and Mokros (2023) discovered that sadism shares some characteristics with traits in the Dark Triad, particularly psychopathy. These two constructs were measured for structural properties, and the results showed that they are virtually identical.

Other aspects that raised as a measurement issue we have identified, is that as far as we know, there aren't any studies made on the relationship between sadism and malevolent creativity, so that also MCBS has already received many critics about it's validity and utility in the field of research, and if sadism is not adequately controlled throught research designs, it may have caused us to confound results, making it challenging to isolate malevolent creativity as a distinct construct.

We considered self-report bias as well as other factors, and assumed that people with sadistic tendencies would respond differently to surveys or assessments than those without this trait, potentially skewing data on malevolent creativity or interfering with the research objective. Sadism may also overstate or underreport their inclinations due to social desirability or misunderstanding the meaning of the questions.

Furthermore, we recognise that investigating sadism as a personality characteristic in the forensic arena is critical for preventing and identifying the

mechanisms that underpin the behaviours associated with and the bad effects that might result from crimes and offences against others. In a Serbian prison sample, Oljača et al. (2021) found that only direct, physical sadism has a significant impact on mental health. Dinić et al. (2020) discovered that only direct sadism had incremental validity in predicting attitudes in various settings, not vicarious sadism.

Also, results are not concludent in the relationship of sadism and criminal reoffendering, some studies supporting it's association (Međedovic & Vujicic 2022) and others may have not found association in the prison population association between sadism and distress, but correlation appeared in the normal population (Oljača et.al., 2021).

Lastly, maybe in the social context and the interpersonal relationship that is the center of the investigation, individuals who exhibit sadistic traits, the expression of malevolent creativity may conform to more overtly cruel or harmful avenues, leading to results that may not reflect broader trends and what exactly we would proposed to measure.

1.3. Self-efficacy

The assessment of one's ability to carry out the necessary actions to handle future circumstances is the focus of perceived self-efficacy (Bandura, 1982), or it could be considered a "belief in one's capability to organise and execute the courses of action required to manage prospective situations" (Bandura, 1997, p. 2). People's choices of activities and settings are influenced by their sense of self-efficacy, and any factor that shapes behavior choices can have a big impact on a person's personal development (Bandura, 1978). Moreover, Bandura (1986) presents the idea of reciprocal determinism, which holds that interactions between (a) environmental influences, (b) behaviour, and (c) personal factors such as cognition, affect, and biological events produce a triadic reciprocity.

Individuals' perceptions of what constitutes an efficient level of performance can impact their decisions and behaviours in a number of ways, including motivational and self-regulation mechanisms. Most people avoid tasks in which they lack competence and confidence and engage in those in which

they do (Pajares, 1997). Perceived efficacy can impact behaviour in multiple ways, according to the self-efficacy theory, which holds that various influence modes modify coping behaviour by fostering and reinforcing expectations of personal efficacy.

Research has looked into many aspects of self-efficacy and how it relates to different factors in the context of incarcerated people. Research on the following topics has been studied: the connection between resilience (Malekzadeh et al., 2023); emotional regulation (Choudhury et al., 2017); quality of life in prisons (Skowroński, Talik, 2023); managing HIV (Andrinopoulos et al., 2010; Scheyett et al., 2008); father- child relationships (McLeod et al., 2024); participation in prison-based dog programmes (Flynn et al., 2019); abstaining from criminal behaviour (Johnston et al., 2019); adult attachment styles (Stuck et al., 2021); workplace crime (Muthuswamy, Varshika, 2023); psychophysical quality of life (Skowroński, Talik, 2022); and violence (Gillespie, 2005). Together, these studies offer insightful information about the complex relationship between self-efficacy and different facets of the lives and well-being of people who are incarcerated. The findings validate the predictions made by social cognitive theory regarding the necessary contextual elements for the emergence of human agency in its three manifestation forms: personal, collective, and proxy (Bandura, 2000). Serious offenders may feel more confident in their ability to outwit or manipulate the system if they can avoid arrest and face no legal repercussions. Perhaps this sense of invincibility is a result of prior successful interactions with law enforcement in which they were able to avoid detection or capture. Some criminals may develop sophisticated avoidance strategies, which may add to their perception of skill in avoiding the criminal justice system, according to studies by Jacobs (1996) and Dunford and Elliott (1984). Police officers and the prison institution must continuously modify and enhance their tactics for apprehending offenders in order to effectively counter strategies that are also avoidance techniques. In one study (Brezina and Topalli, 2012), it was found that nearly half (48%) of the prisoners believed they had been "successful" in their criminal endeavours, indicating a high degree of criminal self-efficacy. Given that they were not prosecuted or held accountable for their unlawful behavior, the percentage may even be higher among offenders who

are not in prison. Even though a large portion of the sample of current street offenders had previously been arrested, found guilty, and served time in prison, the majority (80%) of them still felt they were very effective at committing crimes, indicating once more how highly they perceived their own criminal self-efficacy (Brezina & Topalli, 2012; Brezina & Molinet, 2021). Further investigation is required to determine the origins of criminal self- efficacy; illicit revenue is undoubtedly one potential source, but it is by no means the only one. Studies in this field may contribute to our understanding of the elements of criminal success that are significant to offenders. (Brezina & Molinet, 2021). According to Pelissier and Jones (2006), men who were incarcerated showed a lower belief that life's negative events are caused by permanent causes and higher scores of general self-efficacy than women.

There are many studies that confirm the negative and significant relationship between antisocial behaviour and self-efficacy among youths (Forrest-Bank & Jenson, 2015; Caprara et al., 1998; Ramolale et al., 2021), as well as a predictive connection between them, so the higher the antisocial level of one's self-efficacy (Bandura et al., 2003; Umar et al., 2021). Prosocial aspirations for the future are more common among juvenile offenders who have higher prosocial self-efficacy. Aspirations and self-efficacy are also linked to shorter stays in residential placements and a decrease in delinquent behavior afterwards (Cuevas et al., 2017). The results from Oberlader et al. (2023) bolster the theory that a person's confidence in committing a crime is related to their past criminal activity. Even with a higher risk of recidivism and a higher number of convictions, criminals continued to believe that they could achieve their objectives by engaging in criminal activity. The idea that prison is a place where criminal skills are developed suggests that confidence in criminal behaviour not only endures during incarceration but may even grow stronger; furthermore, a greater commitment to upholding the law was linked to lower risk scores for recidivism. The correlation among identity, self-assurance, and prior criminal activity emphasizes the necessity of supporting a resource-based strategy that strengthens an identity based on law- abiding behavior and confidence in lawful behavior in order to facilitate the desistance process. Although self-efficacy is thought to be a crucial mechanism in organising

behaviour, as social cognitive theory sustains (Bandura, 1997), it did not explain the variance in survival time until recidivism for either law-abiding or criminal behaviour (Oberlader et al., 2023). Some results showed that the convicted community inmates had very low levels of self-efficacy. This was ascribed to the notable opposition and unfavorable sentiments demonstrated by the wider public toward those who had been found guilty of offenses. The social stigma that was still in place and the lack of community support were factors in the convicted people's declining confidence and sense of self (Lesmana, 2019). The effects of criminal victimisation on self-efficacy and self-esteem differ noticeably between African Americans and whites in an inmate sample. More precisely, criminal victimisation had no discernible effect on white people's self-esteem and self-efficacy because white people likely attributed their own victimisation to an internal cause and blamed themselves. In contrast, African Americans' self-reported feelings of self-efficacy and self-esteem were directly decreased by criminal victimisation, possibly as a result of an external attribution of the cause of victimisation determined by the blaming of the system. Additionally, African Americans who struggled more to overcome their victimisation showed lower levels of self-efficacy (De Lisi et al., 2010).

The association between past delinquency and future delinquency was found to be unmediated by general confidence but was associated with self-efficacy in a regression analysis that took into account both self-efficacy and general confidence in avoiding future legal issues. These findings suggest that self-efficacy, a particular social cognitive factor, effectively mediated the continuation of criminal activity, even though a general confidence in avoiding legal issues did not influence the continuation of criminal behaviour. Reactive criminal thinking, which functions as the mediating factor in crime continuity within the control model, can be seen as the opposite of self- efficacy, which is a mediating factor in crime continuity within the moral model. (Walters, 2017). According to a meta-analytical review (Walters, 2020), criminal self- efficacy was found to be highly correlated with juvenile delinquency and adult criminal behavior, along with other factors like criminal identity (including feared possible selves and reflected appraisals). Because of their substantial influence, these factors should be carefully taken into account. A countercriminogenic effect can

be produced by a combination of strong self-efficacy toward living a conventional lifestyle, negative expectations about the consequences of criminal behavior, and positive reflected appraisals of non-delinquent behavior. This implies that, in order to successfully encourage prosocial behaviour and discourage criminal activity, interventions and programmes meant to lower delinquency and criminal behaviour should address these factors (Walters, 2020). The likelihood that offenders would follow through on their required supervision obligations was significantly correlated with positive psychological states like flexibility, general self-efficacy, optimism, and hope. This may be explained by the fact that offenders who possess more robust positive cognitive resources are less likely to lose focus when trying to adhere to the conditions of their supervision orders or pursue their goals of rehabilitation. Positive psychological states had a significantly stronger mediating effect than any of the individual positive psychology constructs on the relationship between criminogenic risk factors and all offender supervision outcome variables. This may indicate that during the 12-month follow-up period, offenders with elevated positive psychological states across all four dimensions were less likely to have criminogenic risk factors and, consequently, were less likely to have been charged, imprisoned, or reported for technical violations. The argument regarding the synergistic effect of positive psychological states as an all-encompassing characteristic that promotes behavioral changes in offenders under community supervision is supported by this finding (Woldgabreal et al., 2016). Making comparisons in a deliquent youth group, where self-efficacy and religiosity were investigated, in the moderately religious, low self- efficacy and low religiosity, and high self-efficacy classes, the percentage of youth engaged in delinquent behaviour was significantly lower in the high religiosity and high self-efficacy lasses. Highly religious and highly self-efficacious youth were found to differ significantly from other youth in the sample in a wide range of delinquent behaviors, including public disturbances, property damage, theft, drug sales, automobile theft, and severe attacks. To summarise, the results appear to indicate that young individuals who derive benefits from both high religiosity and self-efficacy are not like their peers in terms of behaviour, even if they independently report moderate levels of religiosity and high self-efficacy

(Salas-Wright et al., 2017).

Numerous domains related to substance use and addiction have shown studies to highlight the significance of self-efficacy (Holloway et al., 2021), motivational interviewing (Berman et al., 2010), and therapeutic communities (Lee et al., 2014; Majer et al., 2016). However, there may be a negative correlation between drug use and self-efficacy, particularly if the user has a history of heavy drug use and feels that they are unable to overcome their dependence. Research by Whipple et al. (2016), Pastwa-Wojciechowska and Guzińska (2023), Moos and Moos (2006), Pelissier and Jones (2006), and others suggests that people who are more confident in their ability to maintain long-term sobriety frequently have a background of stable housing environments that prioritise recovery after release from prison. Furthermore, inmates with a history of drug use have demonstrated that psychodrama effectively raises their self-efficacy over the course of a 21-week programme (Testoni et al., 2020). Friestad and Hansen (2005) demonstrated that self-efficacy has a predictive effect on the mental health of prisoners through the study they conducted. Notable correlations were observed between self-efficacy for health management and health- promoting behaviors as well as self-rated health in an older prisoner sample. These relationships may be attributed to the importance of needs and willingness in this crucial area of life, as well as the variety of outcomes that may result (Loeb et al., 2010; Loeb et al., 2006). When self-efficacy and involvement in prison education were compared, it was discovered that, while actual reading or spelling abilities did not predict participation, higher self-efficacy beliefs in writing were linked to a higher likelihood of participation. In comparison to older prisoners, younger prisoners were more likely to take part. Moreover, inmates serving longer sentences were twice as likely to take part in prison education, maybe because they were aware of its advantages. Due to their potential awareness of the need to develop these abilities, those who self-reported a diagnosis of a specific reading and spelling disorder, such as dyslexia, were also twice as likely to take part (Jonesa et al., 2013). Due to their willingness to accept professional assistance when necessary and the emotional support and guidance they received from clinicians, older prisoners with higher global emotional support

scores were correlated with self-reported good health-related self-efficacy (Noujaim et al., 2017). Increased interest was shown at prisoners' self-efficacy and their reading and writing skills (Jones et al., 2012) and the effects of self-stigma in the educational setting (Evans et al., 2017).

Moreover, numerous researches indicated a strong correlation between quality of life and self-stigma (Skowroński & Talik in 2021, 2022, and 2023). Enrolling in programs and courses with fewer students than in regular classes and the possibility that their educational backgrounds will closely align with those of their peers are just two of the many reasons why prisoners may benefit from education while incarcerated. According to the social learning theory, another reason is that these classes would fill their daily schedule with valuable work while emphasising the acquisition of new ideas and information through the helpful influence of their peers. An additional advantage could be quantified by removing access to substances or other addictive factors, or it could be linked to a reduction in the likelihood of committing new crimes while providing a temporary shield (Jones & Manger, 2019). Studies reveal that inmates with greater self-efficacy are more likely than their counterparts to participate in educational programmes or courses (Roth et al., 2017; Jonesa et al., 2013). The question of whether participation in prison education is more influenced by self-efficacy beliefs in reading and writing than by actual skills is raised by the study by Jonesa et.al. (2013). Inmates involved in a prison exchange model showed lower levels of self- efficacy at the beginning of the course, but these levels significantly increased by the end of the 15-week programme (Allred et al., 2013).

Our attention is also directed towards the linkage that could exist in self-efficacy along with creativity, specifically on creative self-efficacy, which is defined as "a person's perceived confidence to creatively perform a given task, in a specific context, and at a particular level"[7] (Beghetto & Karwawski, 2017, p. 6). Participants in a cloud- based learning environment have shown medium- and small-sized positive effects on the novelty and functionality criteria for product creativity. More precisely, participants in the experimental group who were low in creative self-efficacy were able to provide more complex evaluations of product creativity than participants in the high creative self-

efficacy group (Chang et.al., 2021). Subsequent analysis showed that those in the experimental group with higher creative self-efficacy scores performed marginally better in response generation than those with lower scores. It is interesting to note that participants showed positive effects across all four stages, ranging from moderate to high levels, when assessed on their comprehension and application of the creative process. This implies that creative self-efficacy may be essential for both coming up with creative solutions and for successfully interacting with and navigating the entire creative processFurthermore, the study demonstrated a correlation between higher levels of self-efficacy and improved job performance in addition to higher levels of creativity. Creativity can be considered as a mediator between self effectiveness and job performance. Moreover, interactions with unfriendly clients and following service guidelines were found to have an impact on self-efficacy and creativity. More precisely, high customer rudeness and rigorous adherence to service protocols were found to reduce the positive correlation between self-efficacy and creativity. These results demonstrate the intricate interactions that influence how well people perform and produce creative work in the workplace, including self-efficacy, creativity, and external situational factors.

1.4. Self- esteem

Roserberg (1986) defined in a very simple way self-esteem, claiming that it is ‘the wish to think well of oneself” (p. 53; see Gillespie, 2005). According to Rosenberg (1965), self-esteem is the total opinion or mindset that people have about themselves. This assessment may take the form of a transient attribute shaped by particular circumstances or a more permanent feature that sums up a person's overall self- perception. According to research, the trait of self-esteem comprises an all- encompassing framework that includes an individual's overall perception of their own value and significance. It is thought that this trait component of self-esteem basically the thought that has somebody about his/her own person, affecting how people view themselves in a variety of contexts and domains. The trait component of self-esteem offers a more durable and steady basis for people to assess their total self- worth and significance,

whereas state self-esteem can change depending on particular aspects like appearance, social interactions, and performance. Considering that, in contrast to the state perspective, trait-based self-efficacy is characterised by a more persistent and consistent self-evaluation that influences how people see themselves in various spheres of their lives, As a result, it lacks unique subgroups and situational triggers.

A different interpretation of what self-esteem is is highlighted by Musitu et.al. (1988), who believe that it can be defined as the degree of personal satisfaction that serves as an indicator of the worth and evaluative quality of one's thoughts and behaviors. While self-esteem is frequently seen as a constant feature, research has shown that it can vary throughout life (Trzesniewski et.al., 2003).

Investigating the correlation between self-esteem and different prison elements, like thinking errors (Clark, 2020), criminal social identity (Boduszek et al., 2012), early risk factors for violent offenders (Woessner & Schneider, 2013), in connection with the locus of control (Blatier, 2000), executive functioning (Baker & Ireland, 2007), offender attachment styles (Onyedibe, 2011), and coping strategies (Gudjonsson & Sigurdsson, 2003; Marshall et al., 2003), can also aid in our comprehension of the cognitive, social, and behavioral processes of offenders in correctional environments.

Subsequent examination of the data indicated that teenagers with higher self- esteem scores were not only more likely than their peers to experience poor mental and physical health as adults, but they also had worse economic prospects. These teenagers also showed a higher probability of experiencing problems with others, expressing a lower level of life satisfaction, and participating in substance abuse behaviors (Boden et al., 2008). Trzesniewski et al. (2006) found that the study also revealed a correlation between elevated self-esteem scores and a heightened likelihood of engaging in criminal activities and being convicted more frequently as adults.

Against their original hypothesis, Thapa et al. (2020) found that the association between recidivism and criminal attitudes—that is, pride—was stronger for women with higher self worth. On the other hand, this relationship held true for men. The intricate relationship between criminal behavior,

recidivism, and self- esteem is highlighted by these findings, which also imply that gender may have a major influence on these dynamics. As a result of their potential for low self-esteem resulting from their failure to successfully adjust to life outside of prison, state-bred criminals do not display defensive self-esteem and are able to successfully integrate into prison society. On the other hand, inmates convicted of violent crimes or drug- related offences have much lower self-esteem because they are more likely to force a desired result (such as suppression or abstinence), which makes the prisoner feel unworthy while incarcerated (Oser, 2006). Self-esteem and crime or delinquency have a marginally significant negative relationship, according to a meta-analytical review; however, this effect size increases when delinquency is studied (Mier & Ladny, 2017). Using mixed samples, a meta-analytical review concluded that violence was more closely linked to low self- esteem than to high self-esteem (Walker & Bright, 2009). Donnellan et al. (2005) conducted a thorough investigation that looked at the relationship between externalization behaviors and self-reported low self-esteem, as well as the possible influence of confounding variables on this relationship. The researchers attempted to provide a nuanced understanding of the way self worth impact their externalization behaviors through a combination of cross-sectional and longitudinal analyses, while also taking other factors that could potentially confound the results into account. All of the offender groups' social desirability and self-esteem scores exhibited a positive correlation, suggesting that offenders tend to exhibit more pro-social behaviour the higher their self-esteem in an effort to present a more positive image of themselves than they actually are. Pervan and Hunter (2007) conducted a study with different types of inmates, and of all the offender groups, violent offenders had the highest self-esteem scores and the strongest pro-social bias. This is likely due to their conscious attempt to conceal their low self-esteem and their conscious lack of empathy, which helps them project a positive image. The same authors claim that rapists and child molesters have somewhat lower self- esteem than the other groups. In group comparisons, the self- esteem scores of child molesters are the only ones that come close to a statistically significant difference, while the rapists' scores are marginally lower than those of the violent offenders (Pervan & Hunter,

2007). According to findings from other studies, low self-esteem in the youth and adolescent population is associated with behavioural issues, crimes, or both (Fong et al., 2008; Trzesniewski et al., 2006). It is also a predictor of violence (Sutherland & Shepherd, 2002).

On the other side of the argument, there are those who discover the opposite outcomes, demonstrating a link between criminal activity and high self-esteem. They maintain the position that the "inflated view" caused by the narcissistic trait (Baumeister et.al., 1996; Baumeister, Bushman, & Campbell, 2000; Bushman & Baumeister, 1998; Bushman et al., 2009; as cited in Otrowsky, 2010) can explain the aggressiveness and violence. In the literature, there have been conflicting findings regarding the relationship between aggression, violence clearance, and self-esteem. Otrowsky (2010) made some insightful observations regarding potential issues that could arise. These issues include the measurement of various forms of self-esteem, which go beyond their general form, and the challenge of accurately assessing an individual's self-belief as it is, as opposed to what they would like to believe about themselves. Self-esteem is unstable as a construct, which again prevents generalizable results from being drawn from it. This is another aspect linked to deficiencies. Additional factors include the kinds of violence that were assessed, gender disparities, and the use of small samples from university settings, which prevented the results from being extrapolated to other populations. In an intriguing study, Hubbard (2006) discovered that while self-esteem was not directly linked to recidivism among incarcerated individuals, it was influenced by race. Higher self- esteem was found to be positively correlated with recidivism for black people and negatively correlated with recidivism for white people, indicating that the former group experiences lower rates of recidivism. Recidivism was unaffected by gender in that study. Low self-esteem can play a significant role in committing crimes, but there is no predictive relationship between it and recidivism in an inmate recidivist sample study (Ghasembaklo et al., 2014). Another study (Gillespie, 2005) that demonstrated the racial disparities in self-esteem found that while black inmates had higher self- esteem than white inmates, only white inmates had the predictive power of self- esteem on prison violence. One study's findings among juvenile deliquents (Tural

Hesapcioglu, 2017) demonstrated that, in contrast to those who reported thefts or acts of terrorist propaganda, those who reported malicious wounding as their first reported crime had higher self-esteem and fewer depressive symptoms. This was true even though the three groups—thefts, terrorist propaganda, and malicious wounding—did not significantly differ from one another in terms of sociodemographic characteristics. According to Marshall et al. (2009), there was a suggestion that the four-pathway model was structured around the concept of self-esteem. Of these, two required the sexual offender to have low self-esteem, while the other two required at least adequate self- esteem. Additionally, the model is predicated on the notion that, in two scenarios, low self-esteem results in shame for having committed a sexual offense, while adequate self-esteem ought to result in guilt in the other two scenarios.

Furthermore, shame ought to cause significant cognitive distortions, the kind of which will vary according to whether the offender admits to the offence or tries to prevent recognition of it. Sexual offenders who experience shame can be expected to respond to their offences in one of two ways. Some people will contest ever having offended; for instance, they might say they were the ones who broke the law, but the victim lied, desired retribution, or was just a victim of a conflict with the law. As an alternative, he can acknowledge committing the crime but be unable to handle the psychological fallout from his actions, blaming the victims or a family member or claiming that he was under the influence of drugs when he committed the crime (Marshall et al., 2009). Significant findings revealed that witnessing and experiencing victimization was a contributing factor in the higher propensity of teenagers to become delinquent. These teens also self-reported low scores of self-esteem and little social support. Experiencing violent crime or witnessing victimisation resulted in general delinquency among young people lacking in social support and self-esteem (Kort- Butler, 2010). Higher self-esteem at the time of their initial jail admission prevented offenders from internalising and anticipating stigma because it served as a buffer against various aspects of self-stigma. This confirms our theory that people with higher self-image perceptions are less certain that they will have unfavourable expectations about discrimination in the future and believe that stereotypes are unique to them. Given that both

internalised and anticipated stigma are arguably the most self- relevant aspects of self-stigma, it is not surprising that they shared this protective factor. Due to their increased propensity to internalise and anticipate stigma, low-self- esteem criminals would likely benefit from both a clinical evaluation and a tailored intervention that addresses stigma (Moore et al., 2018).

Even in the face of growing difficulties after release from the correctional facility, the preservation of self-efficacy and optimism for a bright future becomes a significant predictor of desistance (Burnett, Maruna, 2004). It was discovered that hope among prisoners is a significant predictor of self-efficacy, which may affect and create opportunities for prisoners to view the future optimistically and increase their willingness to take action toward leading law-abiding lives (Biel, 2018). Reflected opinions from various social groups may or may not be relevant for particular identity categories, according to research (Asencio, 2014) on various identities from inmates and guardians. It is likely that participants rely more on reflected assessments from peers and significant others who became acquainted with them better than from guards who are essentially considered to be strangers because the criminal identity yields less concrete results. When evaluating reflected evaluations from guards— inmates with whom the respondents have little to no involvement in creating and upholding regular interaction patterns—it is possible that the affective component of self (self-esteem) will remain dormant (as opposed to significant others and peers). In order to try to strengthen and improve their self-esteem and self-belief, people should adopt a variety of strategies, according to Alavi's (2010) study.

These strategies include understanding one's own abilities, having faith in God, firmly combating any feelings of inferiority, and avoiding self-humiliation. This is because, in comparison to the criminals with histories of drug abuse, theft, and prostitution, the normal participants in the study sample had greater self-reported self- esteem. Additionally, we would like to share some of the most recent findings regarding the subject of self-esteem after reviewing a body of literature containing historical evidence, as we believe that understanding the past is crucial to comprehending the present. Having high self-esteem is beneficial in all of these areas, and these advantages are consistent with age,

gender, and race/ethnicity, according to the findings of the most recent meta-analytical review on the topic of whether having high or low self-esteem is better (Orth and Robins, 2022). They contend that having a strong sense of self-worth also makes one more resilient in the face of rejection and setbacks, which may again result in improved performance in the workplace, relationships, and health. An additional study was conducted to confirm that offenders—in this case, sexual offenders—have high self-esteem, which lends credence to the evidence linking criminal behavior and high self-esteem (Loinaz et al., 2018). Adults selected from a prospective longitudinal study of children with documented histories of childhood maltreatment and court cases of physical or verbal injury and carelessness were directly linked to decreased self-esteem when compared to their demographically matched controls. (Díaz-Faes & Widom, 2024). These results support the theory that early experiences determine a child's self-esteem and that inadequate parenting, which lacks warmth and protection (like in early childhood abuse or neglect), influences a child's social attitudes, conduct, and self-esteem (Harris & Orth, 2020).

Given the significant influence that dental disorders can have on medical conditions, the relationship between a prisoner's oral health, quality of life, and self- esteem was also investigated. There was no appreciable correlation between the two variables, according to Yoon et al. (2023). Cognitive training was limited to older prisoners due to their high-risk vulnerability, as evidenced by numerous questions about their physical and psychological well-being. The 12-week programme received positive feedback from both the staff and the prisoners, who perceived this kind of cognitive training as very beneficial and stimulating. Furthermore, the training's benefits and outcomes could be measured in terms of the participants' improved understanding of aging and cognition as well as their increased self-esteem (Verhülsdonk et al., 2024).

An online study with a sizable cohort of drug-addicted, formerly imprisoned offenders revealed that self-stigmas related to substance use and criminality, both separately and together, predicted treatment engagement and self-esteem. Drug avoidance self-efficacy was also predicted by the interaction effect and substance use self-stigma (Newman & Crowell, 2023). It was found

that participants with a history of substance abuse disorders (diagnosed with SCID-5) have been found to have reported lower self-esteem than those in the control group when their self-esteem levels were compared with those of drug addiction in a normal sample. All of these members of the experimental group applied to the probation unit, where it was discovered that there was a connection between substance abuse and the commission of crimes related to addiction (purchasing, possessing, or selling) (Sehlikoğlu et al., 2023).

Zeigler-Hill (2013) highlighted the importance of self-esteem as a critical construct that has an influence in diverse spheres of life. The author emphasized the strong evidence that supports the idea that self worth is crucial in determining experiences and accomplishments, even in spite the criticisms directed towards self- esteem research. In addition, Zeigler-Hill's claim emphasizes the self- esteem's continuing significance as a basic component of human psychology, impacting how people view themselves and deal with opportunities and challenges in their lives.

Stronger conspiracy theories were linked to more violent extremist intentions, according to research (Rottweiler & Gill, 2022) that examined violent extremists in a typical population and their conspiracy theories. This relationship was contingent on several individual differences, suggesting that it is much stronger for those who exhibit lower self-control, hold a weaker law-relevant morality, and score higher on self- efficacy. The opposite effect is taken into account for low extremist beliefs when individuals exhibit high levels of self-control and higher morality relevant to the law (Rottweiler and Gill, 2022).

A youth sample (aged 14 to 18) was used to test the mediation model that links delinquent behaviors with lower self-esteem scores and child sexual abuse. Being a boy was linked to more delinquent behaviors, and this effect was greater among child sexual abuse victims. Gender was also thought to be a moderator variable in the mediation model between child sexual abuse, self-esteem, and deliquent behaviours (Gauthier-Duchesne et al., 2022). Some findings show that parental behavioural control is not effective at preventing antisocial behaviour due to its inability to foster autonomous self-control and self-esteem (protective factors) in adolescents (Wang et. al., 2023). Therefore, it is possible that, after controlling for other confounding factors, having

responsive and supportive mothers can significantly and positively increase adolescents' self-esteem. This suggests that maternal responsiveness and self-esteem are positively correlated. An additional feature is that the association between maternal responsiveness and non-aggressive antisocial behavior in teenagers is entirely mediated by self-esteem. The preventional information these results provide about youth engaging in delinquent behaviours makes them extremely significant (Wang et al., 2023). Building on Kernis's (1993) research findings regarding high but unstable self-worth exhibit a propensity towards aggressive behavior when their self- perceptions are threatened. This demonstrates the intricate relationship that exists between the degree and stability of one's perceived self-worth in determining the response to ego threats, highlighting the significance of taking these factors into account when researching how self-esteem affects interpersonal dynamics.

Furthermore, Onyedibe's (2011) discovery of a connection between low self- esteem and psychopathic behavior adds yet another level of complexity to the field of self-esteem studies. It also highlights the need for a thorough understanding of the factors influencing self-esteem across various populations and contexts. People displaying psychopathic traits are predisposed to lower levels of self-esteem, which provides insight into the psychological underpinnings of such behavior.

The study by Pastwa-Wojciechowska and Guzińska (2023) examined male prisoners receiving addiction treatment's self-efficacy and self-esteem in the context of being incarcerated. There were no appreciable variations in the participants' levels of self- esteem between the two groups, despite the intervention program's emphasis on improving self-perceptions and self-beliefs. This surprising result calls into question the efficacy of conventional methods for addressing problems with self-esteem in correctional settings and emphasizes the need for specialized interventions that take into account the particular difficulties incarcerated people face in regaining their sense of self and confidence. Furthermore, the study reported that there were no differences in the two groups' degrees of self-esteem.

Another study on German teenage sexual offenders found significantly decreased self-efficacy and self-esteem. Additionally, they

discovered that although there was no difference between those found guilty of child abuse and rape on any of the dependent measures (anti-social personality factors—aggression, impulsivity, hostility, and predisposing personality factors—self-esteem, self-efficacy, empathy, and neutralisation), the former group tended to show lower levels of self-efficacy (Hosser & Bosold, 2006). Building on the discoveries of Yang et al. (2019) in their cross- sectional investigation involving patients suffering from substance abuse disorders, the study revealed complex connections among important psychological concepts. The observed mediation effects highlight how resilience, self-efficacy, self-control, and self- esteem interact in a complex way and highlight how these factors have multiple effects on people's behaviors and overall well-being.

Resilience and self-esteem have been mediating the coonection of self-control and self-efficacy. This suggests that these constructs are interrelated in influencing people's beliefs about their own skills and ability to overcome obstacles. The study underscores the significance of psychological resilience in promoting positive self- perceptions and adaptive coping strategies among individuals battling substance use disorders by clarifying the role of resilience as a partial mediator in the relationships between self-control and self-concept, as well as between self-efficacy and self- regard.

1.4.1. Impulsivity

One of the first definitions of impulsivity is the inability to restrain inappropriate behaviour, to delay gratification, and to act thoughtfully (Barratt and Patton, 1983). But another definition includes a “predisposition towards rapid, unplanned reactions to internal or external stimuli with diminished regard to the negative consequences of these reactions to the impulsive individual or to others” (Evenden, 1999). Impulsivity was researched in association with dark personality traits (Malesza & Ostaszewski, 2016; Jones & Paulhus, 2011; Malesza & Kalinowski, 2019).

Researchers (Blaszczynski, Steel, & McConaghy, 1997; Neumann et al., 2007) have also claimed that when assessing the link between psychopathy and impulsivity, the two constructs may overlap. Other researchers have said that

psychopathy tests, such as the PCL-R, are only effective at predicting offences when they can detect the degree of impulsivity (Skeem et al., 2011).

In offender samples, consistent results have indicated that impulsivity (BIS-11) and PCL-R Factor 2 scores are positively correlated (Snowden & Grey, 2011; De Tribolet-Hardy et.al., 2013). When measuring the relationship between impulsivity (UPPS) and psychopathy (PCL-R), the results of Grey et.al. (2018) were opposite as they proposed and the results obtained previously when examined by Poythress and Hall (2011), thus they waited that the Lifestyle/Antisocial factor of psychopathy not be significantly associated with both Negative and Positive Urgency while the Interpersonal/Affective factor of psychopathy should be in a positive association.

Some evidence indicates that harm committed in long-term psychiatric wards is associated with brain damage (Brassard & Joyal, 2022; Joyal et al., 2011), particularly to the frontal cortex, as evidenced by olfactory and attentional deficits, which have been confirmed with neuropsychological tests rather than neuro-image techniques.

Furthermore, because neuropsychological attention or impulsivity (state) is appropriately associated with institutional psychiatric violence, their findings did not support the hypothesis that trait impulsivity and psychotic positive symptoms are related to neuropsychologically measured attention or impulsivity. Thus, their (Grey et.al., 2018) sample included both psychiatric and prison groups, and they may assume that the discrepancies occurred because they employed clinician-rated measures rather than self-report measures. When measuring psychopathy (PPI) and impulsivity, Fox and Hammond (2017) noticed that 70% of the variance in scores was overlapping between these two constructs, implying that the shared space between psychopathy and impulsivity can be best interpreted and perceived as multidimensional. Another research reached the same result on how the relationship between impulsivity and the Dark Triad should be seen, specifically in a multidimensional context. Kiire et al. (2020) investigated if every construct of the DT can be distinguished from the core using the UPPS-P model. In addition, in the forensic literature, the concept of impulsivity is regarded a predictive factor of sexual homicide in a sample of male convicts who

committed sexual assault (Healey & Beauregard, 2016). There is no established explanation concerning sexual murdering, and it might be based on a variety of environmental circumstances that lead to this form of crime, one of which is undoubtedly impulsivity.

DeLisi and Wright (2014) were also interested in the sexual offences idea, but in addition to the self-control difficulty, they supplied two new personality traits, psychopathy and sadism. As imprisonment brings with it a series of new conditions that must be settled and organised to maintain the rules, some inmates have a tendency to cause themselves conscious self-injury and engage in these types of behaviours in order to manipulate diverse situations or to try to manage stressful situations they encounter, rather than as an affect regulation model or as an experiential avoidance model (Chapman et al., 2006).

Another study looked at the association between self-injury in prisoners in an Italian prison (Bani et al. 2019) and how stressful circumstances are associated to the prevalence of this sort of behaviour. Based on their findings, they have identified four categories or typologies of self-injured behaviour based on the degree of impulsiveness, psychological distress, social support or social participation, and history of self-injury. The dysregulated form has elevated levels of all of the components listed above. The impulsive profile of the inmate, as the name implies, has a high level of impulsiveness while experiencing only moderate distress.

The midly troubled category is distinguished by a low level of impulsiveness, but they feel higher levels of discomfort in various scenarios. The last profile, known as well-balanced, has the lowest levels of impulsivity, history of self-injury, and distress, as well as a positive association with the help they get (Bani et al., 2019).

The field of creativity and its relationship to impulsivity has received little research, resulting in little evidence. Although Barron (1963) previously highlighted the relationship between these two dimensions, Schuldberg (2001) is one of the writers that discovered a link between impulsivity and creativity.

A systematic review (Alford et al., 2020) found that impulsivity is substantially associated with various characteristics in forensic samples,

including drug/alcohol intake (Davis et al., 2017), brain traumas (Schwartz et.al., 2017), and sleep problems. Another systematic study on crime indicated that psychopathy, impulsivity, and unfavourable childhood experiences contribute to offences (Tharshini et al., 2021).

The developmental approach to impulsivity is also a key step in understanding the construct itself and the early phases involved, in order to devise an effective plan to avoid trait formation. Moreira et.al. (2024) found that the connection between parental abuse and impulsive or planned violence is mediated by emotional regulation issues, personality characteristics, and psychopathy. As a youngster is unable to successfully control his techniques for managing his emotions in the early years of his life, he may develop a faulty mechanism that helps him cope with the circumstance and may also participate in impulsive behaviour (Chen, 2020). According to Senkal and Ertürk et al. (2020), early childhood experiences of parental abuse may contribute to improper development of emotional regulation skills. The review's conclusions about the connection between early trauma and high impulsivity were not entirely consistent (Alford et al., 2020). Furthermore, new studies indicate that early trauma negatively affects the brain and cognitive systems that are in charge of inhibitory control (Marshall et al., 2016). Although contradictory new studies suggest that early trauma negatively affects the brain and cognitive systems that are in charge of inhibitory control (Marshall et al., 2016), the review's conclusions regarding the relationship between early trauma and high impulsivity were not entirely consistent (Alford et al., 2020).

Men who committed acts of intimate partner violence (IPV) showed higher levels of impulsivity and alexithymia when compared to men who were victims of IPV. This research highlights how important it is to consider these aspects when understanding IPV and developing effective interventions for it. According to the findings, it can be highly advantageous to address these psychological constructs early on in the male intimate partner violence perpetrators psychological intervention in order to reduce aggression, improve psychotherapy outcomes, and reduce dropout rates (Mannarini et al., 2023).

Compared to other offenders, those convicted of crimes of passion showed noticeably higher levels of impulsivity in attention and nonplanning

subscales (BIS- 11). Additionally, the high borderline personality disorder (BPD) trait group exhibited significantly higher scores on all subscales of impulsivity (Jin et al., 2023). Among the psychological traits that predict an offender's status (recidivism or not) among prisoners in correctional treatment facilities are emotional regulation and impulsivity; moreover, recidivists are more likely to be inmates with motor impulsiveness than non-recidivists (Nweke et al., 2023). Some key points regarding impulsivity research and aging are made by Ray and Jones (2023): the majority of studies look at offending among young adults (age 25) and adolescents, with very few studies actually taking place during this time. They assert that no research has looked at the possibility of an association between impulsive changes and altered criminal behaviour after the age of 35. Analysis of a population of Czech offenders revealed that the prison population sample had significantly higher levels of impulsivity, especially when it came to motor and non- planning impulsivity, emotion-based rash action and sensation seeking, and impulsivity towards money, social interactions, and physical pleasures (Příhodová et al., 2023). According to the research findings, recidivists had a higher lifetime substance use rate than non-recidivists. Substance users are more common in the families and social circles of repeat offenders than they are in those of first-time offenders, according to an analysis of data regarding the convicts' drug use characteristics. According to the study's findings, the recidivism group of prisoners exhibited higher levels of impulsivity than the non- recidivism group. Conversely, Molina-Coloma et.al. (2022) did not corroborate this finding, which indicated that recidivists with criminal records did not exhibit impulsivity. The study conducted in 2023 by Mehmood et al. on a group of sentenced inmates revealed that impulsivity mediated the relationship between psychopathy and illegal thought patterns such as entitlement, power orientation, criminal rationalization, and cold-heartedness. The study came to the conclusion that offenders' impulsivity and psychopathic tendencies influenced their main thought processes, which included controlling their surroundings, creating excuses to hide the true purpose of their crimes, feeling above the law, and showing no concern for other people. In order to help prevent crime in the future, this mediation model outlines an explanatory mechanism for dispositional and cognitive process assessment. A longitudinal study (Farrington & Aguilar-

Carceles, 2023) that examined the life course of male impulsive individuals from the age of 8 to 65 revealed that the most significant factors associated with impulsiveness at the age of 8–10 were those related to parental, family, socioeconomic, academic, and behavioural factors during childhood. Between the ages of 12 and 14, impulsive males showed high levels of daring, low IQ, truancy, and antisocial personality. In the age range of 16 to 18, it was particularly important to have no exam results and a low socioeconomic status job; in the age range of 32 to 48, impulsive males were more likely to have poor employment, convictions (particularly related to violence), anti-establishment thoughts, and an unsuccessful life. Aggression and impulsivity were not associated with immediate criminal outcomes in a sample of sexual offences, but they seem to serve as heuristic tools that facilitate criminal decision-making without getting in the way of intent (Pedneault et al., 2024). Executive function appears to be a key component of impulsive criminal behaviour (Türel et al., 2024). The non-adherent group scored higher than the adherent group in the study, which revealed statistically significant differences in impulsivity in the dimensions of negative urgency, sensation seeking, and positive urgency (López- Torrecillas et al., 2021). In order to further our understanding of developmental sequences including hyperactivity, impulsivity, poor attention, offending, and later life outcomes, the article concludes with recommendations for new longitudinal research and new randomized experiments to assess the efficacy of various intervention programs (Aguilar-Cárceles & Farrington, 2020).

The most reliable and frequently reported factor linked to impulsivity in forensic populations, according to the results of a meta-analysis, is alcohol and/or substance abuse, suggesting that there is a strong bidirectional relationship between impulsive behavior and drug and alcohol use (Alford et al., 2020). Alcorn et al. (2013) offers important insights into the intricate interactions between antisocial personality disorder (ASPD), substance use disorder (SUD), aggression, and impulsivity. This research builds on previous studies that have looked at these relationships. The co- occurrence of ASPD and SUD was examined in a group with fewer men, and the results showed a link between the two disorders and higher levels of impulsivity and aggression.

These results highlight the complex interrelationships among impulsive

behaviors, substance abuse, and antisocial traits, emphasizing the combined influence of these co-occurring conditions on people's behavioral tendencies.

Alford et al. (2020), have looked through two studies and found a significant correlation between the incidence of head injuries and an increase in impulsive behavior. These neurobehavioural alterations can give rise to rule-breaking behaviour with relative ease. Notably, forensic prisoners exhibited a higher propensity to suffer head injuries than the normal population (Alford et al., 2020). Although contradictory new studies suggest that early trauma negatively affects the brain and cognitive systems that are in charge of inhibitory control (Marshall et al., 2016), the review's conclusions regarding the relationship between early trauma and high impulsivity were not entirely consistent (Alford et al., 2020).

Since impulsive aggression is the main type of aggression linked to antisocial personality disorder in offenders, premeditated aggression was found to be more prevalent in patients with increased levels of psychopathic traits than impulsive aggression. Despite the high impulsivity and high frequency of substance use disorder in antisocial personality disorder inmates, these two characteristics did not predict the type of aggression (Azevedo et al., 2020). The three dimensions of impulsivity—motor, nonplanning, and attentional—as well as cravings and mental health issues, were all positively correlated with impulsive antisocial behavior. The association between impulsive antisocial behaviour, cravings, and mental health issues was mediated by attentional impulsivity. Fearless dominance was linked to reduced impulsivity, cravings, and mental health issues in terms of attention and nonplanning (Reichl et al., 2023). Motor impulsivity was higher among homicide offenders, but non-planning was higher among non-homicide offenders, according to a bivariate analysis of a Nigerian sample; however, this relationship was influenced by demographic variables. Given that motor impulsivity significantly divided the groups, it could be a valuable metric to include in any risk assessment battery when homicidal behaviors are suspected (Armiya'u et al., 2020). One of the studies suggests that self-rated attentional impulsivity, rather than motor or non-planning impulsivity, may be linked to compulsive sexual behavior. Although a significant

amount of the variation in compulsive sexuality is explained by factors other than the measures used in this study, hypothesised (attentional) impulsivity was positively associated with the degree of compulsive sexual behaviour even after adjusting for ADHD (Savard et al., 2021).

Patients with schizophrenia who were involved in criminal activity were found to have higher scores on the BIS-11 inability to plan, physical aggression, and total aggression measures than those who were not (Kaya et al., 2023).

People were found to be generally similar to Saramago et al.'s (2019) study that examined the predictive power of moral rationale with impulsivity on offending specialization or versatility. However, those convicted of rape tended to be more versatile than those who molested children outside of their family. Whereas impulsivity was largely not statistically significant, moral reasoning was the best predictor of offending specialization or versatility. The efficacy of the 'Intensive Course Programme on Sexual Violence' in reducing impulsivity and anger expression—risk factors for sexual crime—in transforming distorted sexual perceptions of sexual violence offenders into positive messages and enhancing self- esteem among sex offenders has been confirmed (Gang & Kwon, 2021).

Further investigating the connection between impulsivity and dark personality traits, the results of research (Malesza & Ostaszewski, 2016 and Malesza & Kalinowski, 2019) point to a more complex understanding of the interaction between these constructs. In general, the amalgamation of varied research approaches and viewpoints when examining the correlation between dark personality traits and impulsivity enhances our comprehension of the fundamental mechanisms propelling impulsive actions in people with particular personality types. The study by Kiire et al. (2020) provides further insights into the specific associations between psychopathy, Machiavellianism, and various impulsive traits. The strong correlation identified between psychopathy and a range of impulsive tendencies, including urgency, lack of premeditation, lack of perseverance, sensation seeking, and positive urgency as outlined in the UPPS-P model, highlights the multifaceted nature of psychopathy and its implications for impulsive behaviors. By contrast, the results point to a pattern of impulsive traits associated with this specific dark personality trait, suggesting

that Machiavellianism leans toward perseverance and premeditation. The subtle differences in impulsive tendencies between psychopathy and Machiavellianism highlight the intricacy of dark personality theories and their distinct effects on people's behavior patterns.

Alcorn et al. (2013) offers important insights into the intricate interactions between antisocial personality disorder (ASPD), substance use disorder (SUD), aggression, and impulsivity. This research builds on previous studies that have looked at these relationships. The co-occurrence of ASPD and SUD was examined in a group with fewer men, and the results showed a link between the two disorders and higher levels of impulsivity and aggression. These results highlight the complex interrelationships among impulsive behaviors, substance abuse, and antisocial traits, emphasizing the combined influence of these co-occurring conditions on people's behavioral tendencies.

Scientists have also defined impulsivity as the lack of self-control and the willingness to engage in actions without considering the repercussions. However, there is ongoing discussion about the definition of this concept in the clinical and research domains, with no single, accepted definition. Its practical application in clinical and forensic practice may ultimately be limited by this lack of clarity, which can lead to hazy conclusions, unclear relationships, and inconsistent findings across studies. Although emotional circumstances are known to amplify impulsivity, these emotional aspects are frequently left out of traditional impulsivity measures. This oversight may impede the development of successful interventions and result in an inadequate understanding of impulsive behavior. Researchers have begun employing experimental psychological tasks that include emotional stimuli in order to address this limitation and provide a more thorough assessment of impulsivity. Because these tasks incorporate emotional contingencies into assessments, they can provide valuable insights into impulsive tendencies in a range of contexts, including criminal justice settings. These tasks also have the added benefit of being less prone to socially acceptable answers, which makes them more accurate indicators of impulsivity. Assessments can be successfully conducted with a variety of populations because they are suitable for individuals with varying literacy levels. In conclusion, the addition of emotional stimuli to impulsivity- testing experimental tasks can enhance our understanding of impulsive behavior and its potential

applications in the clinical and forensic psychology domains. With the help of these cutting-edge techniques, academics and professionals can better understand impulsivity and create interventions that are more specifically tailored to the needs of impulsive behavior.

1.5. Measurements of malevolent creativity

Aiming to promote the welfare of people and society as a whole, psychology's measurement of malevolent creativity serves a number of purposes, including risk assessment, intervention development, policy formulation, and ethical considerations. A targeted intervention and preventative measures can be implemented by identifying individuals who are at risk of engaging in harmful behaviours and understanding the factors that contribute to malevolent creativity. When it comes to risk assessment and management in a variety of settings, such as organisational psychology and forensic psychology, measuring malevolent creativity can help anticipate future behaviour, such as a tendency towards deceit, aggression, or exploitation. Studies conducted on malevolent creativity can offer valuable perspectives for formulating laws, rules, and moral principles that strive to curtail detrimental conduct and safeguard people and the community from possible dangers. Psychologists can design more efficient evaluation instruments and interventions that target particular risk factors and behaviors connected to malevolent creativity by knowing the cognitive and personality processes that underlie this phenomenon. Measuring malevolent creativity highlights the significance of taking potential harm into account and ensuring the well-being of individuals and society, which in turn promotes ethical awareness and ethical decision-making among researchers, practitioners, and policymakers.

The initial study on MC was descriptive in nature, utilising interviews with prisoners to report on the various manifestations of malignant creativity. They have penned in- depth descriptions of the ways in which prisoners commit anti-social behaviour to evade punishment. Eisenman (2008) elegantly and thoroughly introduced the concept of malevolent personality disorder in the literature by utilizing observational techniques in conjunction with nine case studies that provide qualitative insights into real cases of malevolent behavior.

This allowed researchers to identify the characteristics and patterns linked to such behaviour. These case studies serve as a brilliant example of MC. Eisenmann noted that the degree of malevolent creativity displayed by convicted criminals in the earlier studies was lower than in the most recent one, in contrast to later research (1992, 1999). Clark and James (1999) used problem-solving exercises that involved the subjects solving a negative problem in order to gauge their MC. The pattern of problem-solving tasks used in the application of the consensual assessment test to measure creativity meant that expert evaluation was required to make an accurate assessment of the creative products that the participants produced. This approach, which places a strong focus on measuring the results of malevolent creativity products rather than the malicious creative thought process, can be considered the first on the subject to measure the construct itself. By asking participants to list as many uses as they could for a brick and pencil, Lee and Dow (2011) used a divergent thinking test to measure malevolent creativity. Harris & Reiter- Palmon (2015) improved these two methods by using the Positivity versus Negativity Solution Evaluation Scale to rate the subjects' originality and negativity in their responses. Harris et al. added the negative and unique feature to the evaluation standard to address the measurement issues found in the studies by Clark & James (1999) and Lee & Dow (2011). Later on, Lee and Dow (2011) used the divergent reasoning test to measure malicious creativity. They did not use descriptive measurements, such as interviews, but rather qualitative measurements. Two commonplace items—the brick and the pencil—were given the task of finding as many applications as they could by research participants. Each response was coded by raters for the presence of malicious intent (i.e., whether the subject's use of the object could harm others), and fluency (the number of responses) was also measured (Guilford, 1967). The responses were coded by two different individuals, ensuring the psychometric reliability of the measurement (Silvia et al., 2008). Once the raters evaluated the scores, the number of participants' answers were divided by the degree of fluidity in this case, which gave the malevolence score (e.g., Dixon, 1979; Hocevar & Michael, 1979; Charles & Runco, 2001). Runco (2010), however, has presented an extremely compelling argument that the emergence of malevolent creative behaviour is not a necessary consequence of malevolent creation.

The MC potential problem-task is an open-ended scenario created by Harris et al. (2013) to assess participants' malicious creative potential. The scenario describes the following situation: You and your roommate Li occupy a dormitory. You normally go to bed early and have light sleep, making it difficult to go back asleep once up.

Unfortunately, Li frequently reappears late at night, upsetting your sleep and causing insomnia, which reduces your energy levels and capacity to study throughout the day. Despite several discussions with Li about your issues, he continues to overlook them. Faced with this continuous problem, you are faced with devising strategies to revenge against Li without his noticing. To evaluate malevolence and originality, scores are produced as indicators of performance-based malicious creativity (MC) potential. The Consensual Assessment Technique (CAT), created by Kaufman et al. (2009) and detailed by Amabile (1983), is used to assess the originality and malevolence of the ideas generated in response to the scenario. Three male graduate raters aged 25, 26, and 27 each have over two years of experience judging originality. The raters first assess the malevolence of each suggested notion using a 5-point Likert scale, with 1 indicating "not at all malevolent" and 5 indicating "very malevolent." A reaction evaluated as "not at all malevolent" may be: "I communicate with Li again and hope he can keep quiet," whereas a response rated as "very malevolent" might be: "I put nails or razors on Li's bed." The interrater reliability for malevolence scoring was determined to be ICC = 0.87, showing a high degree of agreement among raters. To reduce any bias in the scores, the originality of the ideas was evaluated one month later. The originality of ideas was also assessed on a 5-point Likert scale, with 1 being "not at all original" and 5 representing "very original." A "not at all original" reaction may be: "I get up early and wake Li," whereas a "very original" solution might be: "I replace Li's shampoo with hair removal cream." The inter-rater reliability for originality was ICC = 0.74, indicating a satisfactory degree of agreement among raters. The overall score for malicious creativity potential is computed by adding the number of concepts with an average malevolence and originality value of ≥ 3, indicating that the ideas are significantly malevolent or innovative.

This methodology has been used in prior investigations, including those

done by Perchtold-Stefan et al. (2022b), which support its usefulness in measuring malevolent innovation. The findings of this examination not only help to understand individual differences in creative expression, but they also shed light on the darker sides of creativity that might emerge in reaction to interpersonal problems.

1.5.1. Malevolent Creativity Behaviour Scale (MCBS)

Hao et al. (2016) developed the Malevolent Creativity Behaviour Scale (MCBS), a key instrument for assessing malevolent creativity. The 13 items in the questionnaire can be divided into three subscales: lying (Cronbach α=.76), playing tricks (Cronbach α=.61), and hurting others (Cronbach α=.0.80). The participants mark their answers with the possibility of marking their answers with 5 responses, with 0 being not at all and 4 indicating very often. Reiter-Palmon (2018) criticizes that the scale items are not as useful as they could be in measuring malevolent creativity because they only partially focus on the novelty of hurting others. Additionally, the questionnaire's authors acknowledged that the playing tricks subscale's reliability was marginal, which they explained by speculating that the subscale's small item count could be the root of the problem. Again, though, the authors stated that the questionnaire has not yet been used with a prison population, despite their belief that it would be crucial to apply the content the questionnaire measures to a population for which it would be truly relevant (Hao et al., 2016). Another critique of the (MCBS) is that it only measures three behaviours—lying, deceit, and harming others—and ignores other important dimensions of malevolent creative ideation, such as sabotage, deception, retaliation, etc.

In an unpublished manuscript, Cropley and colleagues carried out a thorough analysis of the MBCS with the goal of highlighting specific shortcomings in the measure's validity and reliability. Three major problems with the questionnaire were found by them during their investigation. Scores from the current MBCS items, like the one measuring revenge ideation ("How often do you think of revenge ideas when you are treated unfairly?"), mainly concentrate on how frequently these thoughts occur, with options ranging from "never" to

"always." As a result, characteristics of the respondent's responses like originality, efficacy, or inventiveness are missed by the present scoring system.

The manuscript by Cropley and colleagues highlights the significance of resolving these issues in order to improve the MCBS's relevance and accuracy when measuring malevolent creativity. In terms of the MCBS validity, every subscale showed a different level of variance within the construct. The subscales that contributed to the greatest variance were hurting others (22.58%), lying (18.83%), and playing tricks (15.1%). These findings highlight the distribution of variance across the various MCBS dimensions. Figure 3 from Hao et al.'s factor analysis (2016, p. 5) illustrates these findings. The MCBS is made up of three different factors, according to the factor analysis: lying, hurting other people, and deception.

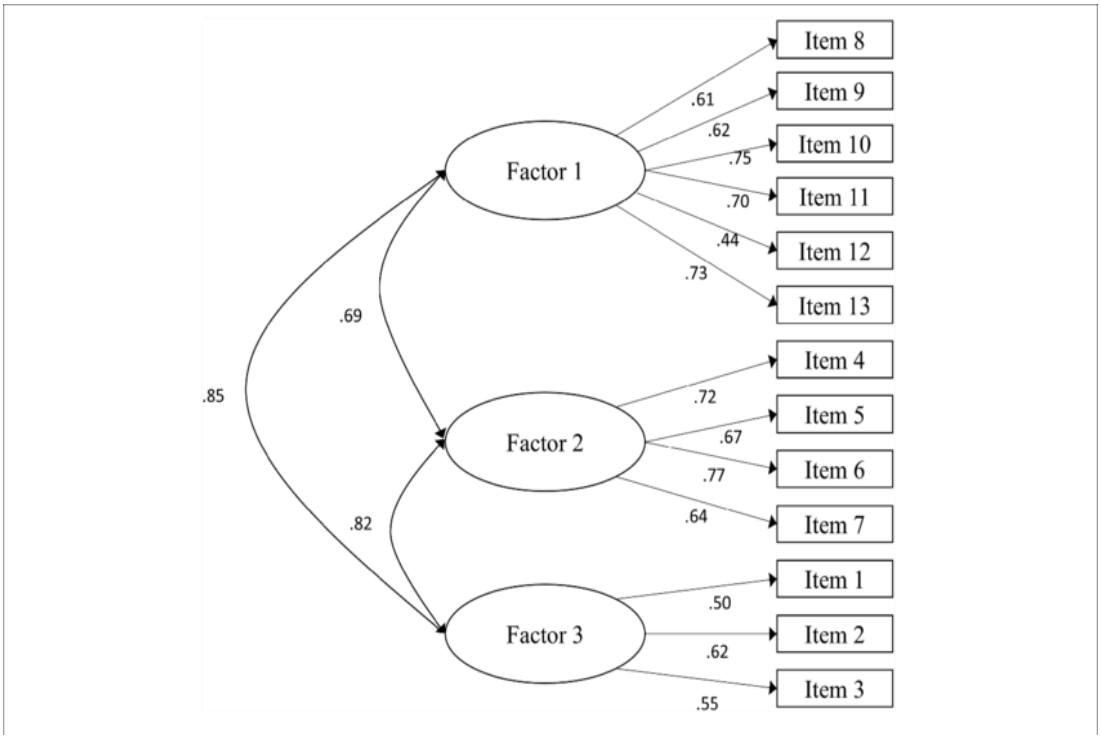


FIGURE 3 The path diagram of standardized estimates of the Malevolent Creativity Behavior Scale (MCBS)

When taken as a whole, these factors explain 55.88% of the variation in MCBS scores, indicating how crucial these dimensions are for spotting creative deception. The presence of these three factors was validated by the rotated component matrix obtained from the exploratory factor analysis (EFA), and all 13 items were kept in the scale to preserve the measurement tool's comprehensiveness and integrity. These findings highlight the complexity of

malevolent creativity as represented by the MCBS and offer important new understandings of the scale's underlying structure.

1.5.2. The Malevolent Creativity Test (MCT)

The Malevolent Creativity Test (MCT), developed by Perchtold-Stefan and colleagues, is a novel tool for getting participants to respond creatively in a malevolent way to unfair scenarios (2020ab). Open-ended questions about unfair circumstances are used by the MCT to elicit ideas from respondents about ways to exact revenge or teach the offender a lesson. The guidelines place a strong emphasis on coming up with a tonne of original ideas in order to fully represent the range of evil creativity that exists within each person.

Several important factors must be taken into account when analyzing MCT results in order to guarantee a thorough assessment of the responses. First, to determine the degree of participants' malicious ideation, the total number of ideas they came up with in each scenario is totaled. Furthermore, the level of malevolence demonstrated in the answers is evaluated by two different people, offering a complex viewpoint on the degree of malicious intent behind the concepts. Additionally, two independent raters are entrusted with evaluating each idea's novelty and ingenuity in order to determine the originality and creativity of the generated responses. The use of a dual-rating system increases the reliability of the evaluation procedure and makes it easier to record the different ways in which participants demonstrate malevolent creativity. Through the application of these rigorous analytical techniques, the development of a validated measurement that assesses the cognitive creativity process via the MCT developed by Perchtold-Stefan et al. illuminated the complex interconnections between originality, malice, and ideational fluency in reaction to unjust situations.

Examples from the Malevolent Creativity Test (see Perchtold-Stefan et al., 2020a) are given below:

a.) Put yourself in the following situation and try to vividly imagine that it is happening to you. You apply for a new job position in your company that comes with substantially more money and benefits, and that really interests you.

b.) By chance, you find out that an unpleasant colleague of yours also wants to apply for the position. This colleague has told lies about you in the past that have already cost you a promotion. Now you want to stop him from taking another job from you. How could you sabotage this colleague?

The first scenario in the Malevolent Creativity Test (MCT) requires participants to come up with plans on how to prevent their colleague from accomplishing their objectives. The goal is to produce a diverse range of responses that are incredibly creative in addition to being extremely malicious. Participants are encouraged to delve into the depths of their evil imagination by coming up with schemes that are not only inventive but also harmful. The focus is on how cleverly and creatively the participant can devise ways to obstruct their colleague's advancement, demonstrating how cunning and inventive their responses can be.

c.) You have been flirting with someone in your circle of friends for a while now. When you want to finally ask them on a date, you find out that they already have plans with another person. This person has a very bad reputation and already ruined one of your relationships in the past. You want to keep this person from interfering with your relationships again. How could you sabotage this person?

The second scenario involves giving participants a similar task with an emphasis on exacting revenge on a particular target person. In this instance, the requirements are the same as in the prior task, in which participants are urged to come up with a plethora of answers intended to exact retribution on the target person. The intention is to elicit a wide variety of retaliation tactics that demonstrate the participant's capacity for both inventiveness and vengeance. The MCT attempts to capture the complex interplay between malice, creativity, and the desire for retribution in response to perceived injustices by asking participants to come up with creative and evil ways to avenge the target individual.

The forth figure outlines the methodology for the assessment of the Maladaptive Creative Test (Perchtold-Stefan et al., 2020a, p. 714):

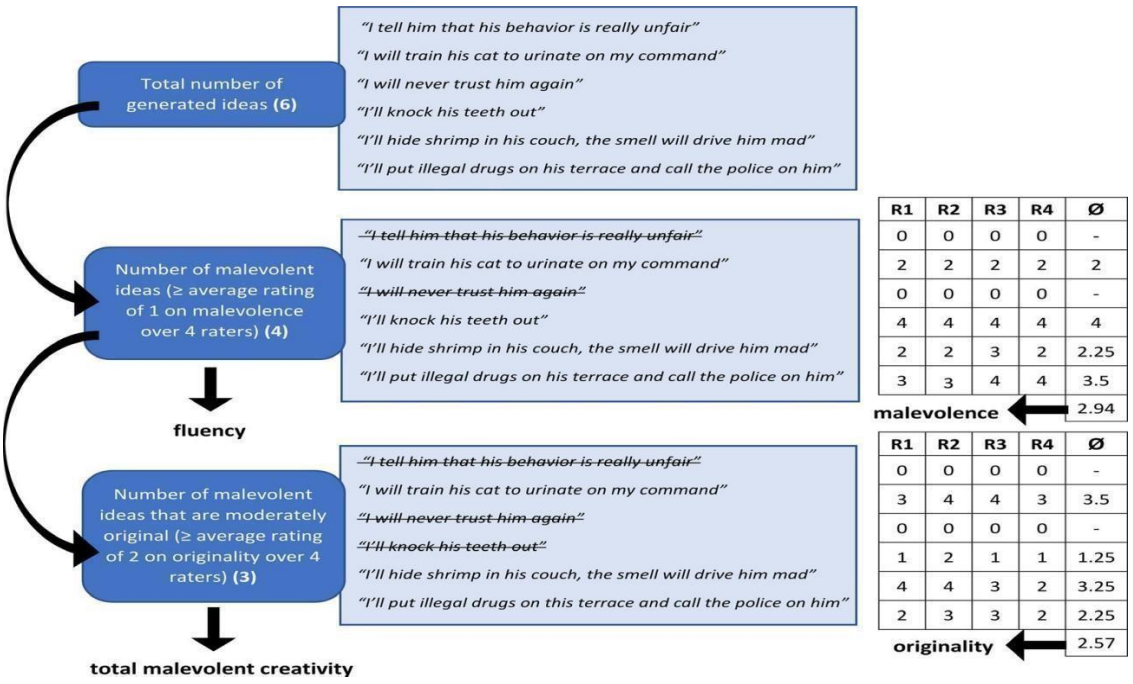


FIGURE 4. Exemplary scoring approach for the MCT item 1 (neighbour).

The Malevolent Creativity Test (MCT) was designed as a tool to evaluate malevolent creativity by posing a variety of divergent thinking-demanding scenarios to participants. These scenarios are deliberately designed to provoke reactions that demonstrate the person's ability to come up with malevolent and inventive ideas in reaction to unfair or unscrupulous situations. Through the use of divergent thinking tasks, the MCT seeks to unlock the participant's capacity for expansive thought and the generation of original and non-conventional responses to given scenarios. When coming up with malicious ideas, the MCT encourages participants to think outside the box, examine different viewpoints, and contemplate alternate strategies. This encourages participants to engage in divergent thinking. The test gives participants an insight into their cognitive flexibility, originality, and tendency towards malevolent ideation by pushing them to come up with as many unique and varied responses as they can. Through the use of divergent thinking tasks within the MCT, researchers can gain a deeper understanding of how individuals conceptualise and express malevolent creativity in response to specific provocations. A unique and nuanced view of the relationship between creativity, malice, and cognitive flexibility is provided by the MCT, which measures divergent thinking in the context of malicious ideation. This helps to illuminate

the intricate nature of malevolent creativity and the cognitive processes that underlie it.

1.5.3. Malevolent divergent thinking test (MDT)

Others have developed and validated another test in order to evaluate only revenge ideation, the **malevolent divergent thinking test (MDT).** In this test, participants had three minutes to come up with as many inventive ways as possible to exact revenge on a heartless roommate who had planned a party just before a crucial exam. After recording their answers, participants chose the most inventive, malevolent acts of retaliation they could think of (Batey et al., 2022). Three trained raters independently evaluated the selected responses for malevolent creativity. The responses can be provided in five different response types, with 1 representing the lowest malevolent creativity and 5 representing the greatest. The MDT responses offered by the participants were also evaluated for fluency. Originality and malevolence scores are computed as measures of MC potential based on performance. The Consensual Assessment Technique was used to assess the originality and malevolence of every idea put forth for the MC potential problem (CAT; Amabile, 1983; Kaufman et al., 2009).

To evaluate creative performance, a real-world divergent thinking task was employed in the study of Kapoor and Kaufman (2022a) and Kapoor et al. (2024). They used two scenarios that were randomly presented to the participants: a.) Wedding:

“Your close friend’s wedding is coming up. Despite being in town, you do not want to attend the wedding,” and (b) Event: “You really want to attend an event, but the tickets are sold out.” The instructions were paired with each scenario at random, creating a 2 (situation) x 2 (instruction) mixed design. The ethical instructions were to consider as many moral, legal, and ethical options as possible, along with creative ways to handle the situations. The unethical instructions were to consider as many immoral, illegal, and unethical options as possible. First, the number of responses generated and the degree of flexibility (i.e., whether the responses fit into different categories and were determined and labeled by two raters) were assessed for each response. Responses were

then scored on moral valence (the intended moral valence in the responses; 1 = evil, 2 = sinful, 3 = self- interested, ambiguous = 4, neutral = 5, noble = 6), and creativity (measured according to how novel, useful, and appropriate the responses are; 1 = not at all creative to 6 = very creative). Virtue caveats include: deception (whether the response involved lying, cheating, or withholding information = 1 or not = 0), goal- directedness (disregarding valence, whether the response would meet the goal rated as 1 = Very Unlikely to 4 = Very Likely), and deception (whether the participant explicitly refused to do something unethical = 1 or not = 0). Divergent thinking tests are used by experts to gauge malevolent creativity. The goal of these evaluations is to pinpoint the various ways that individuals can engage in evil activities. Researchers can evaluate various aspects of malevolent creativity using a range of assessments. These include the ability to come up with unique and unusual ideas for malicious purposes, the willingness to act unethically, and the capacity to defend or justify malicious actions. Additionally, researchers can investigate the intricacy of malevolent creativity and its underlying cognitive processes by employing various divergent thinking tests. For instance, some exams might concentrate on coming up with ideas, while others might evaluate your capacity for flexible and adaptable thinking in morally dubious circumstances. Researchers can obtain a more thorough grasp of the complex nature of malevolent creativity by utilizing a variety of tests.

In general, the utilization of diverse divergent thinking assessments offers scholars a more intricate and thorough assessment of malevolent creativity, assisting in the illumination of the mental processes and personal distinctions that underlie detrimental and immoral actions.

1.5.4. The Cyber Malevolent Creative Behaviour Scale (CMCBS)

After rigorously analysing the extensive body of research on harmful creative measures, Liu et.al. (2024) identified a significant deficit in current instruments for the unique context of cyberbullying. Their careful examination indicated that, while many measures had been established to assess malicious creativity in general, few addressed the specific characteristics of

cyberbullying—a significant issue in the digital age that requires immediate action. Recognising the complexities of cyberbullying, the authors opted to create a new measure designed exclusively for studying this phenomena.

This unique instrument aims to investigate several aspects of cyberbullying, including as the roles of anonymity, online disinhibition, and the viral nature of digital communications, which can compound the impact of malevolent acts. Unlike face-to-face contacts, cyberbullying frequently allows for more distance and anonymity, which can lead to a lack of accountability and an increase in violent behaviour. This distinct setting necessitates an instrument that captures these traits while also providing deeper insights into the elements influencing online bullying behaviours. By combining variables such as victimisation dynamics, perpetrator traits, and the impact of environment in influencing online interactions, the researchers want to create a tool that improves understanding of how malicious creativity occurs in cyberbullying.

They developed the instrument based on the findings of de Saint Laurent et al. (2020), who investigated the link between online social media and harmful creativity, revealing fresh insights into the mechanisms that drive creativity in the digital era. This crucial study looked precisely at the effect of malevolent linguistic inventiveness in the establishment and maintenance of anti-immigrant networks on Twitter. By focussing on this setting, the study revealed how certain internet users generate negative narratives and toxic language that impact immigrants and refugees. The rise of these anti-immigrant networks on social media platforms is a worrying example of malicious innovation, in which individuals find both a venue to assemble and an audience that shares their ideas. As Janis (1982) describes, these online spaces create groupthink, resulting in the hazardous reinforcement of common prejudices and stereotypes against marginalised groups.Furthermore, the study focused on the methods by which internet users deploy evil ingenuity to start and carry out digital attacks, notably against immigrant groups. Through their investigation, de Saint Laurent et al. (2020) demonstrated how social media acts as a catalyst for evil creativity, allowing users to quickly mobilise and promote their harmful views. Liu et.al. (2024) define online malevolent creativity as multidimensional, embracing a wide spectrum of destructive behaviours.

These types of MC appear in a variety of common scenarios, most notably organised group attacks—such as the establishment of anti-immigrant communities on platforms such as Twitter—and large-scale fan battles marked by abuse and animosity. Importantly, harmful online creativity is not limited to large-scale collective operations; it also spreads among individuals. For example, internet users can exploit online technology to commit fraud by impersonating others, resulting in identity theft or financial frauds. This deceitful use of technology can have serious implications for victims since their personal information is stolen or exploited. This study is mostly based on Sincek's 2021 Cyberviolence Scale, which identifies five important characteristics of cyberviolence: shame, information manipulation, hate speech, technological abuse, and information sharing. Each of these aspects describes various ways in which people might cause harm in the digital era, emphasising the complexities of online violence. One important note in this regard is that existing assessment instruments, such as the Malevolent Creativity Behaviour Scale (MCBS), are mostly concerned with offline behaviours. These include activities such as injuring others, lying, and taunting, which, while significant, may not fully account for the distinct manifestations of malicious creativity that occur in online spaces. The digital ecosystem provides several chances for creativity that might be exploited for negative reasons, needing a more complete approach to understanding these behaviours.

Certain malevolent creative activities are uniquely connected with the online sphere, including hacking assaults, the propagation of computer viruses, unauthorised access and manipulation of user accounts, and the development and viral spread of harmful memes. These behaviours demonstrate how digital technologies may be used creatively for evil purposes, which differs greatly from offline demonstrations of malevolence. For example, whereas teasing someone in person may include outright insulting them, creating a negative meme that becomes viral can have far-reaching and often unintended ramifications, exacerbating the impact of the initial offence.

The Cyber Malevolent Creative Behaviour Scale (CMCBS) was developed by combining the existing Malevolent Creative Behaviour Scale (Hao et al., 2016) and Cyberviolence Scale (Sincek, 2021). They began by

developing 33 items that embody the idea of cyber malevolent creative behaviour based on a comprehensive examination of the relevant literature.

The authors then engaged six renowned creative experts to assess the 33 elements and identify any redundancy. Their input suggested that eight things were redundant and should be eliminated. As a consequence, the CMCBS was finalised initially with 25 items, each with a 5-point Likert scale. Respondents are asked to pick a number representing the frequency of each behaviour in their everyday life, with possibilities ranging from 0 (never) to 4 (always). To guarantee clear and accurate replies, all items were written and presented in Chinese. The scale has remained same, with 11 items divided into three categories: cybershaming (4 items), technological misuse (4 items), and information manipulation (4 items).

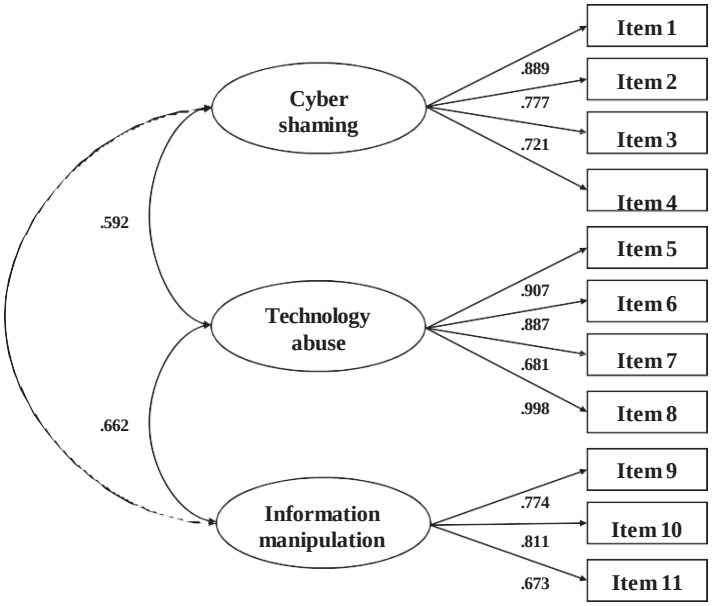


Figure 5 The path diagram of standardized estimates of the Cyber Malevolent Creativity Behavior Scale (CMCBS).

These three factors explained 64.37% of the variance in the CMCBS scores. The scale's overall score has an internal consistency coefficient (α) of 0.749 based on its 11 items. This number was determined to be 0.681 for cybershaming, 0.799 for technological abuse, and 0.644 for information manipulation. Because the alpha coefficient surpasses the essential threshold of 0.6, the reliability test findings are judged trustworthy, suggesting that the scale is appropriate for research use.

The overall score of the Cyber Malevolent Creative Behaviour Scale (CMCBS) showed a substantial positive association with the total scores of each associated questionnaire, with correlation values ranging from 0.30 to 0.50. This implies that cyber malevolent creativity has a modest relationship with a number of characteristics, including aggressiveness, malevolent creativity, and cyberbullying. These modest connection coefficients suggest that those with greater levels of cyber malevolent inventiveness are also more likely to be aggressive and engage in cyberbullying behaviours. This research emphasises the interconnectedness of these categories, implying that when directed towards evil purposes, creativity may materialise as hostile and dangerous online behaviour.

For example, a person with high CMCBS scores may not only participate in harmful activities against others, but they may also demonstrate aggressive attitudes or behaviours associated with cyberbullying, such as harassment or intimidation. This emphasises the need of confronting malevolent creativity within the context of larger behavioural trends. Recognising that persons who participate in cyber malicious creative behaviours are more likely to exhibit violent tendencies enables interventions in educational and preventive programs to tackle both creativity and aggressiveness.

In conclusion, Liu et.al.'s (2024) effort to develop a different measure for cyberbullying is a timely and significant response to the changing world of digital contacts. By emphasising on the complexity of malevolent innovation in cyberbullying, their study contributes significantly to a better understanding of the problem, paving the way for future research and proactive approaches to combat online harassment. As cyberbullying continues to be a problem for individuals and communities alike, their work highlights the importance of establishing research approaches that can effectively address the complexities of current digital life.

2. Pilot study - Personality Traits as Predictors of Malevolent Creative Ideation in Offenders

2.1. METHOD

2.1.1. Procedure

Our pilot study has obtained ethical permission from the Babeş-Bolyai University of Cluj-Napoca and from the Scientific Council, which has certified the research to be conducted in prison settings. It was assigned the registration number 4420/20.03.2018. The research was carried out from October 14, 2019 to February 28, 2020.

Professor David Cropley can be considered as a second coordonator of the design of the pilot a study helping us to decide variables and methodology for this reseach. Then after our data was collected, he helped us in the statistical processing of the data.

The study's participation criteria involved notifying the research coordinator and informing individuals about the research through an announcement on the section's notice board. The research involved everyone who indicated that they would like to participate.

After the inmates freely expressed their willingness to participate, the research coordinator created nominal tables of the inmates, dividing them into groups of no more than 15–18 people by days and hours, depending on the work schedule, the number of subjects, and the capacity of the class on the detention wards. The participants were informed about the confidentiality of their identity and personal data, which were not used in the research, as well as the benefits of participating in this study, which included receiving three credits under the current legislation for involvement in socio- educational approaches.

Then they were told about the possible disadvantages of completing the psychological instruments, such as exhaustion and needing to maintain their concentration for an extended period of time. All individuals who read, acknowledged, and signed the acceptance form, while also providing informed consent, were included in the study. Participants received the psychological instruments in paper and pencil format, along with general instructions on

how to complete them. Sufficient time was allocated for participants to complete the scales in a tranquil environment without any interruptions or pressure due to time constraints.

No rejections occurred by the participants during the completion of the instruments, indicating that all individuals included in the research successfully completed the tests related to malevolent creativity. The research coordinator supervised the questionnaire completion process and ensured that all confidentiality and ethical standards were upheld during the study. Following the questionnaire completion and verification of their accuracy, the participants who took part in the study earned the three credits they were owed as part of the decision to credit social reintegration efforts. We used IBM SPSS statistics software version 22 to process data and conduct statistical analyses as a result of instrument applications. For the obtained data, we used two types of analyses: descriptive and inferential.

2.1.2. Participants

The scales for this study were completed entirely by 130 male convicts imprisoned at the Oradea Maximum Security Penitentiary. These criminals have committed a variety of crimes, ranging from traffic offences or financial fraud to misdemeanours or even major felonies like murder, robbery, arson, rape, and so forth, which are regarded as the most serious types of crimes in the country.

The study included a diverse range of participants, with reported ages spanning from 21 to 66 years. The average age of the male offenders involved in the research was calculated to be 37.2 years. The educational level of the offenders was the highest for those who finalised high school (30.8%), the percentage was lower for those who passed elementary school (16.9%), and the lowest percentage was found in the group that graduated with a with a higher educational level. When considering the nature of the offences, our analysis revealed that nearly half (40%) of the participants had committed non-violent infractions, while the remaining 60% had been involved in violent criminal activities.

Below, in Table 1, we present the other demographic details about the inmate population.

Table 1: Criminal conviction data for the sample[1]

Variable	Category	n	%
First sentenced at age	<16 Years - Group 1	15	11.6
	16 to 20 Years - Group 2	29	22.5
	>20 Years - Group 3	85	65.9
Number of Convictions	1 Sentence - Group 1	47	36.2
	2 or 3 Sentences - Group 2	34	26.2
	4 or 5 Sencences - Group 3	16	12.3
	>5 Sentences - Group 4	33	25.4
Type of Crime	Non-Violent	52	40.0
	Violent	78	60.0

2.1.3. Measures

The Malevolent Creativity Behaviour Scale (MCBS; Hao et al., 2016) was used to assess malevolent creative ideation, which was translated into Romanian by us. This scale comprises three subscales, each consisting of 13 items that measure behaviours such as malevolently lying, hurting others, and playing tricks. These subscales, which have Cronbach's α values of 0.80 for harming others, 0.76 for lying, and 0.61 for playing tricks, are considered to have good internal consistency. Participants' responses to the different types of malevolent creativity ideation were recorded on a 5 type scale, where 0 indicated "never" and 4 indicated "usually."

The authors took great care when creating the demographic questionnaire

[1] The data table 1 was published at the article cited “Szabó, E., Körmendi, A., Kurucz, G., Cropley, D., Olajos, T., & Pataky, N. (2022, July 21). Personality Traits as Predictors of Malevolent Creative Ideation in Offenders. *Behavioral Sciences*, *12*(7), 242. https://doi.org/10.3390/bs12070242”

in order to collect detailed and particular information about the prisoners, such as their age, gender, marital status, educational background, criminal history, history of substance abuse, and other pertinent demographic information. This questionnaire serves as a valuable tool for evaluating the general data and characteristics of the inmate population.

The Dirty Dozen, developed by Jonason and Webster in 2010, is a valuable tool for assessing subclinical traits such as Machiavellianism, psychopathy, and narcissism. This scale comprises 12 items and has been confirmed through factor analysis to demonstrate satisfactory reliability. The research study asked participants to provide answers using seven different response types, which ranged from strong disagreement to strong agreement. The Romanian version of the Dirty Dozen was translated by Dragos Iliescu, ensuring its accessibility to Romanian-speaking populations.

The self-esteem scale, developed by Rosenberg in 1965, serves as a valuable tool for assessing individuals' own perceptions of themselves. This 10-item scale allows respondents to rate their agreement or disagreement using a 4-point Likert scale: 1 means "Strongly Disagree," and 4 means "Strongly Agree." Strong reliability has been demonstrated by the scale (Cronbach's α =.79), indicating its consistency in measuring self-esteem. In our study, we utilised the Romanian version of the self- esteem scale, thoughtfully translated into Romanian by Avramescu Răzvan, Ana Maria Oţel, Turtoi Vlad Mosoni, Antonia Mara Diaconiță, Daniel Florea, and Cristina Pavel, thereby enabling its use within the Romanian-speaking population and facilitating the assessment of self-esteem within this cultural context.

The self-efficacy scale, developed by Schwarzer and Jerusalem in 1995, serves as an invaluable instrument for gauging individuals' beliefs in their ability to effectively handle a wide array of problems and situations. The 10-item scale's high reliability indicates that it is accurate in measuring self-efficacy. A comprehensive self- evaluation is made possible by requiring participants to rate their responses on a scale of 1 to 4, where 1 denotes "completely false" and 4 denotes "completely true." In our study, we utilised the Romanian version of the

self-efficacy scale, thoughtfully translated and adapted for a Romanian population by Roxana Dimache and Coralia Sulea, ensuring its applicability and relevance within the cultural context of Romania.

2.1.4. Hypothesis

H1: Our hypothesis was that the group of prisoners who received their first sentence between the ages of 16 and 20 would be represented by malevolent creative ideation.

H2: According to our hypothesis, compared to convicted individuals with fewer convictions, prisoners serving multiple sentences will display more malevolent creative ideation.

H3: Malevolent creative ideation is more prevalent in prisoners who have committed violent crimes than in the non-violent group.

H4: The fourth hypothesis is that all types of malicious creative ideation will be highly predicted by Machiavellianism.

H5: All forms of malevolent creative ideation are significantly predicted by narcissism.

H6: All types of malevolent creative ideation will be significantly predicted by psychopathy.

H7: The seventh hypothesis states that all types of malicious creative ideation are highly predicted by self-esteem.

H8: The eighth hypothesis states that self-efficacy will be a strong predictor of all malicious creative ideation.

2.2. RESULTS

Based on our initial statistical analysis, the skewness and kurtosis of the data suggested a normal distribution, indicating that the dataset was well-suited for parametric analysis. This assessment supports the appropriateness of employing parametric statistical methods in our analysis, ensuring the validity and reliability of our findings.

Table 2: Descriptive Statistics and Bivariate Correlations for Study Variables[2]

Variables	Min	Max	*M*	*SD*	1	2	3	4	5	6	7
Hurting People	0.0	16.0	3.90	4.05							
Lying	0.0	16.0	5.08	3.26	.35**						
Playing Tricks	0.0	11.0	3.75	2.30	.19*	.32**					
Machiavelliani sm	4.0	28.0	11.09	6.56	.51**	.38*	.18*				
Psychopathy	4.0	26.0	11.69	5.57	.37**	.24**	.15	.47**			
Narcissism	4.0	28.0	15.18	6.83	.23**	.15	.05	.39**	.36**		
Self-Esteem	14.0	37.0	26.36	3.97	-.09	.07	.13	-.03	-.04	.10	
Self-Efficacy	15.0	40.0	30.28	5.00	-.08	.18*	.06	.02	-.11	-.01	.30**

Our findings align with the research conducted by Paulus and Willam (2002), confirming the existence of linkage between all three DT traits. This convergence in results underscores the consistency and robustness of these associations across different studies, further supporting the interconnected nature of these subclinical traits. An analysis of variance using a one-way between-group analysis was performed in order to investigate Hypothesis 1. Using the Malevolent Creativity Behavior Scales (MCBS) sub-scales as a tool, this study sought to investigate if the age of one's who's executing the first sentence has any influence on how malevolently creative they are. By applying these particular scales, it was possible to conduct a thorough analysis of the association between malevolent creative ideation and age at first conviction, which yielded insightful information about possible trends or correlations in the data. In order to investigate the effect of the age at which prisoners started their criminal activity, three groups were formed: Group 1 included those who were convicted before 16 years; the second group were

[2] Idem

those inmates who had their first sentence between 16 and 20 years; and the last group was convicts sentenced above 20 years. The results revealed a statistically significant difference at the p <.05 level in scores related to harming others across the three age groups: F (2, 126) = 6.11, p =.003.

Based on eta squared calculations, the groups' mean score differences were significant, with a medium-large effect size of.09. The Tukey Honestly Significant Difference (HSD) test was used for post-hoc comparisons, and the results showed that Group 2 (M = 6.14, SD = 4.08) and Group 3 (M = 3.21, SD = 3.73) had significantly different mean scores. But neither Group 2 nor Group 3 showed any appreciable differences from Group 1 (M = 3.73, SD = 4.50)[12]. The only sub-scale of the Malevolent Creativity Behavior Scales (MCBS) that related to hurting people supported our original hypothesis.

Using a one-way between-groups analysis of variance, we investigated the impact of sentence count on the MCBS's lying, deceiving, and harming tendencies in order to investigate our second research hypothesis. Depending on how many sentences they had received overall, the participants were split up into four groups. Those serving one sentence made up Group 1, those serving two to three sentences made up Group 2, those serving three to four sentences made up Group 3, and those serving more than five sentences in total made up Group 4. Using this method, we were able to look more closely at the connection between behavioral tendencies and sentence count within the MCBS framework. Scores for hurting people varied significantly between the four groups at the p <.05 level: F (3, 126) = 6.84, p <.001. The eta squared method was used to determine the effect size of.14, which indicated a significant variation in average scores among the groups. The results of the Tukey Honestly Significant Difference (HSD) test post-hoc comparisons showed that Group 1's average score (M = 2.19, SD = 3.33) differed significantly from Groups 2 and 3's (M = 4.82, SD = 4.01) and 6.75, SD = 4.92). No discernible differences were observed between Group 4 (M = 4.00, SD = 3.61) and Groups 1, 2, or 3. Interestingly, the analysis of variance results showed that the quantity of malevolent creative ideation specifically related to the sub-scale of harming others was significantly influenced by the number of convictions.

The third hypothesis, which sought to compare the MCBS subscales according to the kinds of crimes that offenders committed—that is, to differentiate between violent and non-violent offenses—was tested using an independent sample t-test. The hurting people sub-scale scores of violent offenders (M = 3.40, SD = 3.78; t (128) = 1.75, p =.08, two-tailed) and non-violent offenders (M = 4.65, SD = 4.36) showed a significant difference. At eta squared =.027, the mean difference of 1.26 (95% CI: -.17 to 2.68) was deemed to be insignificant. Similarly, there was a significant difference in the mean difference of the scores for the playing tricks sub- scale between violent and non-violent offenders (M = 3.46, SD = 2.25; t (128) = 1.79, p =.08, two- tailed) and non-violent offenders (M = 4.19, SD = 2.33), indicating a small effect size (eta squared =.025). Contrary to expectations, our results did not provide evidence to support the hypothesis that violent offenders would exhibit higher scores on the MCBS subscales.

To test hypotheses 4–8, we used standard multiple regression analysis to predict different forms of malevolent creative ideation (namely, lying, hurting people, and playing tricks) for each of the Dark Triad traits, as well as for self-efficacy and self- esteem. Preliminary analyses showed no violations of the linearity, homoscedasticity, multicollinearity, and normality assumptions.

The initial multiple regression model effectively predicted malevolent creative ideation related to hurting people, as evidenced by a statistically significant outcome, F(5, 124) = 10.04, p <.001, with an R2 of.29. Among the variables considered, only Machiavellianism contributed significantly to the prediction (p <.001)[3.]

Regression coefficients and standard errors are shown in Table 3a.

Table 3a: Standard Multiple Regression – Malevolent Creative Ideation (Hurting People)[3]

Malevolent Creative Ideation (Hurting People)	*B*	95% CI for *B*		*SE B*	β	R^2	ΔR^2
		LL	***UL***				
Model						.29	.26***
Constant	2.37	-2.79	7.53	2.61			
Machiavellianism	.26***	.16	.38	.06	.43		
Psychopathy	.11	-.01	.24	.07	.16		
Narcissism	.01	-.09	.11	.05	.01		
Self-Esteem	-.05	-.21	.11	.08	-.05		
Self-Efficacy	-.05	-.18	.08	.07	-.06		

With a statistically significant result of F(5, 124) = 5.63, p <.001, and an R2 of.18, the second multiple regression analysis successfully predicted malevolent creative ideation related to lying. Self-efficacy (p <.05) and Machiavellianism both significantly influenced the prediction (p <.001). Detailed information on the regression coefficients and standard errors can be found in Table 3b. Additionally, the analysis emphasized the significance of self-efficacy and Machiavellianism in explaining differences in malevolent creative ideation related to lying.

Table 3b: Standard Multiple Regression – Malevolent Creative Ideation (Lying)[4]

Malevolent Creative Ideation (Lying)	*B*	95% CI for *B*		*SE B*	β	R^2	ΔR^2
		LL	***UL***				
Model						.18	.15***
Constant	-1.56	-6.00	2.87	2.24			
Machiavellianism	.17***	.07	.26	.05	.34		
Psychopathy	.07	-.05	.17	.06	.11		
Narcissism	-.01	-.10	.07	.04	-.02		
Self-Esteem	.03	-.11	.17	.07	.04		
Self-Efficacy	.11*	.00	.26	.06	.18		

The results of the third multiple regression analysis, F(5, 124) = 1.64, p <.16, R2 =.06, show that there was no statistically significant prediction for malevolent creative ideation linked to playing tricks. Table 3c contains the model's regression coefficients and standard errors. This implies that the analysis's variables were unable to adequately account for the variance in malevolent creative ideation related to playing tricks. To fully comprehend the elements influencing this specific facet of malevolent creativity, more research may be required.

[3,4] Ibidem

Table 3c: Standard Multiple Regression – Malevolent Creative Ideation (Playing Tricks)[5]

Malevolent Creative Ideation (Playing Tricks)	*B*	95% CI for *B*		*SE B*	β	R^2	ΔR^2
		LL	***UL***				
Model						.06	.03
Constant	.39	-2.98	3.75	1.70			
Machiavellianism	.06	-.02	.13	.04	.16		
Psychopathy	.04	-.04	.13	.04	.10		
Narcissism	-.02	-.09	.05	.03	-.06		
Self-Esteem	.08	-.03	.19	.05	.14		
Self-Efficacy	.02	-.07	.10	.04	.03		

Since neither psychopathy nor narcissism predicted any malevolent creative ideation, our hypotheses 4 through 8 have received some support. Standard multiple regression analysis revealed that, for the hurting people subscale, Machiavellianism only predicted malevolent creative ideation. Furthermore, it was discovered that self- efficacy and Machiavellianism were both highly significant predictors of malevolent ideation involving lying.

2.3. Discussion

Malevolent creativity in literature, as well as its associated constructions, is gaining popularity as researchers seek to uncover links and significant connections to answer numerous concerns regarding its structure and function. Although there is a growing corpus of research on this topic, most of the studies have been conducted on the general population, with just a few researches focusing on the prisoners sample, which is a neglected part. This study's main goal was to determine how well Dark Triad personality traits, self effectivenes, and self worth has a predictive power malevolent creative ideation in a maximum-security prison setting. The study aimed to shed light on the underlying mechanisms behind such behaviors by investigating

[5] Ibidem

the interactions between these particular variables and how they affect the tendency for malevolent creative thoughts among individuals incarcerated in high-security settings. Through examining the interactions among these psychological elements, the research aimed to identify plausible channels via which these factors could influence the formation of malevolent creative ideas within a high-security correctional setting.

In order to address and mitigate such harmful ideations, it is imperative to explore more deeply the dynamics of MC within the prison population. Researchers sought to improve our understanding of the psychological processes that underlie malevolent creative ideation among incarcerated individuals in maximum-security facilities by investigating the role of personality traits in predicting malevolent creative ideation.

Furthermore, our study aimed to offer significant insights into the basic mechanisms of MC particular to this population by exploring the relationships between these variables within the distinct context of a high-security prison environment. There were previously no studies that included self-esteem and self- efficacy and MC, making this a novel approach to the problem and the only one in the study field, with the potential to bring new findings to the literature.

Upon testing our initial hypothesis, our results only partially supported the notion that prisoners who start their criminal careers early (16–20 years old) will display more of the previously mentioned behaviour, at least for the hurting people subscale of malevolent creative ideation. Many results sustain the age-crime curve (Farrington, 1986; Gottfredson & Hirschi, 1990; Nagin & Farrington, 1992; Piquero et.al., 2003, 2007; Sampson & Laub, 1990, 1992; Shavit & Rattner, 1988; Steffensmeier et.al., 1989; Steffensmeier et.al., 1992; Shulman et al., 2013; DeLisi, 2014). While acknowledging the ongoing debate over the variables that contribute to the relationship between age and crime, we found an interesting explanation in the age-crime curve. Although there are wide variations in individual offending patterns, criminology theory indicates a strong relationship between criminal behaviour and age. According to research, criminal behaviour starts to appear in adolescence, peaks in late adolescence, and then gradually decreases. Also, important predictors of violent juvenile

delinquency can be negative life events, peer delinquent friends, and engaging in sports activities for a longer period of time. Another relevant explanation could be made by using a developmental perspective on criminal behavior. Moffitt's taxonomy of crime emphasises how criminality and delinquency decline with adolescent age (Moffitt, 1993). According to this theory, people can behave in two different ways when it comes to crime: those who commit crimes during their lifetime and those who engage in criminal activity only during their adolescence. People who commit crimes throughout their lives, beginning in adolescence and continuing into adulthood, are known as life- course-persistent criminals. Conversely, adolescent-limited prisoners are people who only commit crimes while they are still in their adolescent years and stop as they become older adults. Moffitt's taxonomy emphasises the significance of taking developmental factors into account when studying crime and delinquency and offers insightful information about the complexity of criminal behaviour (Barnes & Beaver, 2010; DeLisi, 2001; Lahey, Moffitt, & Caspi, 2001; Piquero, 2001; Piquero & Brezina, 2001; Piquero, Brezina, & Turner, 2005; Piquero & Moffitt, 2005; Ratchford & Beaver, 2009; Jennings & Reingle, 2012).

The second hypothesis was supported for the hurting people subscale of malevolent creative ideation in association with the greater number of offences committed, possibly because they are forced to cohabit with others who have committed the same or worse crimes, and they will unavoidably learn from others who have greater expertise in rule-breaking due to pressure and social learning circumstances. Inmates are more inclined to commit crimes when they receive rewards or reinforcement for them. These reinforcements can take the form of material gains, status, or approval from friends or significant others who also commit crimes. Criminal behavior is often learned through observation and imitation of others engaging in such behavior. This is called modelling, and it can be a very effective way for criminal activity to spread throughout social networks. The significance of social interactions and contexts in moulding criminal behaviour is emphasised by Aker's social learning theory. Individuals who associate with friends, family, or other close companions who engage in criminal activities are at a higher risk of committing crimes themselves. Aker's social learning theory posits that criminal behavior is acquired through social

interactions and reinforcement mechanisms (Watt et al., 2004; Huesmann et al., 2011; Felson, Lane, 2009; Akers, 2002; Akers, 2019; Akers, 2017; Tittle et al., 2012; Cochran et al., 2016; Armstrong, 2017). This might be how they regulate their coping skills to adapt to the environment, as the prison setting is known for being very violent and a manifestation of the interpersonal hierarchy of dominance, so those who act aggressively may be rewarded in an informal manner because of their conduct. Our hypothesis was not supported by the results, which showed that inmates serving sentences for non-violent offenses had higher levels of malevolent creativity ideation on the hurting people subscale. The neurophysiology of violent offenders through the prefrontal deficit theory may help to explain this result because, when compared to non-violent control subjects, they exhibit inhibition deficits and frontal cortex dysfunction (Raine, 2002; Nordstrom et al., 2011; Brower, 2001; Hoppenbrouwers et al., 2019; Philipp-Wiegmann et al., 2011). Also, a critical review sustaining these results for offenders (De Brito & Hodgins, 2009) was found in comparison with non-offenders. The higher-order cognitive processes known as executive functions, which are in charge of inhibition, set-shifting, planning, working memory, and attention, among other processes that enable people to behave in a goal- directed and self-controlling manner, are also impaired in violent offenders (Ogilvie et al., 2011; Meijers et al., 2015; De Brito et al., 2013). This could be another reason why prisoners who had committed non-violent crimes outperformed those who had committed violent ones. Malevolent creative ideation may require more precise planning and the application of creative and innovative cognitive processes because violent, aggressive, and impulsive behaviour are linked to prefrontal network dysfunction along with a lack of self-control. It is possible that violent offenders were less imaginative in their evil schemes because they were keen to carry out their schemes. Dark Triad traits were found to have a predictive effect on crime, especially violent delinquency (Pechorro et al., 2022).

Our next hypothesis was only partially supported because Machiavellianism was found to be predictive of lying and hurting others through malevolent creative ideation. Machiavellians can control situations to their advantage and achieve their desired outcomes by lying to others in an effort to

manipulate them and influence their behavior. Machiavellians are mainly interested in serving their own interests; thus, they might tell lies to keep themselves safe or achieve their objectives. They place more importance on their own prosperity and well-being than on the truth or the welfare of others. Lying is one tactic used by Machiavellians to hold onto their dominance and control over others. Machiavellians can weaken their competitors and bolster their own sphere of influence by disseminating false information or tricking others (O'Hair et al., 1981; Hart et al., 2019; McLeod & Genereux, 2008). It is possible that Machiavellians are empathetic and do not care about other people's feelings or well-being (Palomäki et al., 2016). There is also evidence about indirect aggression and Machiavellianism (Farrell & Vaillancourt, 2021) and the prediction of reactive and proactive overt aggression (Pursoo, 2013).

Our subsequent hypothesis regarding psychopathy and narcissism was not supported; these dark personality traits lacked predictive power for malevolent creative ideation. Maybe due to that, lying is a complex cognitive process that requires increased mental effort, as demonstrated by research by Meek et.al. (2014) and Gombos (2006). For this reason, when someone engages in deception, they must simultaneously keep track of the truth while creating a false narrative that is credible to others. Maintaining the facade of a lie requires the person to carefully navigate between fact and fiction, which can be mentally taxing due to the dual cognitive load. Moreover, lying becomes even more complicated when one suppresses feelings of guilt or fear of being discovered. According to studies by Zuckerman et.al. (1981) and Ekman (2009), people who lie have to deliberately repress these feelings in order to seem credible and stay undetected. The mental strain that comes from having to reconcile these contradictory emotions while creating a convincing lie can be amplified. The fact that narcissists might be more concerned with improving their own reputation and gaining attention than they are with engaging in deliberate harm or malevolent creative thought is one reason why narcissism may not be a reliable indicator of malevolent creative ideation. Although manipulative or exploitative behaviors may be displayed by narcissists to further their own agendas, their creative thinking may not always be directed toward evil or destructive goals. Furthermore, a degree of preparation, intentionality, and

cognitive flexibility that is not always linked to narcissistic traits may be involved in malevolent creative ideation. It is possible that narcissists would prefer to focus on their own accomplishments and ego-aggrandizement than on the intricate mental processes needed to come up with malevolent creative ideas. Also, because impulsivity and psychopathy are associated, people with psychopathy tend to act instinctively because they lack self-control and are unable to control how they react to annoyance or other unpleasant emotions (Douglas et al., 2012), reducing perhaps malevolent creative ideation.

In our study, self-esteem did not have predictive power on the malevolent creativity subscales of hurting people, lying, and playing tricks. Self-esteem is frequently linked to a growth mindset, intrinsic drive, and the desire for success and personal development (Orth & Robins, 2022). Those with high self worth possibly pursue their artistic endeavors to affirm their values, aspirations, and positive self- perception. This can lead to the development of positive and meaningful artistic expressions. The inclination to direct their creative energy in a way that aligns with their fundamental values and self-image could act as a safeguard against participating in harmful or malicious creative endeavors that might compromise their integrity and sense of self-worth. People who have a high sense of self-worth tend to be inclined in to approach their artistic endeavors with assurance, self-assurance, and genuineness, which allows them to explore and express their creativity in ways that align with their personal goals and values. People who have a high sense of self- worth are better able to steer the creative process with direction, purpose, and ethical consideration because they have a positive self-image and believe in their abilities.

An individual who reports increased self-confidence may be more aware of the moral implications of their decisions and less likely to develop wicked ideas that could harm other people or violate their moral convictions. People with high self- esteem typically have strong emotional regulation skills and efficient emotion management (Gomez et al., 2018). This emotional stability may serve as a barrier against engaging in malevolent creativity because they are less likely to act impulsively or carry out harmful behaviors driven by negative emotions. The significance of people's belief in their ability to engage in deceptive practices is highlighted by the role of self effectiveness and it’s

predictive power of lying based on malevolent creative ideation. Our research indicates that people who have higher levels of self-efficacy may also have better cognitive abilities and strategic thinking related to lying, which would allow them to more skillfully fabricate stories, manipulate data, and repress feelings in order to justify lying.

The cognitive processes behind lying behavior have been clarified by studies by Lan et al. (2023), Gaspar & Schweitzer (2019), and Ormond et al. (2016). These studies have also highlighted the significance of cognitive skills like emotional regulation, narrative construction, and cognitive flexibility in the context of deceit. People who are skilled at weaving compelling tales, balancing contradicting facts, and masking their genuine feelings might have the mental faculties required to participate in more complex forms of manipulation and deceit.

By deftly handling complicated situations and thinking beyond the box, these same cognitive abilities can be used to produce creative ideas—even malicious ones (Redifer et al., 2021). Self-efficacy, defined as a person's confidence in their capacity to carry out a particular task or produce a desired result, has an impact on an individual's capacity for original thought and problem-solving (Yodchai et al., 2022). People who have high self-efficacy in their creative thinking abilities might be more assured of their capacity to come up with original and creative ideas, even if those ideas are malevolent.

2.4. Limitations

Our study is not without limitations, considering the lack of diversity in the sample population may also contribute to the study's limitations, which could limit how broadly the results can be applied. To guarantee that the findings can be applied to a larger population, it is imperative that future research involve a more varied range of participants. Furthermore, the cross-sectional design of the study, which only offers a snapshot of the data at a single point in time, might have placed limitations on it. Studies that follow changes and patterns over time would be helpful in gaining a more thorough grasp of the connections between the variables being studied.

Additionally, the study's reliance on self-reported measures raises the possibility of social desirability and response bias, which could skew the data that was gathered. A more thorough examination of the concepts under study and an improvement in the validity of the conclusions might result from the inclusion of objective measurements or observational data.

In summary, although the study provides insightful information about the connections between psychopathy and deception, it has certain limitations that should be recognized and addressed in subsequent studies to ensure how efficiently and accurately are our results.

The main study's concept

Following the completion of the pilot study, we began designing the full study and its framework based on our findings, taking into consideration several variables. Before committing to the main study, we used a pilot study to evaluate and optimise the research concept, methodology, data-collecting instruments, and processes. This aided us in identifying any practical concerns, logistical obstacles, or methodological limits that needed to be addressed to ensure the success of the primary study. Following the completion of our pilot project, we were able to examine the feasibility of the main study in terms of recruitment, data collection, sample size, sample kinds, resources, and timetable. It revealed if the study strategy is reasonable and doable given the limits of result of our pilot study.

Our pilot study allowed us to explore preliminary ideas and research issues on a smaller scale, namely an imprisoned population. This stage enabled us to assess the relevance and validity of the research questions, as well as the suitability of the variables and measurements, before moving on to the main study. By performing pilot research, we were able to detect and predict any difficulties or obstacles that may develop during the primary study. This encompasses concerns like participant recruiting, data collection processes, data analysis methodologies, drop-out problems, and a lack of writing and reading abilities, as well as any unanticipated factors that may have an influence on the study results.

The pilot study afforded us a great opportunity to examine the quality of the data acquired and the reliability of the measures utilised, even though we included two instruments in the research that had not been validated on the Romanian population. We had a chance to make modifications following the evaluation, gathering data instruments and procedures from a smaller number of participants, to strengthen data quality, reduce errors in measurement, and further improve the validity of the findings in the main study, as well as eliminate the problems that we encountered in the pilot study. We also aimed to increase the credibility and generalizability of their research outcomes, leading to more robust and reliable results. By conducting a pilot study, we were able to make adjustments to the research design and methodology based on the pilot findings.

Increasing confidence in the research methodology and findings was the aim of our research design, which included the pilot study. Before beginning the main study, it offered a great chance to obtain real-world experience, solve possible problems, and make well-informed decisions based on empirical evidence, which increased our confidence in the validity and reliability of the research.

Regarding its conception and design, we would like to add a few important details. We started working on the basic framework of this thesis after finishing the pilot study and processing all the data, and we were successful in getting good outcomes. Corinna Perchtold-Stefan, who also made suggestions and was involved in the design of the subsequent investigations, made a significant contribution to the design process in addition to being the thesis coordinator. She counseled and walked us through the application of the MCT, a tool developed by her research team. Our thesis places significant emphasis on examining the evolutionary dimension of malevolent creativity by examining it through the lens of multiple sample types. Data from the adult sample was all gathered simultaneously between March 2022 and January 2024.

To better understand criminal behaviour and help researchers and practitioners understand the mindsets and actions that drive people to commit crimes, we started our PhD thesis design with an analysis of the MC displayed by prisoners. In pursuit of this goal, we also looked into the ways that criminals use their MC to commit fraud, as this can provide insight into their motivations, thought processes, and risk factors for future criminal behaviour.

The idea that prisoners who demonstrate malevolent creativity might be more dangerous to the safety and security of correctional facilities is the starting point for our attempt to evaluate and manage risk through the study of malevolent creativity. A pertinent incentive would be to look into psychological understandings of MC, which is often fueled by a complex interaction between personality traits, cognitive capacities, and environmental factors. Through examining this phenomenon within a prison population, we can learn important things about the psychological processes that underlie criminal behavior.

It therefore becomes vital to discuss the issues linked with the imprisonment environment itself, as well as how to carry out scientific study.

Prioritizing ethical concerns is crucial, including the need for researchers to ensure that the rights and welfare of people in detention are upheld during the course of the study. Informed consent must be obtained, confidentiality must be maintained, and any potential power imbalances between participants and researchers must be addressed.

We understood that participant and research staff safety and security had to come first when doing studies in correctional facilities. This could entail following security protocols, ensuring the physical and psychological well-being of participants, and being alert to potential threats within the study area.

It requires careful consideration to ensure voluntary participation when recruiting from the prison population because the participants may have mental health disorders or personality issues, which could significantly affect their willingness to participate. Additionally, if researchers are not paid or gain no benefit from participating, they may refuse to participate in the studies or become unmotivated. They may also be skeptical of the specific activities being conducted in the prison.

Researching in a prison setting can present certain challenges when it comes to gathering data, such as daily activities being overlapped with the study period, prisoners being brought before the court, or abrupt prisoner relocation. Additionally, there are problems with their overestimation of certain skills (writing, reading, synthesis, and analysis) that they have not learned, which could lead to bias when integrating psychological instruments related to psychological research. Therefore, in order to address these issues and maintain the validity and integrity of the study, we had to modify our research methodologies.

To better understand how the experimental group—convicts with particular personality traits, for example—relates to other reference groups, we recommended using both police officers and the general public as control groups. We believed that using a comparative approach could help explain how certain features manifest or are expressed in different contexts and among different populations. We designed the main study with the understanding that having two control groups allows for a more reliable comparison of the experimental group's characteristics. We aimed to establish

a reference point for evaluating the distinctiveness or applicability of the characteristics being studied by contrasting the experimental group with both the general population and a subset of individuals with a particular occupational background (police officers). The study's internal validity is strengthened by the inclusion of several control groups, which account for unrelated factors that could have an impact on the outcomes. By comparing the experimental group to two distinct control groups, researchers can more effectively isolate the effects of the variables of interest and reduce the likelihood that confounding variables will affect the results. Since comparing the experimental group to law enforcement officials and the general public can enhance the study's external validity, we selected these three types of samples. When results from different groups are consistent, the study is more significant and applicable because it is more likely to be transferable to larger populations or situations. Additionally, we suggested identifying potential differential effects or interactions based on group membership using the methodology we used. This can provide valuable insights into how different groups or organizations view or handle specific traits or behaviors in people. Policies, training initiatives, and interventions aimed at specific groups may benefit from a comparative analysis of police officers and the general public. Knowing how specific traits or behaviours manifest in different communities may facilitate adapting responses to foreseen challenges or promoting positive outcomes.

Additionally, whether the prison police are upholding accountability and integrity is something we want to make very clear to them. This is because dishonest creativity on the part of law enforcement can result in major transgressions, misconduct, and corruption, which erode public confidence in the legal system and foster strong prejudices against the law. In order to help identify the traits that lead to unethical behaviour and misbehaviour inside police organisations, we felt it was imperative to investigate this phenomenon in police personnel rather than prisoners. This phenomenon can be investigated to help identify the components or processes that give rise to and support unethical behavior and misconduct within law enforcement agencies.

Understanding criminal strategies—especially their exploration—is the

goal of this thesis. The development of tactics for one's own gain, such as bribery, corruption, or evidence manipulation, can result from police officers' malevolent inventiveness. Examining these behaviours can shed light on the mechanisms and reasons behind them, as well as the specific strategies that law enforcement officials may use to break the law or abuse their authority. Gaining insight into the ways in which malevolent creativity arises among police officers could facilitate the development of training curricula and supervision procedures that specifically address the attitudes and actions associated with unethical behavior. Identification of potential risk factors and weaknesses can help authorities address these issues effectively. Law enforcement professionals play a crucial role in establishing social and moral norms in a community. For this reason, public perceptions of police officers may suffer if incidents of evil ingenuity are made public. Police departments may show their commitment to accountability, justice, and moral behaviour by investigating and resolving this issue, winning back the trust of the communities they serve.

Numerous benefits could arise from this study of prison police officers, particularly considering that Oradea Prison hired a large number of people in 2022– 2024 who either graduated from institutions on the profile or were hired through outside sources. There is a severe shortage of human resources and a great need for these new recruits, so these new hires have brought with them a number of new courses and pressure to perform from the first weeks of employment. We think that if creative thinking is harmful in research, the main contribution it can make to the prevention and correction of misbehaviour is to help maintain the integrity of police rganizations. Once malevolent creativity in a police population has been studied, authorities can develop protocols to promote transparency, accountability, and moral behavior. This can eventually safeguard the integrity of police departments by assisting in the prevention and handling of misbehavior incidents.

But in addition to looking into the criminal population, we also wanted to compare certain findings with samples from other categories, like prison police and the general public, the latter of which we used as a control group. This was noteworthy to us because research on malevolent creativity in a healthy population sheds light on the darker aspects of human nature.

To better understand the psychological underpinnings of harmful and illegal behaviour, our proposal was to investigate the ways in which non-criminals can demonstrate malevolent creativity. Stated differently, the analysis of malevolent creativity within a non-pathological population enhances the detection of individuals who may engage in harmful activities. We think it is essential to include the general population in the PhD thesis because it will explore how techniques and tools for risk assessment could be strengthened by malicious creativity. Investigating the mental processes that underlie malicious creativity may be able to assist people in identifying and overcoming their inclination to engage in illegal activity.

Enhancing knowledge of the factors that contribute to fraudulent conduct can help people make more morally and judiciously informed decisions in the workplace, relationships, and social settings. Since we believe that by examining the prevalence, causes, and effects of malevolent creativity in non-criminal populations, researchers may expand theoretical frameworks and improve our understanding of human behavior in both benign and destructive situations, the study of malevolent creativity in a normal population adds to the body of knowledge in psychology and criminology. As an illustration of possible uses for the data, we might think about how this research can affect the creation of instructional plans, regulations for the workplace, and neighbourhood initiatives that forbid aggressive behaviour and promote beneficial social norms. Additionally, by looking at the factors that contribute to malevolent creativity, interventions that lower risks and encourage prosocial behavior can be developed. This research can influence workplace policies, community initiatives, and educational programmes that discourage bad behaviour and support morally sound behaviour.

3. Enlightment of the darkness, the relationship between malevolent creativity, personality traits and impulsivity

3.1. METHODS

3.1.1. Participants

The current study's participants were chosen from three different categories: Oradea Maximum-Security Penitentiary inmates serving their sentences, Romanian citizens, and police officers employed by the penitentiary of Oradea. A thorough investigation of malevolent creative ideation across various demographics and viewpoints within the criminal justice system was made possible by the inclusion of these varied samples.

A priori power analyses using G*Power revealed that a minimum sample size of n = 301 participants would be required for conducting ANOVAs with three groups and detecting small to medium-sized effects (f = 0.18) with a significance level of α = 0.05 and power of 0.80. This would ensure the statistical power and reliability of the study. The research ultimately comprised n = 381 participants; however, six of them had to be omitted from the analyses because their malevolent creativity assessments' questionnaires lacked certain information.

In addition, seven particiapants of the general public were disqualified from the analysis because they had disclosed past criminal records and periods of incarceration, which may have tainted the results and distorted the conclusions about malevolent creative ideation. The study sought to assure the validity and integrity of the information gathered from the general population sample by excluding these people who had a criminal record and a history of incarceration.

Overall, the rigorous selection and exclusion criteria used for the study's participant samples were intended to improve the validity and precision of the research findings about malevolent creative ideation in various prison populations and Romanian society at large. Following methodological guidelines and taking into account potential confounding variables allowed the study to attempt to offer insightful information about malevolent creativity and its

consequences for people with a variety of backgrounds and roles in the criminal justice system.

A total of n = 368 male participants made up the final sample for our study. These participants included 140 prisoners (average age M = 36.44, standard deviation SD = 10.79), 122 police officers (average age M = 34.25, SD = 7.69), and 106 members of the general public (average age M = 30.20, SD = 12.42). A variety of offenses were committed by the prisoners, as evidenced by an analysis of the types of crimes for which they were found guilty.

Of the inmates, 49.5% were found guilty of violent crimes like murder, rape, and assault, while 50.5% were found guilty of non-violent crimes like theft, drug trafficking, and driving without a license. The percentage of crimes committed by inmates varied: 35% had committed one offense, 34.3% had committed two, 8.6% had committed three to five, and 22.1% had committed more than five. The prisoners' sentences varied in length, with an average of M = 7.71 years (SD = 6.55), a minimum of 7 months, and a maximum of 30 years. When asked what age they were first found guilty, 8.6% of prisoners said they were found guilty before turning 16, 20.7% before turning 20, and 70.7% after turning 40.

This shows that there is a broad range of ages at which engaging in criminal activity can result in legal repercussions. Furthermore, a subset of the inmate population had a history of criminal activity and incarceration, as evidenced by the 53.6% of those in prison having served one to three terms, 34.3% having served one to three terms, and 12.1% having served more than three separate prison terms.

3.1.2. Hypothesis

In contrast to the pilot research, in which we created eight hypotheses, we did not conceptualise any hypotheses in the major study of our Ph.D. thesis, and we would want to defend this in the following few concepts stated above. Our study was an exploratory study, therefore we initially examined three sorts of populations: the experimental group (inmates), the general population, and police officers. As far as we know, our research is one of the early stages of

research on the issue of malicious creativity, and we thought that it would be appropriate to develop just certain parameters for this study that would meet our aims.

Because our pilot study had concrete hypotheses that were clearly defined, we wanted to be flexible in data processing so that we could focus on identifying new connections between malevolent creativity and Machiavellianism, psychopathy, or even impulsivity by adding two measures of malevolent creativity. We advocated disregarding preliminary findings in order to explore deeper into areas of correlations between our variables that emerged during the investigation in the three samples we examined.

Again, as far as we know, no researcher has conducted such a complex study comparing such a large number of participants and samples (inmates, normal population, and police staff). Without a preconceived premise, qualitative research approaches can give subtle, deep qualitative data insights into sample characteristics and circumstances, resulting in rich and thorough data.

Our exploratory study was specifically focused on understanding the phenomenon of malicious creativity across different personality qualities, as well as uncovering patterns that underpin the relationships between the variables. Also, we felt it more important to maintain the exploratory aspect of our research and attempted to characterise the characteristics of individuals involved in the study as well as the phenomena of malicious creativity without testing just certain hypotheses. This offered us more freedom to investigate other hypotheses as it was proposed.

This sort of study can yield useful insights and fundamental information. We established minimal expectations for our research and analysis of themes to delve into complex subjects with malicious creativity utilising two validated measurements. In the context of sample comparisons, we strongly agreed that we should not set premises and conduct statistical analyses without a defined hypothesis, leaving us more open to unexpected results and insights.

This flexibility enabled our study to investigate and develop new topics of inquiry or make changes in research direction based on the data acquired. We attempted to analyse the complexity of malicious creativity as a phenomenon,

and we concluded that because a fixed hypothesis could favour certain complicated and diverse concerns, it may be improper to confine the investigation to a single hypothesis. As a result, we aimed to investigate relationships among numerous components without limiting our enquiries with hypotheses. Our strong interest in the topic of malevolent creativity led us to design this main study without a hypothesis, so that the study itself could serve as a foundation for future research by generating new hypotheses based on our gathered data, expanding our understanding of malevolent creativity, which requires more exploration and research to establish a foundation for the concept.

Without the limits of verifying a specific hypothesis, we were more free to study uncommon elements of malicious creativity, while also encouraging our own creativity throughout the research design and statistical analysis. We hypothesised that by not being attached to a certain hypothesis, we may eliminate bias in our data analysis and interpretation, allowing for more impartial conclusions based on what our data revealed regarding malicious creativity and its relationship to personality traits.

We would agree that, while hypotheses are important in many research approaches, particularly in exploratory research, as in the case of our main study, we have identified valid reasons and frameworks that allow for research without a specific hypothesis, emphasising discovery and a deeper understanding. Overall, we supported the choice to not have a hypothesis because we believe it will enhance the research process, particularly in areas that are still developing or little understood, and will lead to new pathways of study and advances in malevolent creativity.

Demographic data was assessed by the demographic questionnaire created by us while considering the research technique, data gathering methods, research objectives, research hypotheses, and conceptual scheme. When developing the instrument, we primarily considered its suitability to the specifics of the penitentiary environment on the one hand, but also in accordance with the normal population, the objectives mentioned above, and the aspects related to the specifics of the penitentiary population that were investigated: a low level of

schooling compared to the rest of the population (by default, this denotes a poor understanding and communication capacity), and a and a strong susceptibility to the validity of the answers to the questions (correlated with their criminal background, given the fact that they have frequently had to go through the phases of criminal investigation and sentencing). Therefore, we thought it was important to consider when creating the research instrument the need for an accessible language and a few relative items (to prevent participant refusal). The questionnaire was created in line with the principles for methodological construction (logical and psychological ordering of the questions, scale composition, etc.) and evaluated in the pilot study described in the first section of the paper. The questionnaire included general questions about each participant, for example: age, gender, number of sublings, criminal background, educational level, career history, and intake of various forms of substances (drug, alcohol). The key differences between the two included samples were that the criminal sample was asked more questions about sentence execution. The questionnaire was composed by the authors to gather supplementary information about the participants, completing the information from the scales and questionnaires.

Table 4 Frequencies for demographic data[6]

Demographic data	Category	total		Prisoners		General population		Police officers	
		n	%	n	%	n	%	n	%
education	primary school (grade 1-4)	10	2.7	10	7.1	0	0	0	0
	secondary grade (grade 5-8)	56	15.2	47	33.6	9	8.5	0	0
	high school (grade 9-12)	105	28.5	53	37.9	40	37.7	12	9.8
	professional / trade school	89	24.2	14	10	9	8.5	66	54.1
	university studies	108	29.3	16	11.4	48	45.4	44	36.1
alcohol consumption	never	59	16	20	14.3	31	29.2	8	6.6
	rarely/occasionally	286	77.7	107	76.4	69	65.1	110	90.2
	frequently	20	5.4	11	7.9	6	5.7	3	2.5
	alcohol dependence	3	0.8	2	1.4	0	0	1	0.8
drug consumption	never	322	87.5	100	71.4	103	97.2	119	97.5
	rarely/occasionally	24	6.5	21	15	2	1.9	1	0.8
	frequently	11	3.0	10	7.1	1	0.9	2	1.6
	drug addiction	11	3.0	9	6.4	0	0	0	0
self-mutilation	none	341	92.7	119	85	102	96.2	120	98.4
	once	15	4.1	11	7.9	3	2.8	1	0.8
	twice	5	1.4	4	2.9	0	0	1	0.8
	more than twice	7	1.9	6	4.3	1	0.9	0	0
suicide attempts	none	350	95.1	127	90.7	104	98.1	119	97.5
	once attempt	8	2.2	5	3.6	2	1.9	1	0.8
	two attempts	4	1.1	4	2.9	0	0	2	1.6
	more than two attempts	6	1.6	4	2.9	0	0	0	0

[6]Perchtold-Stefan, C. M., Szabó, E., Rominger, C., Fink, A., Opris, L., & Pataky, N. (2024b). Criminal genius or everyday villain? A comparison of malevolent creativity among prisoners, police officers, and the general population. *The Journal of Creative Behavior*. https://doi.org/10.1002/jocb.1512

3.1.3. Measures

3.1.3.1. Malevolent Creativity Behavior (MCBS)

MCBS was developed by Hao et.al., 2016 to assess people's malevolent creativity through their everyday behavior: lying, hurting people and playing tricks. The 13-items scale was developed to asses three types of behavior: hurting others (consists of six items), the lying subscale has four items, the last subscale playing tricks is constructed by three items. Responses on the scale given by 5 type of answers, from never (0) to usually (4), and the sum of the item values indicates the level of malevolent creativity. All three subscales on the scale—injuring people (Cronbach α=.0.80), lying (Cronbach α=.0.76), and playing tricks (Cronbach α=.0.61)—show reliability and validity ranging from adequate to good. The three subscales assess malevolent creativity behavior in terms of hurting others (e.g., M = 2.42, SD = 3.34, α = 0.81), lying (e.g., M = 2.75, SD = 2.85, α = 0.75), and playing tricks on others (e.g., M = 1.96, SD = 2.00, α = 0.56). Average total malevolent creativity behavior for the total sample was M = 7.14 (SD = 6.77).

3.1.3.2. Malevolent Creativity Potential (MCT)

It is believed that circumstances in which people are mistreated or provoked by others are more likely to elicit malevolent creativity (Baas et al., 2019; Harris & Reiter- Palmon, 2015). Participants in the Malevolent Creativity Test (MCT) are shown realistic-looking negative social scenarios involving unfair behavior from friends or peers. According to Perchtold-Stefan et al. (2021a), the MCT gives participants three minutes to come up with creative solutions for each scenario that aim to avenge or counteract the unfair actions' perpetrators. The purpose of this test is to evaluate people's malevolent creative ideation in reaction to perceived injustices and social provocations.

Several studies (Perchtold-Stefan et al., 2021ab, 2022abc, 2023ab) have shown significant correlations with verbal divergent thinking, depressive mood, antisocial personality traits, and dysfunctional emotion regulation related to anger, supporting the validity of the MCT. These results highlight the MCT's usefulness in identifying elements of emotional reactions, personality traits, and

cognitive flexibility that are connected to malicious creativity and interpersonal conflict.

Electroencephalography (EEG) studies have also provided neurophysiological validation of the MCT, showing comparable EEG alpha activation patterns during MCT tasks in comparison to general verbal divergent thinking tasks (Perchtold-Stefan et al., 2023ab). As a gauge of malevolent creative ideation in reaction to social challenges and provocations, the MCT's construct validity is further supported by this neurophysiological data.

Six different MCT scenarios were used for the current study (Perchtold-Stefan et al., 2023ab). Each scenario presents a distinct social dilemma that encourages participants to use malevolent creative thinking. A breached financial agreement with a neighbor, a negligent coworker breaking important property, an impolite roommate interfering with study sessions, an unfair rivalry for a romantic relationship, an unfair job competition, and a coworker stealing food from the office refrigerator are a few examples of these scenarios. The goal of the study is to learn more about malevolent creativity and its relationships with different psychological and cognitive factors by analyzing participant responses to these scenarios.

This study differed from the original Malevolent Creativity Test (MCT) in that participants were asked to come up with one original malevolent idea per scenario. This change was made to improve adherence to the testing procedure and streamline the procedure for populations other than students. The emphasis was shifted from mere idea generation fluency to the depth and creativity of the responses by concentrating on eliciting one excellent malevolent idea per item.

Our study sought to improve participant engagement and expedite the task by soliciting only one malevolent idea per scenario, in contrast to the standard MCT procedure that requires participants to generate multiple ideas within a given time frame. This modification was especially helpful for participants—such as prisoners and members of the general public—who were not used to creativity tests or instructions about malevolence.

The recognition that certain individuals, particularly those who have not previously engaged in malevolent creativity tasks, might find it difficult to come

up with malevolent ideas when presented with several prompt items led to the modification of the MCT approach for this study. We aimed to facilitate a more meaningful and focused exploration of malevolent creative ideation within our special participant population by streamlining the task and concentrating on eliciting one powerful malevolent idea per scenario.

Previous studies using the MCT have shown that participants from student populations can occasionally struggle to come up with malicious and creative ideas for retaliation, even when given explicit instructions about the task's hypothetical nature. Through customization of the MCT process to the unique requirements and features of our study cohort, our aim was to increase the quality of the properties of the malevolent creativity evaluation.

We first evaluated the participants' willingness to engage in malevolent creative ideation using the Malevolent Creativity Test (MCT), and then we assessed the caliber of the ideas that were produced. Following a thorough analysis of each participant's responses to the MCT scenarios, a score of 1 was given in cases where it was evident that the intent was to generate a malicious creative idea. On the other hand, participants who specifically refused to participate in malevolent creativity by expressing their refusal or providing constructive or non-malevolent approaches to problem-solving received a score of 0.

Although participants were informed that the test is hypothetical, a significant percentage of them—22.6% in total—decided not to interact with any of the MCT scenarios. Their responses, which either flatly rejected the task or offered non- malevolent solutions to the given dilemmas, demonstrated this reluctance to engage in malevolent creative ideation. Based on the percentage of items in each of the six scenarios that involved malevolent creativity, the mean engagement in malevolent creativity was determined to be M = 44.07% (SD = 36.04%).

A subset of concepts (n = 285 or 77.4% of the sample) were evaluated after ideas that clearly showed the involvement of malevolent creativity were further examined for malevolence and originality. We aimed to evaluate the breadth and originality of malevolent ideas produced by participants who were willing to participate in this part of the MCT by concentrating on responses that

demonstrated malevolent creative thinking. We were able to focus on the main malicious creative ideation within our participant group and investigate the subtleties of their malicious responses in more depth thanks to this selective evaluation process.

After the participants in the Malevolent Creativity Test (MCT) engaged in malevolent creative ideation, the ideas that were generated were evaluated by a panel of four seasoned raters, two of whom were women and the other two men. The degree of malevolence and originality were the two main criteria used by these raters to assess the ideas. With a mean score of 0.99 and a standard deviation of 0.71, the originality of the ideas was rated on a scale from 1 (very unoriginal) to 4 (very original). Similarly, a scale of 1 (somewhat malevolent) to 4 (very malevolent) was used to rate the ideas' malevolence, resulting in a mean score of 1.09 and a standard deviation of 0.79.

In order to evaluate the consistency of the raters' ratings, the intraclass correlation coefficient (ICC) was computed. A high degree of interrater reliability was shown in the evaluation of the concepts for these two dimensions by the ICC values of.95 for originality and.97 for malevolence. This high degree of agreement among the raters demonstrated the validity of the evaluation procedure and the consistency in determining the originality and malevolence of the participants' creatively malicious ideas.

In order to arrive at the ultimate score for MC, the sum of malevolent ideas that were rated as moderately original (≥2) on the originality scale was counted. This method assumes that in order for a creative idea to be deemed truly malevolent, it must demonstrate both originality and harmful intent, drawing inspiration from the groundbreaking research of Harris and Reiter-Palmon (2015). The total malevolent creativity score was derived from the sum of all malevolent ideas that met the predetermined level of originality, building on this theoretical framework that highlights the dual criteria of harm and novelty in malevolent creativity (see in Harris et al., 2013).

The study determined that each participant possessed an average of 1.15 malevolent creative ideas, with a standard deviation of 1.43. This indicates that the participant sample exhibited varying degrees of malevolent creative output. This thorough evaluation process, which was informed by well-

established theories and exacting rating guidelines, made it possible to assess malevolent creativity in the study population in a nuanced manner and provided insight into the interaction between malicious intent and creative thought context of malevolent ideation.

3.1.3.3. Personality Traits

The Romanian version of the *MACH-IV Scale* (Christie & Geis, 1970; translation by Gavreliuc et al., 2009) was given to evaluate Machiavellianism. The scale is composed by 20-item, three-dimensional self-report test of Machiavellian principles that examines a dishonest, manipulative, fraudulent, and unreliable mindset. According to Paulhus and Jones (2014), it is regarded as one of the most widely used policies to date. With 20 items, the MACH-IV is rated from 1 (strong disagreement) to 6 (strong agreement). The overall sample mean score was $M = 63.82$ ($SD = 5.36$, $\alpha = 0.72$).

The Psychopathy Checklist-Revised (Hare, 1991, 2003) is a 20-item scale that has been used to assess psychopathy in clinical, medico-legal, research, and criminal settings. It is also recommended for use in evaluating psychopathic personality disorder in the criminal population. Every facet of psychopathic traits and behaviors is covered in the exam. Although PCL-RTM scores can be effectively applied in other populations as well, their primary use is in the prediction of recidivism risk and the possibility of rehabilitation for offenders. Translation and modification by Ioan Tia and Daniela Iliescu in 2013, also Dragoş Iliescu, Ioan Tia, and Laura Mohorea translated the PCL-R into Romanian and translated the accompanying documents. Participants in the study were inmates of both sexes from four different prisons that are representative of the Romanian penal system. Data were collected through the conventional method (semi-structured interviews and document analysis). The stable structure of the PCL-R is supported by two associated components (interpersonal/affective and social deviation) and four facets (interpersonal, affective, lifestyle, and antisocial): factor 1 (interpersonal, affective, e.g., grandiose sense of self- worth; $M = 3.51$, $SD = 3.22$, $\alpha = 0.77$) and factor 2 (lifestyle, antisocial, e.g., impulsivity, irresponsibility; $M = 2.83$, $SD = 3.47$, $\alpha = 0.76$). The overall psychopathy mean score was $M = 7.26$ ($SD = 7.14$, $\alpha = 0.88$). The Oradea Penitenciary has purchased the license to administer this test to the

offender population.

The Barratt Impulsiveness Scale Version 11, a 30-item self-report measure, was used to measure impulsivity (Patton et al., 1995; also see Stanford et al., 2009). Four types of responses were used to score the items, with 1 representing "rarely/never" and 4 representing "frequently/always." The overall scores indicate the levels of total impulsivity (M = 64.17, SD = 10.54, α = 0.82) as well as three second-order factors: motor impulsiveness (e.g., "I act on impulsive", M = 20.60, SD = 4.98, α = 0.71), attentional impulsiveness (e.g., "I have racing thoughts", M = 16.57, SD = 3.72, α = 0.66), and non-planning impulsiveness, which includes aspects of auto-control and cognitive complexity (e.g., "I say things without thinking", M = 27.00, SD = 4.78, α = 0.60). Ana Toma translated the BIS-11 version into Romanian, which we utilized for our investigation.

3.1.4. Procedure

Given the presence of three distinct study samples, a comprehensive approach to the data collection process for each sample was essential. As part of the research strategy, a range of tests and questionnaires, some of which had been validated for use in Romanian, were employed to gather the necessary data. Upon the initiation of the research, meticulous attention was devoted to securing approval from the ethics commission for the data collection procedures. This involved providing a detailed outline of each step involved in the data collection process for every individual sample. Furthermore, the procedures adhered to the stringent guidelines set forth as the recommendations were upheld in conformity with the American Psychological Association (APA). The methodology also included the practice of informing and obtaining participation agreements from the participants. This involved clearly articulating all aspects related to the completion of psychological instruments and ensuring that participants were fully informed and engaged in the research process in accordance with ethical standards. Following submission to the United Psychological Research Board, the study was accepted under permission number 2022-74. Before beginning the study on the detainees, the facility's director has to be informed in writing. This issue is particularly important since,

according to current legislative standards and Order No. 443 of the Ministry of Justice, inmates might obtain three credits (an award) for engaging in research. These credits can be used in the future for a range of benefits, such as visits and packages. After receiving approval from the unit director to conduct research at Oradea Maximum Security Prison, we promptly advertised the opportunity to participate in our study on malicious creativity through notices posted on prison section bulletin boards. Adhering to ethical standards, there were no specific requirements for inclusion in the study other than the need for voluntary consent. Those who expressed interest were provided with questionnaires to complete, and a preliminary list of convicts who provided verbal agreement was compiled. We created notional lists of 10 to 15 convicts based on their detention section and execution regime. By instructing those on the list of participants, we ensured that they had the necessary knowledge to complete all of the instruments while also being briefed on the critical importance of confidentiality and GDPR compliance. By accepting the informed consent and acceptance formula, which includes GDPR, study participants indicated that they were willing to engage in research activities voluntarily and that they understood their rights to privacy and data protection. Participants showed that they understood the study's procedures, potential risks and benefits, and the confidentiality of their personal information by agreeing to the terms specified in the informed consent and acceptance formula. Additionally, by signing this agreement, they guarantee that their data will be handled ethically and legally throughout the research process by adhering to the rules and regulations outlined by the General Data Protection Regulation (GDPR). We emphasised the need to anonymize any personal data, ensuring its privacy and security. Meanwhile, they were completing their set of scales; they were assured of intimacy, and there were no time restrictions for completing the questionnaires.

Google Forms is an online platform powered by Google that allows users to post different sorts of questionnaires so subjects can quickly and easily collect information from all around the world, serving as a significant aid in research without incurring additional fees. Additionally, the platform offers the option of downloading all participant responses in a format that makes it simple to upload them to statistical software like SPSS, etc.

On social media sites like Facebook, the general population was attracted by joining groups with a large number of members. They clicked on a link to the Google Forms website, where all the forms they needed to fill out were dutifully uploaded. Each participant has read the participation agreement, which includes information about the advantages and disadvantages of completing the instruments. The study's participants did not get goods or payments in exchange for their participation.

All tests and questionnaires were completed in Romanian by all participants. The total testing procedure lasted ~ 60 min.

3.2. Statistical Analyses

Preliminary assessments were conducted to investigate potential group differences across several key variables in order to set the foundation for our analyses. We investigated personality traits and age using analysis of variance (ANOVA) to see if there were any noteworthy differences between the groups. Furthermore, we utilized chi-squared tests to explore differences in educational attainment, drug and alcohol usage habits, instances of self-harm, and past attempts at suicide among the various study groups.

Proceeding to our primary analyses, we performed three distinct univariate ANOVAs in order to investigate possible differences between the groups of interest and to further explore the domain of malevolent creativity. In these analyses, the grouping variable that included inmates, law enforcement personnel, and members of the general public served as the between-subjects factor. Our primary focus revolved around investigating group discrepancies in three crucial aspects of malevolent creativity:

1. Total Malevolent Creativity Behavior (MCBS): This study sought to identify group differences in the participant's observable malevolent creative behaviors in order to shed light on the overt expressions of malevolent creativity within each group.
2. Total Malevolent Creativity Engagement (MCT): This analysis aimed to identify the participants' active participation by the responses given of malevolent ideas through the comparison of the group differences by the degree

of engagement with malevolent creative ideation tasks.

3. The analysis conducted in this section focused on the total malevolent creativity potential (MCT) of each group. It evaluated the ability and propensity of individuals to generate malevolent ideas when exposed to stimuli that are relevant to them.

In keeping with our thorough investigation of malevolent creativity and its contextual foundations, we expanded our analyses by focusing on particular subscales and carrying out sensitivity analyses among the incarcerated population.

Using ANOVAs, we investigated group effects in the main models of the Malevolent Creativity Test (MCT) and Malevolent Creativity Behavior Scale (MCBS) subscales during our third analytical phase. This approach allowed us to investigate potential group differences in terms of creativity and malevolence as well as the specifics of lying, injuring people, and playing practical jokes.

In our fourth set of analyses, we then examined convictions for various categories of crimes and violent versus non-violent crimes in an effort to separate out the intricate dynamics within the prison population. To do this, several sensitivity analyses were performed, utilizing independent sample t-tests to examine group effects based on the categories of crimes committed. We looked at the potential impact of crime type on malevolent creativity in an attempt to explore the relationship between criminal behavior and malevolent ideation.

Moreover, it was used Pearson's and Spearman correlations to investigate possible relationships with prior incarceration, number of crimes committed, date of first conviction, and length of prison sentence in order to find associations between participants' malevolent creativity and their criminal history. Through the use of a multidisciplinary approach, we were able to decipher the intricate relationships that exist between criminal behavior and malevolent creativity, providing insight into the possible impact of criminal history on malevolent ideation.

To further investigate the significant ANOVA group effects found, post- hoc analyses were carried out with Games-Howell tests to take into

consideration the different error variances seen in each group. Through a more in-depth investigation of group differences in malevolent creativity, these post-hoc tests were able to shed light on the precise characteristics of these effects. ANOVAs used partial eta squared (ηp^2) to measure the percentage of variance attributable to group effects, while t-test effect sizes were reported as Cohen's d, providing a standardized measure of the magnitude of group differences.

To ensure that only statistically robust findings were taken into account for result interpretation, a significance level of $p < .05$ was applied to all analyses. These intricate analyses were carried out more easily with the help of IBM SPSS version 28, which offered a reliable platform for statistical investigation and data interpretation.

It is significant to note that all analyses related to the Malevolent Creativity Test (MCT) were based on a subsample of participants who actively participated in coming up with at least one malevolent creative idea during the test ($n = 285$ out of the original $n = 368$). By concentrating on a small group of participants who showed a willingness to participate in malevolent ideation, this focused approach made it possible to investigate malevolent creativity more precisely and provided a more thorough understanding of the dynamics at work in this particular cohort.

Through the application of rigorous statistical methodologies, cutting-edge analytical techniques, and a focus on a subset of actively participating participants, our goal was to reveal subtleties about the intricate relationship between malevolent ideation, individual engagement, and group dynamics in the context of malevolent creativity.

3.2.1. Cut-off points

In the methodology section of our thesis, we ran across an interesting concern that arose after thoroughly analysing our measures for malicious creativity. There was an interesting argument regarding whether we should utilise cut-off points in defining levels ranging from high to low levels of malicious creativity. It was evident that if we intended to classify our population based on cut-off points, we needed to tread cautiously before attempting to

evaluate and draw conclusions based on the information acquired. For these reasons, many psychologists prefer to employ more dimensional methodologies or to examine scores in the context of a thorough examination rather of depending exclusively on cutoff points. We found no attempt in the literature by researchers in the field to perform such a thing to stabilise the cut-off points of the malevolent creativity measurements, and we did not deem this appropriate for a variety of reasons. For example, if we claim that participants can score 52 points on the MCBS and use a 35-point cut-off to determine if someone possesses malicious creativity, what about those who score 34? Are they not malevolently inventive, and should we simply ignore them? Of course not.

Even subtle types of evil creativity can cause harm (e.g., repetitive bullying or taunting, continually destructive jokes, etc.). There is a reason why assessments of dark personality traits and even psychopathy do not strictly use cut-off scores for general research: dark personality and deviant behaviour are on a continuum, and cut- off scores are also heavily influenced by population (e.g., prisoners vs. non-prisoners), culture, and even gender.

As a It's an interesting point to discuss about the possibility to use cut-off points in the measurements of malevolent creativity, but we would be arguing that if none of the researchers have proposed to utilize it, that it has a great foundation in statistic and literature. As an overall point of view about we should use cut-off points for malevolent creativity are not helpful for researching the phenomenon in the general population, where malevolent creativity may not appear in its extremes, but more subtle forms (lies, manipulations, aggressive humor). If you would try to decide on cut-off scores, a big question would be, what counts towards cut-off scores? Should it be about the frequency of behavior (how often), or about the severity of the behavior (how harmful) or a combination of the two? Or even, who the behavior is directed towards (children vs. adults)? there are more reasons why of all the papers published with malevolent creativity, no one has introduced cut-off scores until now. To begin, we agree that using cut-off points in the measurement of malevolent creativity will result in a loss of nuance, because cut-off points can oversimplify complex psychological constructs by reducing a continuum of scores into binary categories (e.g., "diagnosed" vs. "not diagnosed"). This may neglect individual variances and complexities in psychological functioning, particularly in the

normal group, where malevolent creativity tests were used in a higher number of instances.

Another significant aspect, which we maintain, is that false positives and negatives might occur, and depending on cut-off points can lead to misclassification, as well as other sorts of behaviour (tricks, revenge, falsehoods, and so on). Individuals close to the cut-off may not match the criteria for a diagnosis while having symptoms, such as in the case of psychopathy, whilst those just over the cut-off may be diagnosed without a strong sign of impairment, resulting in possible over- or underclassification.

In our PhD thesis, we emphasised contextual elements, which indicates that psychological circumstances are frequently influenced by context, including cultural, social, and situational aspects, such as one's standing as a convict, police officer, or simply a plain guy. A set cut-off may not account for these variances, resulting in incorrect outcomes. Personality variables have the property of variability. We know that psychological states change throughout time.

A cut-off may not accurately reflect a person's current status or development, ignoring the dynamic nature of mental health. In the attempts to control the high and low levels of malicious creativity, notably in the case of convicts, we may deal in numerous cases with the possibility of stigmatisation. Labelling people based on cut- off scores might lead to stigma since it places them in strict groups that may not accurately reflect their health or experiences. There are evidentiary constraints to categorising the amount of malicious creativity since cut-off points are sometimes arbitrary and may not be supported by strong empirical data. This might call into question the assessment's validity and reliability.

However, because no research has attempted to categorise malevolent creative levels, we may assume that it is not simply a methodological issue, but also a more complicated reason that incorporates the phenomenonological issue of evil creativity.

3.3. Results

3.3.1. Preliminary Analyses

3.3.1.1. Demographic Variables

The observed variations in age between study participants from various groups provided fascinating new information about the study cohort's demographic makeup. The general population was found to have significantly younger people than both police officers ($p = .004$) and prisoners ($p < .001$), indicating that these two groups have different age profiles. It is interesting to note that there was no discernible age difference between police officers and prisoners ($p = .090$), indicating that the age distributions of these two cohorts were converging. A statistically significant effect ($F(2,365) = 10.96$, $p < .001$, $\eta p^2 = 0.06$) was found in the analysis of age differences between groups, highlighting the influence of group membership on age disparities within the study sample.

Furthermore, there were significant differences in the participants' educational backgrounds between the groups, which provided insight into the wide range of educational backgrounds among the study sample. A significant percentage of inmates stated that they had finished elementary school through high school, suggesting that this group included many people with basic education backgrounds. Contrarily, the majority of police officers and members of the public reported having completed their education at universities and trade schools, indicating a higher prevalence of people in these groups with higher education and vocational credentials. A noteworthy finding from the examination of educational backgrounds ($X^2 = 185.30$, $p < .001$) highlighted the various educational paths that individuals from various groups had followed.

The examination of self-destructive behaviors and substance use patterns in individuals from various groups revealed fascinating details about the risk factors and behavioral profiles that were common in each cohort. The findings demonstrated that there was a distinct pattern of self-harming behavior among the inmate population, with inmates showing a significantly higher propensity for self-mutilation than did police officers and members of the general public ($X^2 = 20.98$, $p = .002$). This research emphasizes how vulnerable

prisoners are to self- harming behaviors and emphasizes the necessity of focused interventions to address these troubling tendencies in correctional settings.

Moreover, there were notable variations in the amounts of alcohol and drugs consumed by the groups, with police officers reporting lower levels of occasional alcohol and drug use than both inmates and the general public. According to the analysis, there was a lower likelihood of substance-related behaviors among police officers, which could be explained by their lower likelihood of using drugs ($X^2 = 54.34$, $p < .001$) and alcohol ($X^2 = 28.96$, $p < .001$).

Inmates showed a higher incidence of suicide attempts than police officers and the participants of the normal population, according to a trend-level difference in the history of suicide attempts between the groups. Although the trend indicates a possible elevated risk of suicidal behavior among inmates, the difference did not reach statistical significance at the conventional level ($p = .055$), underscoring the necessity of comprehensive mental health support and suicide prevention measures within correctional facilities.

3.3.1.2. Personality Traits

Data revealed that groups under examination varied significantly in their Machiavellianism scores, with police officers scoring considerably higher than prisoners ($F_{2,365} = 3.60$, $p = .028$, $\eta p^2 = 0.02$). In particular, the mean Machiavellianism score was higher for police officers than for prisoners ($p = .039$). Nevertheless, no statistically significant distinctions were found between the general public and inmates ($p = .167$) or between law enforcement personnel and the general public ($p = .681$).

According to the research, there were notable variations in total psychopathy, factor 2, and psychopathy factor 1 between the different groups. Based on statistical analysis, it was found that the psychopathy level of prisoners was higher than that of police officers and the general population. A strong effect size was indicated by statistically significant differences in all three factors, with p-values less than 0.001. Factor 1 had a ηp^2 effect size of 0.07,

while factor 2 and total psychopathy had a ηp² effect size of 0.12. In addition, the results revealed a statistically significant difference in psychopathy levels between the general public and police officers for factor 1, factor 2, and total psychopathy. The effect sizes were noteworthy once more, with ηp² ranging from 0.07 to 0.12. The p-values were 0.027, less than 0.001, and 0.005, respectively. All things considered, the study offers significant new information about the differences in psychopathy levels between various groups.

The groups differed significantly in terms of overall impulsivity ($F_{2,365} = 23.28$, $p < .001$, $\eta p^2 = 0.11$). The p values of the general public and police officers were both.157, whereas the p values of prisoners were higher than those of non- prisoners (p's <.001). Additionally, there were notable group differences in the subscales measuring attentional impulsiveness ($F_{2,365} = 17.89$, $p < .001$; $\eta p^2 = 0.09$), nonplanning impulsiveness ($F_{2,365} = 7.71$, $p < .001$, $\eta p^2 = 0.04$), and motor impulsiveness ($F_{2,365} = 32.11$, $p < .001$; $\eta p^2 = 0.15$).

In comparison to non-prisoners, prisoners exhibited higher levels of motor impulsivity (p's <.001), attentional impulsivity compared to police officers (p <.001) and the general population (p =.037), and nonplanning impulsivity (p <.001). Police officers reported higher levels of nonplanning (p =.058) and lower levels of motor (p<.001) and attentional (p =.004) impulsivity at the trend level compared to the generation population. Group means and standard deviations are displayed in Table 5 along with an overview of the ANOVA results.

3.3.2. Results For Malevolent Creativity Behavior (MCBS)

3.3.2.1. Differences between groups

Based on ANOVA results ($F_{2,365} = 15.25$, $p < .001$, $\eta p^2 = 0.08$), the study's conclusions showed significant differences in the MCBS among the groups. Particularly, compared to police officers (p <.001) and, to a lesser degree, the general population (p =.064), prisoners reported a higher level of malevolent creativity behavior in their daily lives. Furthermore, the general public reported being more malevolently creative than police officers (p =.011).

The preliminary results were further supported by sensitivity analyses that took age and education levels into consideration. These additional analyses demonstrated a trend towards reporting more malevolent creativity behavior than the general population ($p = .053$) and confirmed that prisoners exhibited significantly higher malevolent creativity behavior compared to police officers ($p < .001$). To further emphasize the differences between these groups, it was also discovered that the general public exhibited significantly more malevolent creative behavior than police officers ($p = .023$).

Subscales of the MCBS underwent additional analysis, which uncovered more subtle group differences among the subjects. The study found that prisoners reported a higher level of malevolent creative behavior aimed at harming people ($p = .003$) compared to police officers. However, this difference was not statistically significant when compared to the general population ($p = .754$). It is interesting to note that the general public showed a tendency to report more harmful behavior than police officers ($p = .073$; $F_{2,365} = 4.99$, $p = .007$, $\eta p^2 = 0.03$).

In addition, compared to police officers ($p < .001$) and the general public ($p = .004$), prisoners reported participating in more malevolent creative behavior related to lying. When comparing lying behaviors between prisoners and police officers ($p < .001$) and the general population ($p < .001$), the differences were especially noticeable, indicating unique behavioral patterns among these groups.

Furthermore, when comparing the MCBS subscale of playing tricks between prisoners and police officers, the former reported significantly higher malevolent creativity behavior in this area ($p = .001$), while the latter showed no significant difference from the former ($p = .153$). Interestingly, compared to police officers, the general public reported more lying on the MCBS ($p < .001$; $F_{2,365} = 25.85$, $p < .001$, $\eta p^2 = 0.12$). Police officers and the general public did not significantly differ in their use of playing tricks ($p = .436$; $F_{2,365} = 5.79$, $p = .003$; $\eta p^2 = 0.03$), highlighting the complexity of malicious creative behavior among the study's various groups.

When comparing prisoners to police officers, further analysis showed that the group differences in playing tricks on the Malevolent Creativity Behavior

Scale (MCBS) subscale were reduced to a trend level (p =.076). Nevertheless, even after performing sensitivity analyses that adjusted for age and educational attainment, the results for the MCBS hurting and lying subscales stayed mostly unchanged. A thorough summary of the malevolent creative behavior displayed by various groups is given in Table 5, which also includes the descriptive statistics and ANOVA results for the main MCBS model.

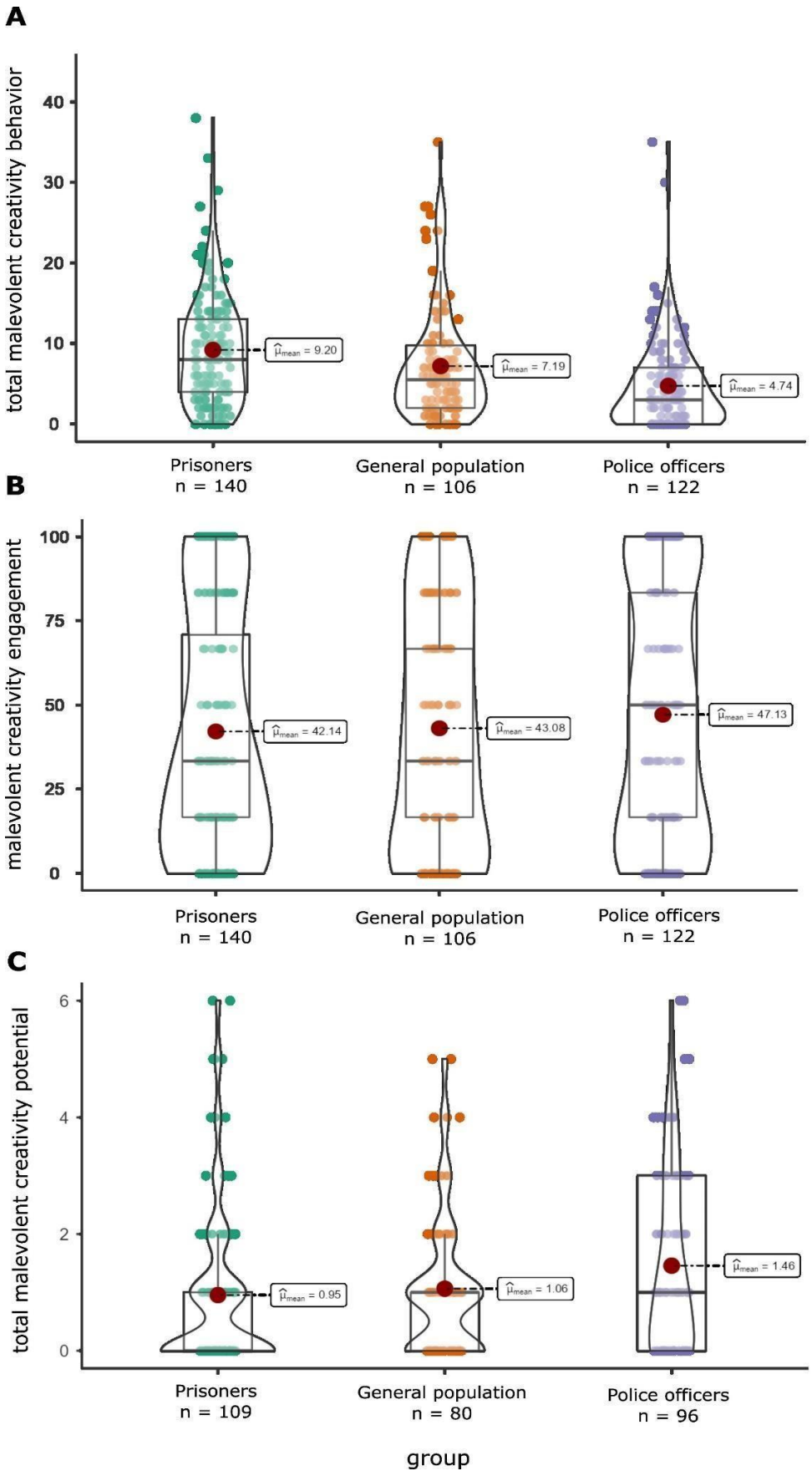
3.3.3. Results For Malevolent Creativity Engagement (MCT)

3.3.3.1. Differences between groups

Interestingly, the Malevolent Creativity Test (MCT) revealed no significant group differences regarding the willingness to participate in malevolent creativity, either in relative terms ($F_{2,365} = 0.68$, $p = .508$, $\eta p^2 < 0.01$) or absolute terms (no/yes; $X2 = 0.36$, $p = .836$). This implies that people in the general public, law enforcement personnel, and prisoners all showed comparable degrees of openness to come up with creative ways to exact revenge, as Figure 6 shows.

These results held true when age and education were included in the ANOVA model, suggesting that the willingness to engage in malevolent creativity was the same for all groups independent of demographic variables.

Figure 6. Group differences for total malevolent creativity behavior as self-reported on the MCBS (A), for malevolent creativity engagement on the MCT (B), and for total malevolent creativity potential on the MCT (C).[7]



[7]Perchtold-Stefan, C. M., Szabó, E., Rominger, C., Fink, A., Opris, L., & Pataky, N. (2024b). Criminal genius or everyday villain? A comparison of malevolent creativity among prisoners, police officers, and the general population. *The Journal of Creative Behavior*. https://doi.org/10.1002/jocb.1512

3.3.4. Results For Malevolent Creativity Potential (MCT)

3.3.4.1.Differences between groups

Through ANOVA analysis, a significant group difference in total malevolent creativity potential was found ($F_{2,282} = 3.45$, $p = .033$, $\eta p^2 = 0.02$). In particular, when participants were compared between groups, the results showed that prisoners performed worse on the Malevolent Creativity Test (MCT) than police officers did ($p = .046$), but there was no significant difference between the prison population and the general population ($p = .839$). Furthermore, there was no statistically significant difference in malevolent creativity potential between police officers and the general population ($p = .151$).

Remarkably, further analyses revealed that although there were significant differences in the overall MC score, with no group differences in MCT originality ($F_{2,282} = 1.81$, $p = .166$, $\eta p^2 = 0.01$) or MCT malevolence ($F_{2,282} = 0.07$, $p = .931$, $\eta p^2 < 0.01$). This implies that although the groups differed in terms of their overall capacity for malevolent creativity, these differences did not show up in the inventive ideas that were produced in terms of originality or malevolence.

Moreover, the differences in malevolent creativity potential between police officers and prisoners decreased to a trend level ($p = .096$) after age and education were added to the model as additional factors, highlighting the possible impact of these demographic variables on the observed group differences.

Regarding the potential for the Malevolent Creativity Test, please see Table 5 for a thorough summary of the descriptive statistics and ANOVA findings.

Table 5. Anova results for group differences in different aspects of malevolent creativity [8]

		Prisoners	Police officers	General population	Anova results				
		M (SD)	M (SD)	M (SD)	df	Error	F	p	np^2
Malevolent Creativity Behavior (MCBS)	Total Score	9.20 (7.00)	4.74 (5.58)	7.19 (6.87)			15.25	**<.001**	0.08
	Hurting	2.94 (3.60)	1.67 (2.62)	2.60 (3.60)			4.99	**.007**	0.03
	Lying	3.89 (3.28)	1.51 (2.01)	2.71 (2.43)	2	365	25.85	**<.001**	0.12
	Tricks	2.38 (2.04)	1.56 (1.73)	1.88 (2.13)			5.79	**.003**	0.03
	Engagement (%)	42.14 (35.62)	47.13 (37.34)	43.08 (35.18)			0.68	.508	<0.01
Malevolent Creativity Performance (MCT)	Total Score	0.95 (1.40)	1.46 (1.58)	1.06(1.22)			3.45	**.033**	0.02
	Malevolence	1.09 (0.80)	1.11 (0.80)	1.07 (0.76)	2	282	0.07	.931	<0.01
	Originality	0.91 (0.66)	1.10 (0.78)	0.98 (0.68)			1.81	.166	0.01

Note. Df = degrees of freedom; p = significance, np^2 = partial eta-squared effect size; N = 368 for MCBS and MCT engagement, and N = 285 for MCT potential. Significant effects are highlighted in bold.

3.3.5. Correlations and group comparisons within prisoners

A number of significant relationships between the total malevolent creativity behavior of prisoners and different aspects of their criminal history and behavior were found by the analysis. It was shown a positive association between the total malevolent creativity behavior with the length of sentences ($r = 0.18$, $p = 0.037$), the number of prior incarcerations ($r = 0.30$, $p < 0.001$), and the number of crimes committed ($r = 0.32$, $p < 0.001$). This implies that people with longer criminal histories exhibited higher degrees of malevolent creative behavior.

Furthermore, a negative correlation ($r = -0.23$, $p = 0.006$) showed that inmates whose first conviction happened when they were younger were tend to

[8] Perchtold-Stefan, C. M., Szabó, E., Rominger, C., Fink, A., Opris, L., & Pataky, N. (2024b). Criminal genius or everyday villain? A comparison of malevolent creativity among prisoners, police officers, and the general population. *The Journal of Creative Behavior*. https://doi.org/10.1002/jocb.1512

engage in malevolent creative behavior. Furthermore, at a trend level, the degree of malevolent creativity engagement was inversely connected with the length of a prison sentence ($r = -0.17$, $p = 0.050$), suggesting that those serving longer sentences have a lower tendency to engage in malevolent creativity.

Additionally, there was a trend toward increased malevolent creativity engagement among prisoners who had their first convictions at a younger age ($r = -0.15$, $p = 0.087$), suggesting a possible connection between early criminal behavior and malevolent creativity.

The length of a prison sentence is negatively correlated ($r = -0.23$, $p = 0.022$) with total malevolent creativity potential, which is interesting because it suggests that people with longer sentences may have a lower overall potential for malevolent creativity. Malevolent creative tendencies were also more prevalent in prisoners with prior first convictions ($r = -0.23$, $p = 0.019$), suggesting a link between criminal history and these traits.

Table 5 provides a detailed summary of the relationships observed in the study and provides an extensive overview of the correlations, including subscales of the Malevolent Creativity Test (MCT) and Malevolent Creativity Behavior Scale (MCBS).

There were no appreciable differences found in the analysis of the engagement in malevolent creativity and the overall malevolent creativity behavior of prisoners convicted of violent crimes. More specifically, there was no significant difference in total malevolent creativity behavior ($t(138) = 0.02$, $p = 0.981$, $d < 0.01$) or malevolent creativity engagement ($t(138) = -1.40$, $p = 0.164$) among this subgroup of inmates.

Conversely, it was discovered that inmates convicted of nonviolent offenses had a greater potential for malevolent creativity than inmates convicted of violent crimes, with a trend level difference ($M_{nonviolent} = 1.18$, $SD = 1.50$; $M_{violent} = 0.72$, $SD = 1.26$; $t(107) = -1.73$, $p = 0.087$, $d = -0.33$). This suggests that individuals convicted of nonviolent offenses may possess a marginally higher capacity for malevolent creativity in comparison to those convicted of violent offenses.

Furthermore, when examining the Malevolent Creativity Behavior Scale

(MCBS) subscales and the Malevolent Creativity Test (MCT) components, no observable group differences were discovered. Between prisoners found guilty of violent and nonviolent crimes, there was no difference in the MCBS subscales for lying ($t(138) = 0.29$, $p = 0.775$, $d = 0.05$), hurting ($t(138) = -0.57$, $p = 0.576$, $d = 0.01$), and playing tricks ($t(138) = 0.63$, $p = 0.531$, $d = 0.11$). In contrast, neither MCT malevolence ($t(107) = 0.08$, $p = 0.934$, $d = 0.16$) nor MCT originality ($t(107) = -1.14$, $p= 0.258$, $d = -0.21$) showed any discernible differences between the two groups.

These findings suggest that, while there may be some differences in the ability to engage in malevolent creativity among prisoners convicted of different crimes, other aspects of malevolent creativity behavior and tendencies are largely unaffected by the type of crime committed.

Groups with a minimum of ten participants were used to compare various crime types using the Malevolent Creativity Behavior Scale (MCBS) and the Malevolent Creativity Test (MCT). These comparisons covered six categories: theft (MCBS: $n = 19$, MCT: $n = 14$), drug crimes (MCBS: $n = 15$, MCT: $n = 15$), robbery (MCBS: $n = 12$, MCT: $n = 10$), murder and attempted murder (MCBS: $n = 34$; MCT: $n= 29$), and deception/bribery (MCBS: $n = 13$, MCT: $n = 11$). For post-hoc comparisons, least significant differences (LSD) were used because the follow-up analyses were exploratory in nature.

A significant group effect was found for malevolent creativity behavior ($F(5,108) = 4.38$, $p = 0.001$, $\eta p^2 = 0.17$) according to an analysis of variance (ANOVA). Malevolent creativity behavior was found to be more prominent among prisoners serving sentences for theft ($p = 0.018$ compared to murder, $p = 0.003$ compared to drug-related crimes, $p < 0.001$ compared to traffic-related crimes, $p <0.001$ compared to deception/bribery) and robbery ($p = 0.058$ compared to drug- related crimes, $p = 0.017$ compared to traffic-related crimes, $p = 0.017$ compared to deception/bribery). According to these results, people who have been convicted of theft and robbery may demonstrate more malevolent creative behavior in prison than people who have been convicted of other crimes.

See Figure 7, which offers a graphical representation of the variations in malevolent creativity behavior across the various crime categories, for a visual depiction of these results.

Groups with a minimum of ten participants were used to compare various crime types using the Malevolent Creativity Behavior Scale (MCBS) and the Malevolent Creativity Test (MCT). These comparisons covered six categories: theft (MCBS: n = 19, MCT: n = 14), drug crimes (MCBS: n = 15, MCT: n = 15), robbery (MCBS: n = 12, MCT: n = 10), murder and attempted murder (MCBS: n = 34; MCT: n= 29), and deception/bribery (MCBS: n = 13, MCT: n = 11). For post-hoc comparisons, least significant differences (LSD) were used because the follow-up analyses were exploratory in nature.

Table 6.*Correlations of malevolent creativity in prisoners and prison demographics*[9]

		1	2	3	4	5	6	7	8	9	10	11
1	MCBS Total	-										
2	MCBS Hurting	.82**	-									
3	MCBS Lying	.79**	.38**	-								
4	MCBS Playing	.72**	.45**	.42**	-							
5	MCT Engagement	.13	.10	.16	<.01	-						
6	MCT Total potential	.08	.09	.15	-.14	.61**	-					
7	MCT Malevolence	.18	.12	.29**	-.06	.92**	.71**	-				
8	MCT Originality	.11	.08	.20**	-.11	.91**	.86**	.91**	-			
9	Length of prison sentence (years)	.18*	.15	.15	.17	.05	-.21*	-.14	-.20*	-		
10	Age of first conviction	-.23**	-.27**	-.16	-.09	-.16	-.20*	-.27**	-.26**	-.19	-	
11	Number of committed crimes	.32**	.31**	.28**	.12	-.01	.02	.17	.07	.14	-.41**	-
12	Previous imprisonment	.30**	.26**	.22*	.22**	-.05	-.01	.12	.06	.09	-.52**	.59**

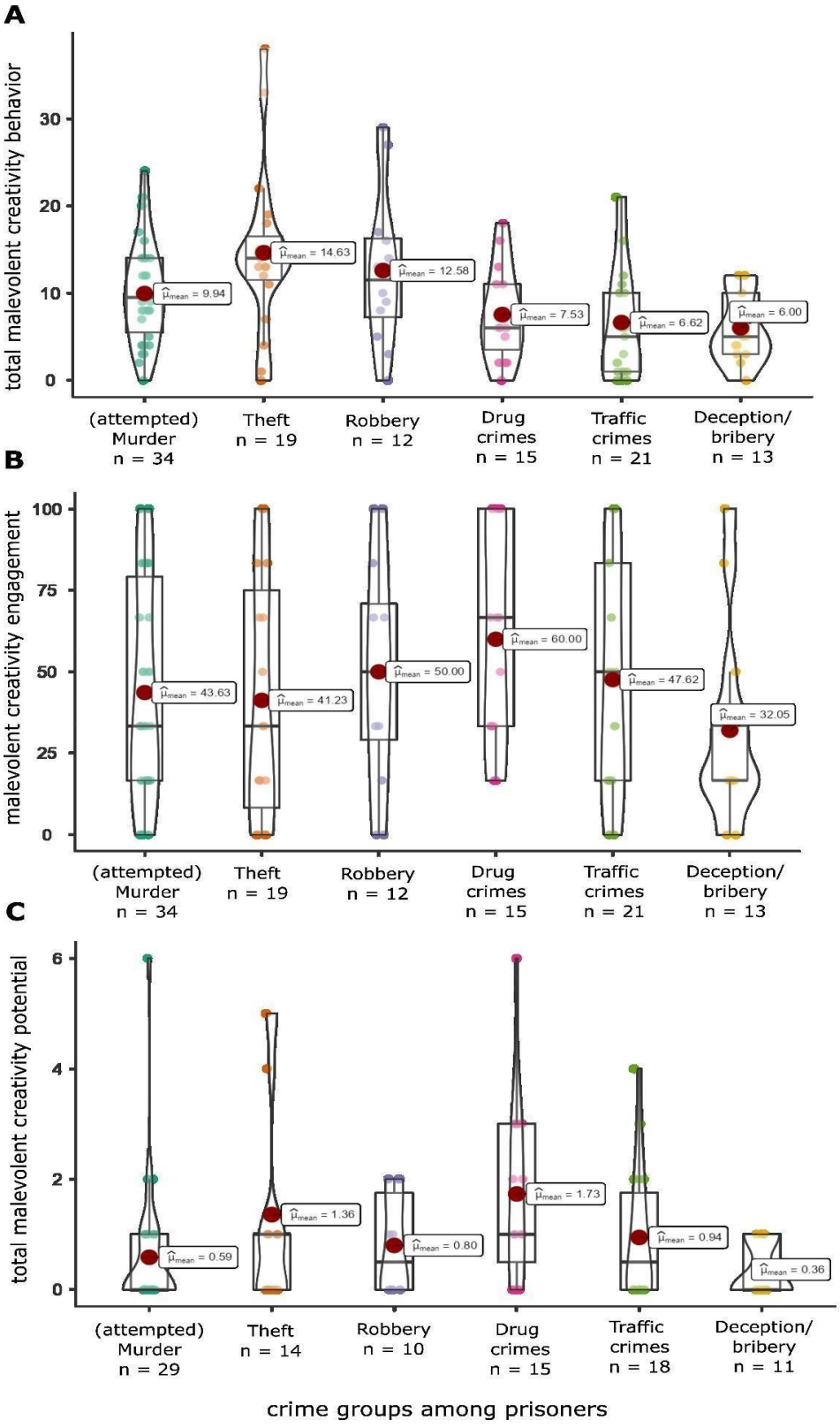
*Note. ** p <.01, * p <.05, n = 140 for MCBS, MCT engagement, and personality correlations; n = 109 for MCT potential, malevolence, and originality*

[9]Perchtold-Stefan, C. M., Szabó, E., Rominger, C., Fink, A., Opris, L., & Pataky, N. (2024b). Criminal genius or everyday villain? A comparison of malevolent creativity among prisoners, police officers, and the general population. *The Journal of Creative Behavior*. https://doi.org/10.1002/jocb.1512

A significant group effect was found for malevolent creativity behavior ($F(5,108) = 4.38$, $p = 0.001$, $\eta p^2 = 0.17$) according to an analysis of variance (ANOVA). Malevolent creativity behavior was found to be more prominent among prisoners serving sentences for theft ($p = 0.018$ compared to murder, $p = 0.003$ compared to drug-related crimes, $p < 0.001$ compared to traffic-related crimes, $p < 0.001$ compared to deception/bribery) and robbery ($p = 0.058$ compared to drug- related crimes, $p = 0.017$ compared to traffic-related crimes, $p = 0.017$ compared to deception/bribery). According to these results, people who have been convicted of theft and robbery may demonstrate more malevolent creative behavior in prison than people who have been convicted of other crimes.

Please see Figure 7, which offers a graphical representation of the variations in malevolent creativity behavior across the various crime categories, for a visual depiction of these results.

Figure 7. Differences for prisoner subgroups for (A) malevolent creativity behavior, (B), malevolent creativity engagement, and (C) total malevolent creativity potential.[10]



[10]Perchtold-Stefan, C. M., Szabó, E., Rominger, C., Fink, A., Opris, L., & Pataky, N. (2024b). Criminal genius or everyday villain? A comparison of malevolent creativity among prisoners, police officers, and the general population. *The Journal of Creative Behavior*. https://doi.org/10.1002/jocb.1512

3.3.6. Correlations of malevolent creativity indicators

On the Malevolent Creativity Test (MCT), malevolent creativity behavior showed correlations with a range of factors across all groups. These factors included MCT originality (ranging from 0.16 to 0.29), total malevolent creativity potential (ranging from 0.14 to 0.23), and malevolent creativity engagement (ranging from 0.16 to 0.27). Additionally, the willingness to engage in malevolent creativity was strongly correlated with malevolence on the MCT ($r = 0.94$), originality on the MCT ($r = 0.95$), and total malevolent creativity potential ($r = 0.60$). There were notable differences in the correlational patterns observed when these correlations were looked at separately for every group. Malevolent creativity engagement was higher among non-prisoners who reported higher levels of malevolent creativity behavior. For example, the general population showed a correlation of $r = 0.36$ ($p < 0.001$) between malevolent creativity behavior and engagement, while police officers showed a correlation of $r = 0.42$ ($p < 0.001$). Furthermore, self-reported malevolent creativity behavior and higher malevolent creativity potential on the MCT correlated positively in non-prisoner groups (general population: $r = 0.36$, $p < 0.001$; police officers: $r = 0.32$, $p = 0.001$).

On the other hand, no significant correlations between self-reported malevolent creativity behavior, potential, and engagement were found among prisoners (all p- values > 0.057), with correlation values less than 0.16. This implies that the relationship between self-reported malevolent creativity behavior, potential, and engagement may be different in the prison population than it is in non-prison groups. The underlying causes of these varying correlational patterns among various populations may require more investigation.

3.3.7. Correlations of personality traits with malevolent creativity behavior and potential

Malevolent creative behavior and Machiavellianism showed a negative correlation (r = -0.09 to -0.17), suggesting that those who engage in malevolent creativity may have fewer Machiavellian characteristics. On the other hand, characteristics of impulsiveness and psychopathy exhibited positive correlations (ranging from 0.14 to 0.53) with malevolent creativity behavior, indicating a possible relationship between these characteristics and the inclination for malevolent creative acts. Psychopathy (factor 1: r = 0.13, total: r = 0.11) and attentional impulsiveness (r = 0.13) were found to be correlated with willingness to engage in malevolent creativity on the Malevolent Creativity Test (MCT), suggesting a greater score of psychopathy have the tendency to enroll in malevolent creative behavior.

Additionally, there was a negative correlation (ranging from -0.19 to -0.24) between malevolent creativity potential and Machiavellianism, indicating that people with higher levels of Machiavellian traits may have a lower potential for malevolent creativity.

All personality traits showed positive correlations with MCT malevolence, with the exception of nonplanning impulsiveness (correlations ranging from 0.15 to 0.19). This suggests that people with particular personality traits may be more prone to participate in malevolent creative behavior. Further evidence of a possible connection between attentional impulsiveness and MCT originality and the creative aspects of malevolence came from a positive correlation (r = 0.12) between these traits.

Table 7, which outlines the connections between malevolent creativity behavior, personality traits, and other pertinent study variables, provides a thorough summary of these correlations.

Table 7. Correlational matrix of all study variables[11]

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	MCBS Total	-														
2	MCBS Hurting	.87**	-													
3	MCBS Lying	.81**	.50**	-												
4	MCBS Playing	.78**	.56**	.51**	-											
5	MCT Engagement	.25**	.24**	.19**	.19**	-										
6	MCT Total potential	.17**	.17**	.13*	.13*	.61**	-									
7	MCT Malevolence	.28**	.27**	.23**	.18**	.90**	.71**	-								
8	MCT Originality	.23**	.22**	.18**	.15**	.90**	.84**	.91**	-							
9	Machiavellianism	-.18**	-.16**	-.15**	-.13**	-.07	-.21**	-.23**	-.23**	-						
10	Psychopathy Factor 1	.47**	.44**	.34**	.36**	.09	.03	.13*	.05	-.26**	-					
11	Psychopathy Factor 2	.52**	.49**	.45**	.30**	.06	.03	.15**	.03	-.22**	.71**	-				
12	Total Psychopathy	.54**	.50**	.45**	.37**	.09	.02	.14*	.03	-.26**	.89**	.93**	-			
13	Impulsiveness Total	.51**	.45**	.40**	.41**	.08	.05	.15*	.07	-.25**	.46**	.49**	.53**	-		
14	Motor Impulsiveness	.56**	.52**	.45**	.40**	.08	.04	.16**	.08	-.30**	.51**	.56**	.58**	.81**	-	
15	Attentional Impulsiveness	.49**	.40**	.40**	.40**	.13*	.09	.21**	.14*	-.22**	.39**	.40**	.43**	.81**	.59**	-
16	Nonplanning Impulsiveness	.16**	.14**	.11*	.17**	<.01	<.01	.02	-.02	-.07	.18**	.19**	.21**	.73**	.28**	.39**

[11]Perchtold-Stefan, C. M., Szabó, E., Rominger, C., Fink, A., Opris, L., & Pataky, N. (2024b). Criminal genius or everyday villain? A comparison of malevolent creativity among prisoners, police officers, and the general population. *The Journal of Creative Behavior*. https://doi.org/10.1002/jocb.1512

3.4. Discussion

We studied the association between malevolent creativity and personality traits in three different populations: the general population, police officers, and prisoners. The purpose of our research was to determine whether personality characteristics in these various groups could be linked to malevolent creativity.

Exploring the extent and nature of relationships among impulsivity, psychopathy, and Machiavellianism—essential traits associated with MC—across various study populations was the main goal of our research. We also examined psychological constructs that are relevant to the topic but have not received as much attention in the literature as we did in our investigation. For example, we examined impulsivity as measured by the two malevolent creativity tests, the Malevolent Creativity Behavior Scale (MCBS) and the Malevolent Creativity Test (MCT).

Based on the two measures we used to assess this construct, the results show that malevolent creativity can take on different aspects. We discover that, when compared to police officers and the general public, prisoners reported higher scores on the Malevolent Creativity Behavior Scale (MCBS) lying subscale. Contrary to this, when compared to police officers, prisoners demonstrated a lower malevolent creativity potential in terms of the quantity of original ideas created in order to exact revenge (MCT). In terms of the groups' willingness to participate in malevolent creativity behaviour on the MCT, there were no discernible differences.

MC potential and MC behavior were found to positively correlate in a study involving a student sample, which contradicts our research findings. This discrepancy in outcomes implies that when MC potential was increased, participants did enroll into MC behaviors. This confirms that MC potential could be a necessary condition for participating in MC behavior, highlighting the importance of Hunter et al.'s malevolent innovation transformation framework (2022). This framework highlights how behavior and MC potential interact, illuminating the crucial role that MC potential plays in motivating malevolent creative acts.

We may consider that college students have different types of motivation and personality traits compared to those of offenders, whose main motivation can be adaptability to the conditions of penitenciary and survival through lying in

a highly malevolent environment, often resulting in rule-violation. (Celinska & Sung, 2014; Siennick et.al., 2013) thought of the importation theory (Reisig & Mesko, 2009; Jiang & Winfree, 2006; Berg & DeLisi, 2006; Jiang & Fisher-Giorlando, 2002).

This theory's central tenet is that people "import" values and socialisation experiences when they enter prison. Examples of these ideals and socialisation processes include racialized experiences and discrimination, subculture ideologies, and lifetime financial hardship, but age, ethnicity, gender, and criminal history can be considered in this theory as well. The other theory of misconduct is the deprivation theory, which alludes to contextual elements found in correctional facilities that may affect a prisoner's ability to adjust. Deprivation theory's basic tenet is that prisoners experience "pains of imprisonment" and are isolated from society, which leads to the emergence of a subculture that is usually violent and hostile to the prison institution (Cao et al., 1997; Tewksbury et al., 2014; Steiner et al., 2014; Cochran, 2012). Another plausible pathway is that the relationship between creative potential and creative achievements is mediated by creative activities, and the results indicate that trait emotional intelligence—more specifically, the sociability factor—and emotional creativity—more specifically, the novelty aspect—modify this relationship (Sordia et al., 2019). So as we know, inmates do have lower scores of emotional intelligence (Sharma et al., 2015; Megreya, 2014) compared to the normal population, which can influence in a negative manner the creative potential and the creative achievement as well. Another explanation that could be offered for the difference that appeared between creative potential between the groups is that while only creative achievement was linked to psychosocial growth, creative potential and achievement were both associated with intrapsychic growth (Helson & Pals, 2000). Perhaps because success in the adult world of creativity both encouraged and resulted in a commitment to creative work, identity became more important in the transformation of creative potential into creative achievement between the ages of 27 and 43. It is possible that prisoners have less developed intrapsychic processes than the general population, which could limit their creative potential.

In line with these results, there is evidence that supports our findings that police officers scored the lowest among the three samples for malevolent

creative behaviour in daily life. It is suggested that personality traits, such as DT traits, are unrelated to the production of truth or lie in a police sample (Semrad & Scott-Parker, 2019). Since the capacity to fabricate lies was found to be substantially negatively correlated with social self-esteem, a trait found in the extraversion domain, this finding suggests a relationship between low lie production skills and high social self- esteem (Semrad & Scott-Parker, 2019). This would make sense if the study only revealed negative personality traits, but it is also possible that some positive traits were also revealed.

According to our results counted for Machiavellianism, this finding is supported by other studies; police officers scored higher on Machiavellianism compared to inmate offenders, which is consistent with the differences in Machiavellianism that were observed in other studies conducted with police officers (Semrad & Scott-Parker, 2019; Anatolyevich & Aleksandrovna, 2020).

Differences in psychopathy have also been found between groups, indicating that the general population has a higher reported psychopathy rate than the police officer sample. According to recent research, the preponderance of psychopathy in the adult normal sample is 4.5%, based on meta-analytic techniques and a sample size of 11,497 individuals (Sanz-García et al., 2021). In accordance with previous research (Hare, 1991, 2003a; Guay et al., 2007; Fox & DeLisi, 2019; see Sanz- García et al., 2021), although not surprisingly, we found that prisoners had higher psychopathy than the other samples (police and general), indicating that average rates of psychopathy prevalence in male offenders or prisoners using the PCL or its versions typically range from 15 to 35%, though average rates between 15 and 25% are probably most appropriate in practice.

Also, impulsivity varies between samples, with the prisoner sample having a higher level of impulsivity (Jansen et al., 2022; Příhodová et al., 2023). Furthermore, impulsive behaviors among prisoners are greater than those of non-offenders due to deficiencies or deterioration in the executive function-controlled inhibition abilities, and these impairments may result in criminal behavior, according to a recently published meta-analysis that shows the executive functioning deficits of inmate prisoners compared to the normals (Türel et al., 2024).

People who have served multiple sentences and are considered recidivists frequently have a pattern of being minor offenders who commit less serious crimes that carry shorter sentences. In this context, we found that malevolent creativity behaviour was linked to the length of the prison sentence, to the number of imprisonments experienced, and to the number of crimes previously committed. This conduct points to a tendency towards criminal activity, such as robbery and theft. Fear has the potential to inspire creative thought, according to Singer (2010). Recidivists, in conclusion, may be motivated by negative emotions, especially fear, when committing these offenses. Moreover, research conducted by Perchtold-Stefan et al. (2022b) and

Baas et al. (2019) has indicated that the perception of self-threat can heighten the level of malevolent creativity. This is because we perceive those who perpetrate such crimes as facing the possibility of being discovered. Differences in the type of crime committed suggest a deeper insight into the possible effects of a crime on the individual. Taking this into account, drug use was found to be related to malevolent creative potential (MCT), as supported by the existing evidence that lies between drug use and divergent thinking in particular. Certain drugs, like cannabis, have been shown to improve verbal fluency in low-creative individuals to the same level as high-creative individuals (Schafer et al., 2012; Minor et al., 2014). Stimulant medications have also been shown to improve fluency, flexibility, and originality scores (McBride et al., 2021); low doses of LSD have been shown to improve originality on divergent thinking tasks (Prochazkova et al., 2018; Wießner et al., 2022). It is our contention that these brain regions that were impacted by drug use may remain affected for a medium- to long time and can increase malevolent creative potential (MCT).

Younger prisoners' propensity for misbehaviour inside the prison may also account for why, in our study, younger prisoners displayed more malevolent creative behaviour (Griffin & Hepburn, 2006; McReynolds & Wasserman, 2008; Walters & Schlauch, 2008; Camp et al., 2003) and to be subject to any kind of disciplinary action (Tewksbury et al., 2014), and also noticing that age (early) is a static risk factor that predicts recidivism (Papp et al., 2018; Goodley et al., 2021; Grieger, Hosser, 2013; Caudy et al., 2013; Labrecque et al., 2014). The same outcomes regarding malevolent creative behavior and age in a sample of prison inmates were found in a prior study (Szabó et al., 2022).

Numerous studies have connected Machiavellianism to malevolent creativity (Jonason et al., 2017; Geng et al., 2024; Jia et al., 2020; Gao et al., 2022). Indeed, some research has even discovered a predictive relationship between it and MC (Kapoor & Kaufman, 2021; Szabó et al., 2022). As an unexpected result in this specific context, we found a negative correlation with malevolent creativity in contrast to these findings.

The results of our study confirm the positive correlation consistently with other findings with psychopathy of the DT and MC (Jonason et al., 2017; Geng et al., 2024; Jia et al., 2020; Gao et al., 2022; Japp, 2023; Batey et al., 2022). Moreover, in experiments where participants had to come up with new ideas, it was found that these negative personality traits were also associated with ideas that were harmful or malevolent (Jonason et al., 2015; Kapoor, 2015; Kapoor & Kaufman, 2022b). This body of research highlights the complex interactions between individual traits and creative output in potentially harmful contexts, emphasizing the connection of malevolent creativity, DT, and the inclination to generate destructive ideas. Our results support the finding that impulsivity and malevolent creativity are related. Additionally, a study (Perchold-Stefan et al., 2022b) found a positive correlation between impulsive non-confirmity, or schizotypy, and malevolent creative behaviour (MCBS) and malevolent creative potential (MCT). Also, research indicates that depressive symptoms (interactional and motivational) as a risk factor can lead to increased impulsivity, a decrease in self-control, and prolonged rumination of anger, all of which can enhance malevolent creative ideation (Perchtold-Stefan et al., 2023c).

3.5. Limitations

Thus, our study can be considered one of the pioneer studies conducted in the malevolent creativity field, including three types of samples and two control groups (the normal population and police officers). Our study is cross-sectional, which makes us cautious in our interpretations of the results obtained.

We would state that inmates reported less malevolent creative potential on the task of MCT because of the possible consequences they thought it could affect them lately in different commissions or could be evaluated through a prism of a negative lens. Also, these restrictions could again bias our results,

being in line with the social desirability tendency, in which inmates prefer to pose in a more favourable light.

As far as the research in the literature is concerned, only a few articles (Bochkova, 2023) are available, including inmates (Bochkova, 2020), or at least two types of samples (inmates and police officers), and somehow more with police officers or cadets (Bochkova et al., 2021; Meshkova et al., 2021), although they investigate factors such as emotional intelligence and moral identity, which do not match any of our variables.

4. Conclusions

The study's main goal was to investigate any connections that might exist between particular incidents and the dark trio of psychological characteristics that are frequently linked to malevolent creativity in prisoners. This research methodology is novel in the field of psychology, especially when taking the Romanian penitentiaries and the legal system into account. Given the dearth of prior research in this area and the urgent need to address dysfunctional phenomena in prison environments, this study is especially important. In addition to addressing recidivism issues, the study's focus on understanding the association of malevolent creativity, the dark triad traits, particular events of prisoners lives is crucial in order of understanding the broader societal and economic implications of these issues. This research has important reflection of psychological dynamics at play in the prison environment and contribute to more effective interventions and policies aimed at improving outcomes for both incarcerated individuals and society at large by illuminating these intricate interconnections.

This paper represents a pioneering effort in the field of psychology within the Romanian judicial and correctional systems, as it adds to the scant literature on malevolent creativity among prisoners and prison staff. The increasing incidence of dysfunctional behaviours in prisons and the resulting effect on recidivism make this a critical modern problem with far-reaching consequences for the welfare of society and the economy as a whole.

To effectively support the researcher in collecting and analysing data to

achieve the research objectives, we employed a pivotal strategy for the precise delineation of the research design. This process involves a transition from the theoretical framework to the specific concepts, dimensions, and indicators expounded upon in previous sections. In alignment with the research goals, this approach will evolve into a descriptive research plan culminating in quantitative evaluations of malevolent creativity. By adhering to this structured research design, the study aims to comprehensively explore and measure malevolent creativity within the context of the prison environment, thereby contributing to a more nuanced understanding of this complex phenomenon.

Our contributions to these two studies have added a great deal to the existing findings on the malevolent behaviour topic. Prisoners have shown across both studies higher malevolent creativity behaviours in daily life on the lying subscale, indicating that such conduct could be adaptative in some grade in the process of imprisonment to obtain different types of favours or materials. Maybe because prisoners are good at deception detection, they are also masters at deception making, although they perform worse when it comes to identifying the truth (Hartwig et al., 2004).

Furthermore, it was discovered that the DT traits, impulsivity (Perchtold-Stefan et al., 2022c; 2023c), and psychopathy (Jonason et al., 2017; Geng et al., 2024; Jia et al., 2020; Gao et al., 2022; Japp, 2023; Batey et al., 2022) were all related. Additionally, Machiavellianism had a predictive effect (Szabó et al., 2022) on malevolent creative behaviour in daily life, underscoring the connection between dark personalities and dark creativity. Thus, Machiavellianism had a negative link with malevolent creativity, and this trait was greater in the police sample, which should be caused by self-served bias, when people tend to have higher self-bias in order to associate negative personal happenings (Wang et al., 2017).

Police officers have also been found to be higher in Machiavellianism, so this could be helpful and have practical benefits for them when it comes to their interactions with people who have personality disorders or suffer from mental illnesses, so they could use their high skills in planning and manipulation (Semrad & Scott-Parker, 2019, Anatolyevich & Aleksandrovna, 2020).

Self-efficacy had a predictive effect on the malevolent creativity behaviour, lying subscale; thus, from a prisoner perspective, it can be thought that a lie may

be a lower weight than committing a crime as a protective element (Woldgabreal et al., 2016), while self-efficacy in a criminal setting can maintain their criminal activity (Brezina, Topalli, 2012), and that criminal self-efficacy may be the result of a personal and vicarious learning process (Laferrière & Morselli, 2015).

While we can account for great results and important findings in our research due to our samples, we also have to mention some limitations that account for the interpretation of these results below. We tried to enlighten a deeper understanding through the use of two different types of measurement of malevolent creativity: a self- reported scale (MCBS), which purposely evaluates the behaviours that one would engage, and also the willingness of one's to have malevolent creative ideation measured through a creative potential test (MCT). We face the important question of which of these two is a more accurate measurement of the inmates malevolent creativity assessment: the self-reported on the MCBS (Hao et al., 2016, 2020; Zhao et al., 2022) or the MCT, a validated test evaluating the participant's performances (Perchtold-Stefan et al., 2021, 2022abcd, 2023ab). We should mainly focus in the future on distinguishing the creative process as a whole, separately into the creative generation, creative evaluation, and creative performance (Steele et al., 2018; Kleinmintz et al., 2019; Watts et al., 2019; Valtulina & de Rooij, 2019).

We did not find differences between the samples in their willingness to engage in potential malevolent creative situations (MCT), referring to the inmate sample, which did engage in revengeful ideas, but their responses weren't as malevolent as those of the police officers. Probably because dark personalities consider themselves more creative, this does not mean that they really are, as far as they were evaluated through a self-report measure (Lebuda et al., 2021), or simply that they may be. And it can be finely described by Eisenman (2008) that while inmates perceived themselves as creative, in reality, they weren't found to be creative in the cognitive creative task. Although the situations presented in the MCT could be defined as usual or every-day life events to provoke them to expose ideas of revenge of a malevolent nature, these situations can be situations that do not expose for the detainees situations of real interest or desire to actually engage in these situations on a mental level, or we can even assume that these types of situations presented for offenders are

unfamiliar (many of whom have no prior commitment history prior to incarceration). Future researchers should reconsider the scenarios used in the MCT to be more antisocial in nature, like prison-specific situations like writing a request in the name of the ”enemy” to be transferred to another penitentiary to take revenge for stealing personal objects (Eisenman, 2008; Cropley &Cropley, 2011).

In addition, the group effect was reduced to trend-level significance when age and education were added to the ANOVA models for MCT potential, but the overall pattern of results—lower malevolent creativity potential in prisoners compared to police officers—remained unchanged. Accordingly, group differences in education, intelligence, or cognitive complexity may have some bearing on our findings regarding MCT potential (Karwowski et al., 2016; Plucker et al., 2020; Příhodová et al., 2023).

Given our results that confirm increased psychopathy in the inmate sample along with the general population, we would suggest that more attention be paid to the individual-level factor of psychopathy in public health. Doing so may also improve our ability to reduce violence at the community and societal levels. By staying abreast of the ever-changing tactics used by criminals, authorities can improve public safety while preserving the integrity of the legal system. This is due to the possibility that criminals who are adept at "beating the system" will grow increasingly self- assured in their capacity to carry out crimes without being caught. The thrill and challenge of avoiding the law may also encourage some people to carry on with their illicit activities.

It is clear that higher malevolent creativity behaviour in daily life appears only in those convicted of non-violent crimes, but we do not know the mechanism underlying this result or why the violent prisoners obtain lower malevolent creativity behaviour (Szabó et al., 2022; Perchtold-Stefan et al., 2024). This could be a great topic for future research to discover the underlaying mechanisms that enhance those inmates who do not commit violent crimes to engage in behaviours that are creatively harmful.

These studies add to a more nuanced understanding of the underlying mechanisms of impulsive tendencies in people with different personality profiles by clarifying the differential manifestations of impulsive behaviors across different dark personality traits. The identification of

particular impulsive characteristics linked to psychopathy and Machiavellianism highlights the necessity of customized interventions and focused evaluations that take into account the distinct behavioral patterns and risk factors connected to various dark personality theories. It also clarifies the various ways that impulsive behaviors can appear in relation to psychopathy, Machiavellianism, and other related personality theories. The relevance of our results may lay in the risk assessment, clinical practice, and intervention strategies targeted at treating impulsive behaviors and related issues in people with dark personality traits. Understanding malevolent creative behaviour and its consequences will be crucial for future efforts, which could include developing targeted therapies and rehabilitation programmes that deal with the root causes of criminality. The possibility of reoffending after release from custody can be decreased by authorities by addressing these factors through targeted rehabilitation programs. By examining the ways in which convicted individuals use cunning to deceive, manipulate, or harm others, our proposal seeks to improve our understanding of the potential risks these individuals may pose. Authorities may use this information to detect and address security flaws such as the introduction of forbidden items into jails and the trading of goods, among other things. Additionally, it might guide risk assessment techniques in prisons. Staff members can enhance the safety of both prisoners and themselves by proactively identifying and mitigating potential risks associated with artistically malevolent inmates. They can keep one step ahead of criminals by understanding the guiding concepts of this behaviour and way of thinking.

When researchers look at how inmates use their creativity for bad purposes, they can identify trends and risk factors that contribute to recidivism. They have the authority to put an end to any unlawful acts or plans that endanger the physical safety of prisoners or staff members, as well as those that cause significant harm to the facility where they are being held. Information on relationships derived from malevolent creativity and other factors such as self-esteem, self-efficacy, or personality traits can be gathered in order to develop targeted intervention strategies to address the root causes of malevolent behaviors among prisoners.

Comprehending the psychological foundations of malevolent creativity

could potentially facilitate the creation of tailored therapeutic approaches that address the distinct requirements and issues faced by prisoners. Interventions that focus on these underlying psychological factors have the potential to be more effective in reducing the likelihood of future criminal behaviour and encouraging long-term behaviour change.

Researching law enforcement officers' malevolent creativity could be helpful for the authorities to create policies that encourage accountability, transparency, and moral behavior. In addition, the malevolent resourcefulness of law enforcement officials may result in grave breaches of trust, misconduct, and corruption, all of which diminish the public's faith in the judicial system. Over time, this can preserve law enforcement's credibility by assisting in the prevention and correction of misbehavior. Justice establishments can create systems to detect, prevent, and discipline unethical behaviour among their staff members by looking for patterns in the tactics used by law enforcement officials who exhibit malevolent creativity. Studying malevolent creativity has advantages like this. Police officers' credibility and integrity are largely dependent on their ability to uphold law and order, which is their assigned task. Police officers can identify and withstand the temptation to act unethically with the support of improved supervision and training.

By cultivating an integrity culture and building a solid ethical foundation, criminal justice organisations can lower the risk of misconduct and corruption among their employees. Establishing and maintaining public trust is a necessary precondition for society's reliance on efficient law enforcement and community involvement. Police organisations should address issues of malicious creativity and unethical conduct within their ranks in order to strengthen relationships with the community and increase cooperation and support for crime prevention initiatives.

Researchers can create proactive early intervention strategies to stop people from transgressing moral standards by identifying the thought processes and personality traits linked to malevolent creativity. By recognising signs or expressions of malevolent creativity, professionals in disciplines such as psychology, law enforcement, and social work can make more precise assessments about the probability of individuals engaging in hazardous or illegal activities.

On the other hand, understanding how the general public becomes creatively malevolent may help academics create preventive measures that reduce the possibility of destructive actions. Findings from studies on malevolent creativity in a healthy population can be used to inform the development of laws and regulations that uphold moral behavior and guard against impairment.

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6. APPENDIX

EPKEB
Egyesített Pszichológiai Kutatásetikai Bizottság

EGYESÍTETT PSZICHOLÓGIAI KUTATÁSETIKAI BIZOTTSÁG

Etikai engedély

Az Egyesített Pszichológiai Kutatásetikai Bizottság (EPKEB) az alábbi kutatási tervet etikai szempontból értékelte, és annak végrehajtásához a(z) *Debreceni Egyetem, Pszichológiai Intézet, Pedagógiai Pszichológiai Tanszék* megbízásából hozzájárul.

Kutató: Szabó (Debreceni) Enikő
A kutatás felügyelője: Dr. Pataky Nóra
Kutatás címe: A sötétség megvilágítása: személyiségjegyek, kognitív sémák és a rosszindulatú kreativitás kapcsolata
Referencia szám: 2022-74
Engedélyezés dátuma: 2022. május 13.

EPKEB társelnök

Kun Ágota
vagy
Zimmer Márta

6.1. Scales and questionnaires

6.1.1 Demographic questionnaire for inmates – romanian language

Vârsta _____

Condamnare_____ Fapta_____

Număr de frați _____

Număr copii _____

1.Am fost crescut de	a)ambii părinţi naturali	b)mama şi tată adoptiv	c)doar mamă	d)doar tată	e)orfan/pe stradă/institu ționalizat
2.Am avut comportamente nepotrivite şi nu am respectat regulile	a) din şcoala primara	b)din adolescenţă	c)la maturitate	d) nu e cazul	
3.În copilărie am fost victimă a abuzului	a)fizic	b)emoţional	c)ambele	d)sexual	e)nu este cazul
4.Prima condamnare a fost:	a)înainte de 16 ani	b)între 16 şi 20 ani	c)dupa 20 ani		
5.Înainte de 18 ani am comis	a)furturi	b)tâlharii	c)vătămare corporala sau crimă	d)alte infracţiuni	e)nu e cazul
6.Până în acest moment am comis	a)o singură infracţiune	b)între una şi trei infracţiuni	c)între 3 şi 5 infracţiuni	d)mai mult de 5 infracţiuni	
7.În acest moment sunt condamnat pentru o infracțiune	a)pentru folosirea violenței		b) fără folosirea violenței		
8.Ultima şcoală absolvită este:	a)primară (1-4 clase)	b)gimnazială (5-8 clase)	c) liceală (9-12 clase)	d)şcoala profesională sau de meserii	e)studii superioare
9.Am mai fost încarcerat:	a)prima dată încarcerat	b)între una şi trei încarcerări	c)mai mult de 3 încarcerări		
10.Statutul marital	a)căsătorit	b)necăsătorit	c)concubinaj	d)divorţat	evăduv
11.Starea financiară /lună	a)sub salar minim pe economie	b)1200-3000	c)3000-5000	d)5000-7000	E)mai mare de 7000
12.De-a lungul vieţii am avut	a)un singur loc de muncă	b)mai multe locuri de muncă	c)nici un loc de muncă		
13.Tentative de sinucidere	a)Nu am avut niciodată	b)am avut o tentative	c)am avut două tentative	d)am avut mai multe de 2 tentative	
14. Automutilare	a)Nu am avut niciodată	b)am avut o automutilare	c)am avut două automutilări	d)am avut mai multe de 2 automutilări	
14.Consum de alcool	a)niciodată	b)rar/ ocazional	c)frecvent	d)dependență	
15.Consum de droguri	a)niciodată	b)rar/ ocazional	c)frecvent	d)dependență	

6.1.2. Demográfiai Kérdőiv - Demographic questionnaire for inmates –hungarian language

Életkor _____

Itélet_____Büntetés mértéke _____

Testvérek száma _____

Gyermekek száma _____

1. Ki nevelt fel	a) mindkét természetes szülő	b) örökbefogadó anya és apa	c) csak anya	d) csak apa	e) árvaház / utca
2. Nem megfelelően viselkedtem, és nem tartottam be az általános viselkedési szabályokat	a) elemi iskolában	b) serdülőkorban	c) felnőttkorban		
3. Gyerekként bántalmazás áldozata lettem	a) fizikailag	b) érzelmi	c) mindkettő	d) szexuális	e) nem vonatkozik rám
4.Első itélet:	a)16 éves kor előtt	b) 16 és 20 éves kor között	c) 20 éves kor után		
5.18 éves kor előtt elkövettem:	a)lopást	b)rablás testisértéssel	c)gyilkosság, testi sértést	d)más fajta büncselekményt	
6.Eddig a pillanatig elkövettem	a)1 bűncselekményt	b)1-3 bűncselekményt	c)3 — 5 bűncselekményt	d)több mint 5 bűncselekményt	
7.Most el vagyok itélve egy olyan bűncselekményért amit	a)agresszióval követtem el		b) agresszió nélkül követtem el		
8.Utolsó elvégzett iskola	a)elemi (1-4 osztály)	b)közép (5-8 osztály)	c) liceum (9-12 osztály)	d)szakiskola	e)egyetem
9.Be voltam zárva a börtönbe	a)most először	b)1-3 bebörtönzés	c)több mint 3 bebörtönzés		
10.Házas állapot	a)házas	b)agglegény	c)élettársi viszony	d)elvált	e) özvegy
11.Gazdasági állapot	a)minimálber alatt	b)1200-3000 lej	c)3000-5000 lej	d)5000-7000 lej	E)több mint 7000 lej
12.Életem soran volt	a)1 munkahelyem	b)több munkahelyem	c)soha nem volt munkahelyem		
13.Ongyilkossagi kiserlet	a)nem volt soha	b)volt 1 kiserletem	c)volt 2 kiserletem	d)tobb mint 2 kiserletem volt	
14. Öncsonkitas	a)nem volt soha	b)volt 1	c)volt 2	d)tobb mint 2	
14.Alkoholfogyasztas	a)soha	b)ritkan, alkalmankent	c)gyakran	d)fuggoseg	
15.Drogfogyasztas	a)soha	b)ritkan, alkalmankent	c)gyakran	d)fuggoseg	

6.1.3. Demographic questionnaire for normal population/and police officers – romanian language

Vârsta _____

Număr de frați _____

Număr copii _____

1.Am fost crescut de	a)ambii părinţi naturali	b)mama şi tată adoptiv	c)doar mamă	d)doar tată	e)orfan/pe stradă/instituționalizat
2.Am avut comportamente nepotrivite şi nu am respectat regulile	a) din şcoala primara	b)din adolescenţă	c)la maturitate	d) nu e cazul	
3.În copilărie am fost victimă a abuzului	a)fizic	b)emoţional	c)ambele	d)sexual	e)nu este cazul
4.Prima condamnare a fost:	a)înainte de 16 ani	b)între 16 şi 20 ani	c)dupa 20 ani	e.)nici o condamnare	
5.Ultima şcoală absolvită este:	a)primară (1-4 clase)	b)gimnazială (5-8 clase)	c) liceală (9-12 clase)	d)şcoala profesională sau de meserii	e)studii superioare
6.Statutul marital	a)căsător it	b)necăsătorit	c)concubinaj	d)divorţat	evăduv
7.Starea financiară /lună	a)sub salar minim pe economie	b)1200-3000	c)3000-5000	d)5000-7000	E)mai mare de 7000
8.De-a lungul vieţii am avut	a)un singur loc de muncă	b)mai multe locuri de muncă	c)nici un loc de muncă		
9.Tentative de sinucidere	a)Nu am avut niciodată	b)am avut o tentative	c)am avut două tentative	d)am avut mai multe de 2 tentative	
10. Automutilare	a)Nu am avut niciodată	b)am avut o automutilare	c)am avut două automutilări	d)am avut mai multe de 2 automutilări	
11.Consum de alcool	a)niciodată	b)rar/ ocazional	c)frecvent	d)dependență	
12.Consum de droguri	a)niciodată	b)rar/ ocazional	c)frecvent	d)dependență	

6.1.4. Demografiai Kérdőiv – Demographic questionnaire for normal population/and police officers - hungarian language

Életkor _____ NEME FÉRFI

Testvérek száma _____

Gyermekek száma _____

1. Ki nevelt fel	a) mindkét természetes szülő	b) örökbefogadó anya és apa	c) csak anya	d) csak apa	e) árvaház /
2. Nem megfelelően viselkedtem, és nem tartottam be az általános viselkedési szabályokat	a) elemi iskolában	b) serdülőkorban	c) felnőttkorban		
3. Gyerekként bántalmazás áldozata lettem	a) fizikailag	b) érzelmi	c) mindkettő	d) szexuális	e) nem vonatkozik rám
4.Első itélet:	a)16 éves kor előtt	b) 16 és 20 éves kor között	c) 20 éves kor után	d.) egyszer sem elitelve	
5.Utolsó elvégzett iskola	a)elemi (1-4 osztály)	b)közép (5-8 osztály)	c) liceum (9-12 osztály)	d)szakiskola	e)egyetem
6.Házas állapot	a)házas	b)agglegény	c)élettársi viszony	d)elvált	e) özvegy
7.Gazdasági állapot	a)minimálber alatt	b)1200-3000 lej	c)3000-5000 lej	d)5000-7000 lej	E)több mint 7000 lej
8.Életem soran volt	a)1 munkahelyem	b)több munkahelyem	c)soha nem volt munkahelyem		
9.Ongyilkossagi kiserlet	a)nem volt soha	b)volt 1 kiserletem	c)volt 2 kiserletem	d)tobb mint 2 kiserletem volt	
10. Öncsonkitas	a)nem volt soha	b)volt 1	c)volt 2	d)tobb mint 2	
11.Alkoholfogyasztas	a)soha	b)ritkan, alkalmankent	c)gyakran	d)fuggoseg	
12.Drogfogyasztas	a)soha	b)ritkan, alkalmankent	c)gyakran	d)fuggoseg	

6.1.5. Chestionarul comportamentului creativ malefic (MCBS)

Vă prezentăm mai jos 13 enunțuri despre gânduri. Vă rugăm să citiți cu atenție fiecare enunț și indicați cu X pe foaia de răspuns cât de des aveți următoarele gânduri în diverse situații ale vieții.

		0- NICIODATĂ	1-DE PUȚINE ORI	2- CÂTEODATĂ	3- DES	4-DE OBICEI
1.	Cât de des te gândești la idei de răzbunare, atunci când ai fost tratat cu nedreptate?	**0**	**1**	**2**	**3**	**4**
2.	Cât de des ai idei referitoare la modalitățile noi prin care poți pedepsi oamenii?	**0**	**1**	**2**	**3**	**4**
3.	Cât de des ai idei legate de modalitatea de a suprima persoanele care îți stau în cale?	**0**	**1**	**2**	**3**	**4**
4.	Cât de des te angajezi într-o formă originală a sabotajului?	**0**	**1**	**2**	**3**	**4**
5.	Cât de des ai gânduri să te autorănești?	**0**	**1**	**2**	**3**	**4**
6.	Cât de des te gândești la strategii despre rănirea altora în lumea această aspră?	**0**	**1**	**2**	**3**	**4**
7.	Cât de des inventezi minciuni pentru a simplifica soluția unei probleme?	**0**	**1**	**2**	**3**	**4**
8.	Cât de des te gândești la scuze pentru ați justifica fărădelegile (greșelile)?	**0**	**1**	**2**	**3**	**4**
9.	Cât de des spui minciuni fără să te îngrijorezi că vei fi închis?	**0**	**1**	**2**	**3**	**4**
10.	Cât de des te gândești la modalitățile de a ascunde nelegiuri față de ceilalți?	**0**	**1**	**2**	**3**	**4**
11.	Cât de des te gândești la cum să faci farse celorlalți?	**0**	**1**	**2**	**3**	**4**
12.	Cât de des îți bați joc pentru a te răzbuna?	**0**	**1**	**2**	**3**	**4**
13.	Cât de des te gândești la idei pe marginea regulilor , atunci când modalitățile convenționale nu funcționeză.	**0**	**1**	**2**	**3**	**4**

6.1.6. Rosszindulatú Kreatív Viselkedés Skála (MCBS) – hungarian language

Az alábbiakban 13 mondatot olvashat felmerülő gondolatokkal kapcsolatban. Kérjük olvassa el figyelmesen mindegyik mondatot, majd jelölje X-el milyen gyakorisággal vannak jelen ezek a gondolatok az élete különböző helyzeteiben!

		0-egyáltalán nem	1-ritkán	2-néha	3-sokszor	4- nagyon gyakran
1.	Milyen gyakran gondol bosszúra, amikor igazságtalanul viselkednek Önnel?					
2.	Milyen gyakran vannak újszerű gondolatai arról, hogyan tudna másokat megbüntetni?					
3.	Milyen gyakran jutnak eszébe gondolatok arról, hogy távolítsa el azokat, akik az útjában állnak?					
4.	Milyen gyakran vesz részt munkafolyamatok, szabályok szándékos hátráltatásában, elodázásában, megtagadásában?					
5.	Milyen gyakran vannak önsértéssel kapcsolatos gondolatai?					
6.	Milyen gyakran gondolol olyan stratégiákra, melyekkel bántani tudna másokat, ebben a kemény világban?					
7.	Milyen gyakran hazudik annak érdekében, hogy leegyszerűsítse a problémákat?					
8.	Milyen gyakran gondol olyan kifogásokra, amivel igazolni tudja a helytelen viselkedésédet?					
9.	Milyen gyakran hazudik anélkül, hogy aggódna amiatt, hogy leleplezik?					
10.	Milyen gyakran vannak olyan ötletei, melyekkel eltitkolhatja mások előtt a helytelen viselkedését?					
11.	Milyen gyakran vannak ötletei azzal kapcsolatban, hogyan tudna tréfát űzni másokból?					
12.	Milyen gyakran űz tréfát másokból bosszúból?					
13.	Milyen gyakran vannak olyan gondolatai, melyek a törvényesség határát súrolják, mikor a hagyományos módszerek nem működnek?					

6.1.7. Malevolent Creativity Test (MCT) – romanian language

Stimate participant!

Vă mulțumim că ați acceptat să participați la acest test. Colectarea datelor va fi complet anonimă, iar datele vor fi utilizate numai în scopuri științifice. Răspunsurile dumneavoastră nu vor fi legate în niciun fel de detaliile dumneavoastră personale. Vă rugăm să lucrați la sarcină cât mai bine posibil.

În viața de zi cu zi, se întâmplă adesea ca alți oameni să ne trateze incorect sau să manifeste un comportament răutăcios față de noi, ceea ce ne poate determina să devenim furioși. Uneori ne gândim apoi la modalități în care putem pedepsi acești oameni sau să ne răzbunăm pe ei pentru a le învăța o lecție. Aceste idei rău intenționate pot fi și foarte creative.

Acesta este exact despre ce este vorba în acest test □

Testul următor prezintă șase scenarii scurte care descriu situații în care alte persoane sunt nedreapte sau chiar răutăcioase cu tine. Sarcina ta este să generezi cât mai multe idei originale cum te-ai putea răzbuna pe acești oameni sau cum i-ai putea sabota.

Ideile originale sunt idei creative și unice și nu ar veni cu ușurință în minte tuturor. De asemenea, poți numi idei care nu sunt cu adevărat tipice pentru tine, dar la care alți oameni s- ar putea gândi. Vă rugăm să vă eliberați geniul malefic în această sarcină și să încercați să veniți cu multe idei creative cum să pedepsiți/sabotați și să vă răzbunați pe alții □

Important: Vă rugăm să încercați și să găsiți cât mai multe și cât mai ORIGINALE idei posibil cum vă puteți răzbuna pe alții sau cum ați putea sabota pe alții!

Pune-te în următoarele situații și încearcă să-ți imaginezi în mod viu că ți se întâmplă.

1. Aplicați pentru un nou loc de muncă în compania dvs. care vine cu mult mai mulți bani și beneficii și care vă interesează cu adevărat. Din întâmplare ai aflat că și un coleg neplăcut de- al tău vrea să aplice pentru post. Acest coleg a spus minciuni despre tine în trecut care te-au costat deja o promovare. Acum vrei să-l împiedici să-ți ia o altă slujbă.

Cum ai putut sa-l sabotezi pe acest coleg?

_____

_____

2. De ceva vreme cochetezi cu cineva din cercul tău de prieteni. Când vrei să-i întrebi în sfârșit la o întâlnire, afli că au deja planuri cu o altă persoană. Această persoană are o reputație foarte proastă și a distrus deja una dintre relațiile tale în trecut. Vrei să împiedici această persoană să interfereze din nou cu relațiile tale.

Cum ai putut sabota această persoana?

_____

_____

3. Ai economisit o vreme pentru a putea, în sfârșit, să-ți cumperi o carte foarte scumpă. Tocmai când sunteți pe cale să intri în cantina de la locul tău de muncă, un coleg de-al tău se lovește din greu de tine și își vărsă toată cafeaua pe noua ta carte. În loc să-și ceară scuze, acel coleg te mustră să fii mai atent data viitoare și merge mai departe, lăsându-te pe tine și cartea ta complet udați. Vrei să-i dai o lecție acelui coleg.

Cum ai putea să te răzbuni pe acel coleg?

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4. Întrucât trebuie să studiezi pentru un examen important în weekend, ți-ai cerut colegei de cameră să petreacă o perioadă de liniște în apartamentul nostru comun. Deși te-au dezamăgit destul de des în trecut, speri că de data aceasta, își vor ține promisiunea de a nu invita alte persoane.

Înainte de weekend, doar întâmplător, auzi de la unul dintre cunoscuții tăi că colegul tău de cameră a anunțat o petrecere uriașă în apartamentul tău. Te-ai săturat și vrei să-i dai o lecție colegului tău de cameră.

Cum ai putea să te răzbuni pe acel coleg de cameră?

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5. Vecinul tău îți cere să-l ajuți la renovarea apartamentului lor și se oferă să te plătească pentru necazurile tale. Din moment ce nu ai bani în prezent, ești de acord. După ce lucrarea este terminată, le ceri plata pe care au promis-o. Cu toate acestea, vecinul tău insistă că un astfel de acord nu a avut loc niciodată și doar ți-ai imaginat totul.

Cum ai putea să te răzbuni pe aproapele tău?

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6. Cineva ți-a furat mâncarea din frigiderul comun de la locul tău de muncă, făcându-ți să ratezi prânzul de multe ori până acum. Bănuiești un anumit coleg și chiar l-ai prins o dată cu cutia ta de prânz în mână. Dar în loc să-și ceară scuze, acel coleg pur și simplu ți-a zâmbit și ți-a spus că nu li se va întâmpla nimic. Nici să te plângi șefului tău nu a dat niciun rezultat, din moment ce el consideră această problemă o banalitate. Vrei să-i înveți o lecție acestui coleg.

Cum ai putea să te răzbuni pe acel coleg?

6.1.8. Malevolent Creativity Teszt (MCT)– hungarian language

A mindennapi életben gyakran előfordul, hogy mások méltánytalanul bánnak velünk, vagy rosszindulatú magatartást tanúsítanak velünk szemben, amitől dühösek lehetünk. Néha elgondolkozunk azon, hogyan büntethetnénk meg ezeket az embereket, vagy hogyan állhatnánk bosszút rajtuk, hogy megleckéztessük őket. Ezek a rosszindulatú ötletek nagyon kreatívak is lehetnek.

Ez a teszt pontosan erről szól

A következő teszt hat rövid helyzetet tartalmaz, amelyekben mások igazságtalanok vagy akár gonoszak Önnel. Az Ön feladata, hogy minél több eredeti ötletet találjon, hogyan állhat bosszút ezeken az embereken, vagy hogyan tudná akadályozni őket.

Az eredeti ötletek olyanok, amelyek kreatívak és egyediek, és nem jutnának könnyen mindenki eszébe. Olyan ötleteket is megnevezhet, amelyek nem igazán jellemzőek Önre, de másoknak eszébe juthat. Kérem, engedje szabadon "gonosz zsenijét" ebben a feladatban, és próbáljon sok kreatív ötletet kitalálni, hogyan lehet megbüntetni/akadályozni másokat és bosszút állni másokon.

Fontos: Kérjük, próbáljon meg minél TÖBB és minél EREDETIBB ötletet találni, hogyan állhat bosszút másokon, vagy hogyan akadályozhat másokat!

Képzelje magát a következő helyzetekbe, és próbálja élénken beleélni magát a szituációkba!

1. Ön jelentkezik egy új állásra egy cégénél, amely lényegesen több pénzzel és juttatással jár, és amely valóban érdekli. Véletlenül megtudja, hogy egy kellemetlen kollégája is jelentkezni szeretne a pozícióra. Ez a kolléga olyan hazugságokat mondott Önről a múltban, amelyek miatt már elmaradt egy előléptetése. Most meg akarja akadályozni, hogy újabb munkát vegyen el Öntől.

Hogyan tudná akadályozni ezt a kollégát?

_____

_____

2. Már egy ideje flörtöl valakivel a baráti körében. Amikor végre randevúzna vele, rájön, hogy már vannak tervei egy másik személlyel is. Ennek a személynek nagyon rossz a híre, és a múltban már tönkretette az Ön egyik kapcsolatát. Meg akarja akadályozni, hogy ez a személy újra beleavatkozzon az alakuló kapcsolatába.

Hogyan tudtá akadályozni ezt az embert?

_____

_____

3. Spórolt egy ideig, hogy végre vásárolhasson magának egy nagyon drága könyvet. Épp amikor belép a munkahelyén az ebédlőbe, egy kollégája erőteljesen beleötközik Önbe, és az összes kávéját ráönti az új könyvére.
Ahelyett, hogy bocsánatot kérne ez a kolléga arra kéri, hogy legközelebb jobban figyeljen, és továbbvonult. Az Ön könyve teljesen átázott. Meg akarja leckéztetni a kollégát.

Hogyan állhatna bosszút a kollégán?

_____

_____

4. *Mivel hétvégén fontos vizsgára kell tanulnia, ezért arra kérte a szobatársát hogy ezt vegye figyelembe a közös albérletükben. Bár korábban elég gyakran csalódást okozott Önnek, reméli, hogy ezúttal betartja ígéretét, hogy nem hív meg másokat. Hétvége előtt véletlenül azt hallotta egyik ismerősétől, hogy lakótársa óriási bulit szervez a lakásosban. Elege van, és meg akarja leckéztetni a lakótársát.*

Hogyan állhatna bosszút a lakótársán?

5. *Szomszédja kéri, hogy segítsen neki a lakása felújításában, és felajánlja, hogy kifizeti a munkáját. Mivel jelenleg kevés a pénze, beleegyezik. A munka elvégzése után kéri tőle az ígért fizetést. A szomszédja azonban ragaszkodik ahhoz, hogy ilyen megállapodás soha nem történt meg, és Ön csak képzelte az egészet.*

Hogyan állhatna bosszút a szomszédon?

6. *Valaki már többször ellopta az ételét a munkahelyeden lévő közös hűtőből, ami miatt nem tud ebédelni. Egy bizonyos kollégát gyanúsít, és el is kapta őt az ebédlődobozoddal a kezében. De ahelyett, hogy bocsánatot kért volna, egyszerűen Önre vigyorgott, és azt mondta, hogy nem fog vele történni semmi. A főnöküknek tett panasz sem hozott eredményt, mivel ezt a problémát semmiségnek tartja. Meg akarja leckéztetni ezt a kollégát.*

Hogyan állhatna bosszút a kollégán?

6.1.9. MACH IV- Machiavellianism – romanian language

În ce măsură vă descriu următoarele enunțuri în mod acurat pe Dumneavoastră? Vă rugăm să indicați măsura în care sunteți de acord sau sunteți în dezacord cu aceste enunțuri, prin selectarea unui număr asociat cu itemii prezentați, răspuns care să reflecte opinia Dumneavoastră.

Nr. crt.		1 dezacord puternic	2 dezacord	3 neutru	4 acord	5 acord puternic
1.	Niciodată să nu spui motivul adevărat pentru care ai făcut un lucru, decât dacă îți e folositor	**1**	**2**	**3**	**4**	**5**
2.	Cel mai bun mod de a trata oamenii este de a le spune ceea ce vor ei să audă	**1**	**2**	**3**	**4**	**5**
3.	O persoană ar trebui să acționeze numai dacă este sigură că acțiunea sa este corectă din punct de vedere moral	**1**	**2**	**3**	**4**	**5**
4.	Majoritatea oamenilor sunt totuși buni și amabili.	**1**	**2**	**3**	**4**	**5**
5.	Este mai sigur să presupui că toți oamenii au o notă de răutate care va ieși la suprafață când va avea ocazia	**1**	**2**	**3**	**4**	**5**
6.	Onestitatea este cea mai bună manieră de a proceda în toate situțiile	**1**	**2**	**3**	**4**	**5**
7.	Nu există nicio scuză pentru a minți pe cineva.	**1**	**2**	**3**	**4**	**5**
8.	În general, oamenii nu vor lucra din greu decât dacă sunt obligați	**1**	**2**	**3**	**4**	**5**
9.	Până la urmă, este mai bine să fii umil și onest decât să fii important și necinstit.	**1**	**2**	**3**	**4**	**5**

10.	Când rogi pe cineva să facă ceva pentru tine, este mai bine să spui motivul adevărat pentru care îi ceri asta decât să dai motive care au o mai mare “greutate”	**1**	**2**	**3**	**4**	**5**
11.	Majoritatea oamenilor care reușesc în viață, au trăit corect și moral.	**1**	**2**	**3**	**4**	**5**
12.	Oricine are încredere completă în altcineva, caută necazuri/ încurcături	**1**	**2**	**3**	**4**	**5**
13.	Cea mai mare diferență dintre majoritatea infractorilor și restul lumii este că infractorii sunt atât de proști încât au fost prinși.	**1**	**2**	**3**	**4**	**5**
14.	Majoritatea oamenilor sunt curajoși	**1**	**2**	**3**	**4**	**5**
15.	Este înțelept să flatezi oamenii importanți	**1**	**2**	**3**	**4**	**5**
16.	Este posibil să fii bun din toate punctele de vedere	**1**	**2**	**3**	**4**	**5**
17.	P.T. Barnum s-a înșelat când a spus că în fiecare minut se naște un fraier.	**1**	**2**	**3**	**4**	**5**
18.	Este greu să ajungi în fața fără să faci compromisuri	**1**	**2**	**3**	**4**	**5**
19.	Oamenii care suferă de boli incurabile ar trebuie să aibă posibilitatea alegerii eutanasierii	**1**	**2**	**3**	**4**	**5**
20.	Majoritatea oamenilor uită mai ușor pierderea unui părinte decât pierderea unei proprietăți.	**1**	**2**	**3**	**4**	**5**

6.1.10. MACH IV –Machiavellianism - english language

To what extent do each of the following statements accurately describe you? Please indicate the degree to which you personally agree or disagree with each of the following statements by choosing a number from the scale below that reflects your opinion.

Nr. crt.		1=strongly disagree	2=disagree	3=neutral	4=agree	5=strongly agree
1.	Never tell anyone the real reason you did something unless it is useful to do so.					
2.	The best way to handle people is to tell them what they want to hear.					
3.	One should take action only when sure it is morally right					
4.	Most people are basically good and kind.					
5.	It is safest to assume that all people have a vicious streak and it will come out when they are given a chance.					
6.	Honesty is the best policy in all cases.					
7.	There is no excuse for lying to someone else.					
8.	Generally speaking, people won't work hard unless they're forced to do so.					
9.	All in all, it is better to be humble and honest than to be important and dishonest					
10.	When you ask someone to do something for you, it is best to give the real reasons for wanting it rather than giving reasons which carry more weight					
11.	Most people who get ahead in the world lead clean, moral lives.					
12.	Anyone who completely trusts anyone else is asking for trouble					
13.	The biggest difference between most criminals and other people is that the criminals are stupid enough to get caught.					
14.	Most people are brave.					
15.	It is wise to flatter important					
	people.					

16.	It is possible to be good in all respects.					
17.	P.T. Barnum was wrong when he said that there's a sucker born every minute.					
18.	It is hard to get ahead without cutting corners here and there					
19.	People suffering from incurable diseases should have the choice of being put painlessly to death.					
20.	Most people forget more easily the death of their parents than the loss of their property.					

6.1.11. Hare PCL-R –Psychopathy Checklist – romanian language

Încercuiți scorul adecvat din stânga fiecărui item. Pentru itemii prezentați țineți cont de observațiile prezentate dedesubtul tabelului.

Nu	Poate	Da	Omis	
0	1	2	X	**1. Volubilitate/Farmec superficial** – ești un interlocutor amuzant și distractiv în conversație, ești întotdeauna gata , cu o revenire rapidă și inteligentă, o persoană prea alunecoasă șmecheră, prea amiabilă pentru a fi în întregime credibilă
0	1	2	X	**2. Sentiment grandios al propriei valori** — ești o persoană cu o vedere supradimensionată a propriilor abilități și a valorii de sine. Poți lăsa impresia unui individ lăudăros.
0	1	2	X	**3. Nevoia de stimulare/Înclinație spre plictiseală** – ești o persoană care manifestă o nevoie cronică și excesivă pentru stimulări noi și incitante și o neobișnuită înclinație spre plictiseală. Exprimi un interes puternic în asumarea șansei în ”trăirea vieții la limită”, fiind ”acolo unde este acțiunea”.
0	1	2	X	**4. Minciuna patologică** — ești o persoană pentru care minciuna și înșelăciunea sunt parte caracteristică a interacțiunilor tale cu ceilalți. Ești capabil să fabrici relatări elaborate despre trecutul tău, chiar dacă știi că povestea ta poate fi ușor verificată.
0	1	2	X	**5. Inducere în eroare/ Manipulare** – ești o persoană preocupată de utilizarea înșelăciunii pentru a trișa, a trage de sfoară, frauda sau a-i manipula pe alții. Unele dintre aceste operațiuni sunt elaborte și bine gândite, în timp ce altele sunt destul de simple.
0	1	2	X	**6. Lipsa remușcărilor sau a vinovăției** - ești o persoană care arată o lipsă generală de preocupare pentru consecințele negative pe care acțiunile sale, atât infracționale cât și noninfracționale, le au asupra altora. Ești mai preocupat de efectele pe care acțiunile tale le au asupra propriei persoane, decât suferința resimțită de către victime.
0	1	2	X	**7. Afecte superficiale** – ești o persoană incapabilă de a resimți o gamă normală de emoții și de a le resimți la o intensitate corespunzătoare. Manifestarea emoțiilor este, în general dramatică, superficială , de scurtă durată.
0	1	2	X	**8. Indiferență/Lipsă de empatie** – ești o persoană ale cărei atitudini și comportament indică o lipsă profundă de empatie și de o desconsiderare crasă pentru sentimentele, drepturile și bunăstarea altora. Ești preocupat doar de sine în calitate de ”Numărul 1” și îi vezi pe ceilalți ca obiecte ce pot fi manipulate.
0	1	2	X	**9. Stil de viață parazitic -** ești o persoană pentru care dependența financiară față de alții este o parte intenționată a stilului de viață. Cu toate că ai un corp puternic, eviți ferm ocuparea unui loc de muncă remunerat, în schimb, continui să te bazezi pe familie, rude, prieteni, sau asistența socială. Obții ceea ce vrei prezentându-te ca o persoană neajutorată.
0	1	2	X	**10. Control comportamental scăzut –** ești o persoană cu un control inadecvat asupra propriilor comportamente. Poți fi descris ca fiind irascibil sau exaltată. Tinzi să răspunzi la frustrare, eșec, disciplinaă, critică cu un comportament violent sau cu amenințări și abuz verbal. Te superi ușor și devii furios, agresiv sau trivial.
0	1	2	X	**11. Comportament sexual promiscuu –** ești o persoană ale cărei relații sexuale cu alte persoane sunt impersonale, ocazionale sau triviale. Acest lucru poate fi reflectat în legături ocazionale frecvente (”aventuri de o noapte”), selecția nediferențiată a partenerilor sexuali, existența mai multor relații de cuplu (sexuale) în același timp, infidelități frecvente.

0	1	2	X	**12. Probleme comportamentale timpurii –** ești o persoană care a avut probleme serioase de comportament atunci când era copil (ex. vârsta de 12 ani și mai devreme). Aceste probleme pot include minciuna repetată, înșelăciunea, furtul, jaful, incendierea, chiulul, întreruperi ale activităților de la clasă, abuzul de substanțe, vandalism, violență,
				intimidare, fuga de acasă și activități sexuale precoce.
0	1	2	X	**13. Lipsa unor scopuri realiste pe termen lung –** ești o persoană care demonstrează incapacitatea sau lipsa de voință în a formula și urma planuri și obiective realiste pe termen lung. Ai tendința de a trăi de pe o zi pe alta, de a-ți schimba frecvent planurile. Nu te gândești serios la viitor și nici nu îți faci foarte mult griji cu privire la acesta.
0	1	2	X	**14. Impulsivitate –** ești o persoană al cărei comportament este în general impulsiv, nepremeditat și lipsit de reflecție sau anticipație. De obicei, faci lucruri ”sub impulsul momentului” pentru că ”așa simți” sau pentru că îți apare o oportunitate. Este puțin probabil să-ți petreci mai mult timp cântărind argumentele pro și contra pentru o anumită acțiune sau luând în considerare consecințele posibile.
0	1	2	X	**15. Iresponsabilitate –** ești o persoană care în mod obișnuit nu reușești să-și îndeplinească sau să-ți onorezi obligațiile și aranjamentele față de alții. Ai un simț redus al datoriei sau al loialității față de familie, prieteni, angajatori, societate, idei sau cauze sau chiar nu are deloc astfel de loialități.
0	1	2	X	**16. Eșec în acceptarea responsabilității pentru propriile acțiuni –** ești o persoană care nu este în măsură sau nu dorește să își accepte responsabilitatea pentru acțiunila sale (atât infracționale cât și cele noninfracționale) sau pentru consecințele acțiunilor sale. Ai, de obicei, unele scuze pentru comportamentul tău, inclusiv raționalizarea și plasarea vinovăției asupra altora (societatea, familia sa, complicii, victimele, sistemul, etc.)
0	1	2	X	**17. Relații maritale multiple –** ești o persoană care a avut multe relații maritale. Vom defini o relație maritală ca o relație de conviețuire în aceeași gospodărie, care implică un anumit grad de angajament din partea unuia sau a ambilor parteneri. Astfel de relații includ căsătoriile (legale), dar și uniunile consenzuale, parteneriatele heterosexuale și homosexuale.
0	1	2	X	**18. Delicvență juvenilă –** ești o persoană care are un istoric de comportament antisocial grav, ca și adolescent, la vârsta de 17 ani și anterior acesteia. Acest lucru include atât amenzile, cât și infracțiuni penale și civile pentru infracțiuni penale și statutare.
0	1	2	X	**19. Revocarea liberării condiționate –** ești o persoană care, ca și adult, a încălcat termenii eliberării condiționate sau a evadat dintr-o instituție. Încălcări ale termenilor eliberării condiționate includ încălcări tehnice, dar noninfracționale sau noi amenzi sau condamnări în timp ce era învoită, sub supraveghere, monitorizată pentru probațiune, eliberată pe cauțiune, sau sub influența unor ordine de restricție.
0	1	2	X	**20. Versatilitate criminală –** ești o persoană al cărei cazier (înregistrarea infracțiunilor săvârșite) ca și adult implică amenzi sau condamnări pentru multe tipuri de infracțiuni.

6.1.12. HARE PCL-R FORMANYOMTATVÁNY: 2-ik kiadás – hungarian language

Karikázd be a megfelelő pontszámot az egyes tételek bal oldalán. A bemutatott tételeknél vegye figyelembe a táblázat alatti megjegyzéseket.

Nem	Talán	Igen	Hiányzó	
0	1	2	X	**1. Volubility / Felületes báj -** ön egy vicces és szórakoztató beszélgetőpartner, mindig készen áll gyors és intelligens válaszokkal, egy olyan személy, aki túl olykor túl megnyerő és barátságos ahhoz, hogy teljesen hiteles legyen
0	1	2	X	**2. Grandiózus önértékelés –** ön egy olyan személy, aki túlhangsúlyozottan látja saját képességeit és önértékét. Egy hencegő egyéniség benyomását keltheti másokban.
0	1	2	X	**3. A stimuláció igénye / az unalomra való hajlam –** Ön egy olyan személy, aki túlzott igényt mutat új és izgalmas ingerekre, és könnyen elúnja magát. Megragad minden lehetőséget, hogy „a végletekig kiélvezze az életet", „ahol a történés van".
0	1	2	X	**4. Patológiás hazugság –** Ön egy olyan személy, akinek a hazugság és a megtévesztés a másokkal való interakciójának jellemző része. Még akkor is hajlamos a csúsztatásra, ha tudja, hogy a története könnyen ellenőrizhető.
0	1	2	X	**5. Félrevezetés/Manipuláció –** Ön egy olyan személy, aki gyakran folyamodik ahhoz, hogy megtévesszen másokat, csaljon, manipuláljon másokat. E műveletek egy része bonyolult és jól átgondolt, míg mások meglehetősen egyszerűek.
0	1	2	X	**6. A lelkiismeretfurdalás vagy a bűntudat hiánya –** Ön egy olyan személy, aki általánosságban nem törődik azokkal a negatív következményekkel, amelyeket tettei — akár bűnözői, akár nem bűngyelekménnyel kapcsolatos — másokra gyakorolnak. Inkább aggódik a tettei önmagára gyakorolt hatásai miatt, mint áldozatai szenvedései miatt.
0	1	2	X	**7. Felületes hatások –** Ön egy olyan személy, aki képtelen az érzelmek széles tartományát átérezni és megfelelő intenzitással érezni. Az érzelmi megnyilvánulása általában drámai, felületes, rövid életű.
0	1	2	X	**8. Közömbösség / empátia hiánya** – Ön egy olyan személy, akinek attitűdjei és viselkedése az empátia hiányára és mások érzéseinek, jogainak és jólétének durva semmibevételére utal. Ön csak önmagával foglalkozik, és másokat manipulálható tárgyaknak tekint.
0	1	2	X	**9. Élősködő életmód –** ön egy olyan személy, akinek a másoktól való anyagi függőség az életmódjának szándékos része. Még ha megfelelő állapotban is van, határozottan kerüli a munkavégzést, ehelyett továbbra is a családjára, rokonokra, barátokra vagy szociális segítségre támaszkodik. Megkapod, amit akarsz, ha tehetetlen embernek mutatod be magad.
0	1	2	X	**10. Alacsony viselkedési kontroll –** ön egy olyan személy, aki nem tudja megfelelően kontrollálni saját viselkedését. Gyakran indulatos. Hajlamos a frusztrációra, kudarcra, fegyelmezésre, kritikára erőszakos viselkedéssel vagy fenyegetéssel reagálni és verbális bántalmazást is alkalmazni. Könnyen lesz ideges, dühös és agresszív.

0	1	2	X	**11. Promiszkuitás a szexuális viselkedésben –** Ön egy olyan személy, akinek szexuális kapcsolata másokkal személytelen, alkalmi vagy felszínes. Ez megnyilvánulhat gyakori alkalmi kapcsolatokban ("egyéjszakás kalandok"), a szexuális partnerek kiválasztásásának igénytelenségében,
				több (szexuális) kapcsolat egyidejű fennállásában, gyakori hűtlenségben.
0	1	2	X	**12. Korai viselkedési problémák –** Ön egy olyan személy, akinek gyermekkorában súlyos viselkedési problémái voltak (pl. 12 éves vagy idősebb). Ezek a problémák magukban foglalhatják az ismételt hazugságot, csalást, lopást, rablást, gyújtogatást, megfélemlítést, a tanórák zavarását, a kábítószerrel való visszaélést, a vandalizmust, az erőszakot, az otthonról való szökést és a korai szexuális aktivitást.
0	1	2	X	**13. Hosszú távú reális célok hiánya –** Ön egy olyan személy, aki képtelen vagy nem hajlandó reális hosszú távú terveket és célokat megfogalmazni és követni. Hajlamos napról napra élni, és gyakran változtatni a tervein. Nem igazán gondol a jövőre, és nem is aggódik sokat miatta.
0	1	2	X	**14. Impulzivitás** — ön egy olyan személy, akinek viselkedése általában impulzív, kiszámíthatatlan, és hiányzik belőle a reflexió vagy a várakozás. Általában azért tesz dolgokat "a pillanatnyi késztetés hatására", mert "úgy érzi", vagy mert lehetőséget kap. Nem valószínű, hogy több időt tölt egy adott cselekvés előnyeinek és hátrányainak mérlegelésével vagy a lehetséges következmények végigondolásával.
0	1	2	X	**15. Felelőtlenség –** Ön egy olyan személy, aki általában nem teljesíti vagy nem tartja be kötelezettségeit és megállapodásait másokkal szemben. Csekély a kötelességtudata vagy hűsége a családdal, barátokkal, munkaadókkal, társadalommal, ötletekkel vagy ügyekkel szemben, vagy egyáltalán nincs is ilyen felelőségtudata.
0	1	2	X	**16. A saját tetteiért való felelősségvállalás elmulasztása –** Ön egy olyan személy, aki nem tud vagy nem hajlandó felelősséget vállalni tetteiért (mind bűnözői, mind nem bűncslekménnyel kapcsolatos) vagy tettei következményeiért. Általában van néhány kifogása a viselkedésére, beleértve mások (társadalom, család, bűntársak, áldozatok, rendszer stb.) hibáztatását.
0	1	2	X	**17. Több házastársi kapcsolat –** Ön egy olyan személy, akinek sok házastársi/élettársi kapcsolata volt. Ez egy háztartásban élő élettársi kapcsolat, amely az egyik vagy mindkét partner bizonyos fokú elkötelezettségét jelenti. Ilyen kapcsolatok közé tartoznak a (törvényes) házasságok, de az élettársi kapcsolatok, a heteroszexuális és homoszexuális élettársi kapcsolatok is.
0	1	2	X	**18. Fiatalkori bûnözés –** Ön egy olyan személy, akinek tinédzserként, 17 éves korában és korábban súlyos antiszociális viselkedése volt. Ez magában foglalja mind a pénzbírságot, mind a büntető- és polgári jogi cselekményeket a büntetőjogi és törvényes bűncselekmények esetében.

0	1	2	X	**19. Feltételes szabadlábra helyezés visszavonása -** Ön egy olyan személy, aki felnőttként megsértette a feltételes szabadlábra bocsátás feltételeit, vagy megszökött egy intézetből. A feltételes szabadlábra helyezés feltételeinek megsértése magában foglalja a technikai jellegű, de nem büntetőjogi jogsértéseket, pénzbírságokat vagy elmarasztalásokat, a próbaidőre engedést, óvadék ellenében szabadlábra helyezést, vagy lakhelyelhagyási tilalmat.
0	1	2	X	**20. Bűnözői sokoldalúság –** Ön egy olyan személy, akinek a büntetett előélete (az elkövetett bűncselekmények nyilvántartása szerint) felnőttként pénzbírsággal vagy elítéléssel jár számos bűncselekmény miatt.

6.2. Publications

Study publication and indexed (ISI): K., Szabó, & E., Szabó. (2018). The role of personality disorders in burn murders: a multiple case study. Mind, Body, and Behaviour: New trends and prospects in health, education and social sciences, Publisher: Editura Universitară, pp.257-263, ISBN 978-606-28-0845-7, ISSN 2259- 2947. doi:10.5682/9786062806941.

Study publication and indexed (ISI): K., Szabó, & E., Szabó. (2019). The dark side of creativity and personality traits among prisoners: an exploratory study. Modern research in psychology. Rethinking research collaborative, Publisher: Editura Universitară, pp.225-232, ISBN 978-606-28-1033-7, ISSN 2559-2947. doi:10.5682/9786062810337.

Szabó, E.; Körmendi, A.; Kurucz, G.; Cropley, D.; Olajos, T.; Pataky, N. Personality Traits as Predictors of Malevolent Creative Ideation in Offenders**. Behavior Sciences,** 2022, 12, 242. https://doi.org/10.3390/bs12070242

Perchtold-Stefan CM, Fink A, Rominger C, Szabó E, Papousek I. Enjoying others' distress and indifferent to threat? Changes in prefrontal-posterior coupling during social-emotional processing are linked to malevolent creativity. **Brain and Cognition,** 2022 Nov;163:105913. doi: 10.1016/j.bandc.2022.105913. Epub 2022 Sep 7. PMID: 36087513.

Szabó, E.; Pataky, N.; Körmendi, A.: A kreativitás feltáratlan oldala: a rosszindulatú kreatív viselkedés és annak mérőeszközei. **Psychiatria Hungarica,** 2023/1 Szabó. E.: Bevezetés a börtöntanácsadásba In: Fejezetek a tanácsadás alkalmazott területeiből a perinatális időszaktól a felnőttkorig. DUPress

Szabó E., Pataky, N.: A börtöntanácsadás folyamata; tanácsadó és kliens kapcsolat, az esetvezetés szempontjai, (2024). In: Fejezetek a tanácsadás alkalmazott területeiből a perinatális időszaktól a felnőttkorig, DUPress.

Perchtold-Stefan, C. M., Szabó, E., Rominger, C., Fink, A., Opris, L., & Pataky, N. (2024b). Criminal genius or everyday villain? A comparison of malevolent creativity among prisoners, police officers, and the general population. *The Journal of Creative Behavior*. https://doi.org/10.1002/jocb.1512

Szabó, E., Körmendi A., Pataky, N.: A kreativitás pozitív és negatív

aspektusainak a lelki egészségre gyakorolt hatásai.(2024) In: A prevenció és intervenció syempontjai a klinikai pszichológiai kutatásokban, Debreceni Egyetemi Kiadó, DUPress

6.3. Conference participations

- Participated with the abstract at the 20th János Szentágothai Conference and Competition, 14 April 2022, **The dark triad's predictive effect on malevolent creativity among offenders**;
- Participated with at a poster presentation entitled: ***Can evil personality traits be measured in a prison environment? The study of malevolent creative ideation in a romanian inmate population***, at the annual conference of the European Association of Psychology and Law (EAPL), held in Cluj-Napoca, 4- 7th July 2023; along with Nóra Pataky and Attila Körmendi.
- Participated with the article entitled: ***Criminal Genius or Everyday Villain? Malevolent Creativity in Prisoners and the General Population*** at the Session of Personality & Individual Differences at the Marconi Istitute for Creativity (MIC) Conference 2023, held in Trieste, September 11-13th; along with Corinna Perchtold-Stefan, Christian Rominger and Andreas Fink.
- Participated as an audient at the 8th edition of **International conference on multidisciplinary perspectives in the quasi-coercive treatment of criminals** - **SPECTO 2024** - **"Designing the Future of the Criminal Justice System Through the Lens of Technology"**, organized between May 16-17, 2024, at the West University of Timișoara.

6.4. Appreciations

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