

DARK TRIAD PERSONALITY AND PUBLIC ACCEPTANCE OF HOMOSEXUALS AMONG MALAYSIAN ADULTS: INTERDEPENDENT SELF-CONSTRUAL AS A MODERATOR

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Dark Triad Personality and Public Acceptance of Homosexuals among Malaysian Adults: Interdependent Self-Construal as a Moderator

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MURIEL WONG JIE CHEE SEE TONG SHIN

Declaration

We declare that the materials contained in this paper is the end result of our own work and that due acknowledgement has been provided in the bibliography and references to ALL sources be they printed, electronic or personal.

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This research paper attached hereto, entitled "Dark Triad Personality and Public Acceptance of Homosexuals among Malaysian Adults: Interdependent Self-Construal as a Moderator" prepared and submitted by "Muriel Wong Jie Chee and See Tong Shin" in partial fulfillment of the requirements for the Bachelor of Social Science (Hons) Psychology is hereby accepted.

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Abstract

Dark Triad traits - narcissism, Machiavellianism and psychopathy, are associated with marginalizing tendencies. However, little research has been done on darker aspects of personality regarding social attitudes in the Malaysian homosexual community. Additionally, interdependent self-construal is the extent of the self based on one's relationships, group memberships and social roles, which is common in collectivistic culture like Malaysia. Therefore, this study aims to examine the relationship between the Dark Triad and public acceptance of homosexuals among Malaysian adults, while exploring the moderating effect of interdependent self-construal on this relationship. 200 straight, multiracial Malaysians with a mean age of 24.8 \pm 7.6 were recruited using a non-probability sampling method for an Internet-based survey. Respondents were required to respond to the Homosexuality Attitude Scale, the Self-Construal Scale, and the Short Dark Triad. Among the Dark Triad, narcissism was found to correlate negatively with public acceptance of homosexuals. Those with high narcissism are more likely to be homonegative to preserve in-group dignity and avoid social ostracism. However, interdependent self-construal does not moderate the relationship between the Dark Triad and homosexual acceptance. The emergence of individualism and conflicting self-construals may contribute to this result, which challenges the collectivistic norms that are expressed by interdependent self-construal. The results of this study expanded the Malaysian public acceptance of homosexual literature by introducing interdependent selfconstrual as a moderator and utilising the Dark Triad instead of the Big Five. It also unveiled the theoretical intricacies of self-construal that are highly relevant in a culturally rich context. This study also pushes for human rights policies in accordance with the Sustainable Development Goals.

Keywords: public acceptance of homosexuals, dark triad, interdependent self-construal

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List of Abbreviations

Abbreviations	Description
LGBT	Lesbian, gay, bisexual, transgender
LGBTQ	Lesbian, gay, bisexual, transgender, queer or questioning
LGBTQ+	Lesbian, gay, bisexual, transgender, queer or questioning,
	intersex, asexual, and more
GAI	Global LGBT Acceptance Index
HAS	Homosexuality Attitude Scale
SD3	Short Dark Triad Scale
SCS	Self-Construal Scale
ToM	Theory of Mind

Chapter I

Introduction

Background of Study

Social attitudes significantly determine the public acceptance of homosexuals, and the negative perceptions towards homosexual individuals often lead to the inclination of marginalization and exclusion of them in society. There are various local terms such as "songsang", "ah kua", "lelaki lembut", and "pondan" have been used to refer to individuals within the LGBT community in Malaysia (Collin et al., 2021). In Malaysia, the issue of public acceptance of homosexuals is complicated due to the existence of various religions and socio-cultural backgrounds. The majority population of Malaysia consists of Muslims, thus, the resistance towards the homosexuals is particularly noticeable in this cultural and religious context. Politicians' stance guides the public's attitudes towards homosexual issues. This can be seen from the statement made by the Deputy Foreign Minister of Malaysia stating that the LGBTQ lifestyle deviates from Islam, Malaysia's official religion (Palansamy, 2019, as cited in Ahmad et al., 2021). Tun Mahathir Mohamad, Malaysia's ex-Prime Minister, also stated that the country does not accept LGBT and same-sex marriages, unlike Western values (Hesamuddin et al., 2019). Not only that, the oppression towards homosexual individuals also comes from legal barriers that restrict and deny their rights. Under Act 355 of the Syariah Courts, engaging in homosexual conduct can result in severe penalties, including up to three years of imprisonment, a fine of RM5000, and mandatory caning (Abdullah, 2021). On top of this, Ahmad Marzuk Shaary, the Deputy Minister responsible for religious matters, has proposed to amend the Syariah Courts Act (Act 355) in order to empower state Sharia courts to impose more stringent punishments for same-sex conduct than the maximum penalties originally set by federal law (Human Rights Watch,

2021). Hence, it is evident that homosexual individuals in Malaysia experiences a state of oppression and rejection.

Dark Triad personality can be classified into three negative personality domains, which are Machiavellianism, narcissism, and psychopathy. This Dark Triad term was introduced by Paulhus and Williams (2002). According to Paulhus and Williams (2002), the Dark Triad traits were chosen not through stringent criteria but due to their shared malevolent characteristics, including tendencies towards social aversion, self-promotion, emotional detachment, and aggressiveness. There is evidence to show that people high in Machiavellianism, narcissism, and psychopathy are more likely to endorse homophobic and transphobic views, thus posing a lower acceptance towards the LGBT community (Kay & Dimakis, 2022). The reason may be connected to the traits inherent in the Dark Triad, which include a diminished capacity for empathy, a tendency to manipulate others, and a selfcentered admiration that causes them to be incapable of understanding and relating to others' perspectives. For psychopathy specifically, the results from several studies revealed a significant negative correlation between psychopathy and attitudes towards homosexuality (Parrott & Zeichner, 2006; Benu et al., 2022). This could be attributed to individuals with high levels of psychopathy exhibiting a callous nature, leading them to disregard societal norms and values and the well-being of minority groups.

Self-construal refers to how individuals define themselves in relation to others based. Introduced by Markus and Kitayama (1991), there are two modalities of self-construal – independent and interdependent. Individuals with independent self-construal define their sense of self based on their internal attributes such as values, attitudes, and abilities; individuals with interdependent self-construal define their sense of self based on their relationships, group memberships and social roles (Giacomin & Jordan, 2017). Based on past research, interdependent self-construal is common in collectivistic populations (eg. Japan) as culture significantly shapes how a person perceives themselves.

Contextually, Malaysia is a collectivistic culture, with a low score in Individualism (Saidin et al., 2016). As such, connections to others, loyalty, separation of ingroup and outgroup, and "save face" are societal norms. It can manifest as people behaving according to other's expectations rather than their beliefs as it is more comfortable or convenient. In the case of LGBT-related topics, it is almost taboo in Malaysian society due to multiple factors. It manifests as laws and punishments in place which regard same-sex attraction as "against the natural order", and politicians frequently criticizing the concept of homosexuals. It is expected that most citizens will follow that belief and are also against homosexuals. However, in recent years, more and more activist groups and individuals have been advocating for LGBT rights and acknowledgement in Malaysia. Contrary to collectivist belief, some are willing to prioritize their values instead of social connectedness and membership. As such, the relationship between individual personality traits and public acceptance of homosexuals may not be the same for Malaysian adults but may differ depending on their level of interdependence self-construal. Thus, it is important to re-evaluate how Malaysians today stand on homosexuals, whilst observing individual differences, such as the level of interdependent self-construal in collectivistic Malaysia.

Problem Statement

Firstly, the Global LGBT Acceptance Index (GAI), a standard of measurement that gauges a country's average societal attitude toward LGBT individuals based on public beliefs and attitude (Flores, 2019). In Malaysia, there has been a gradual increase in acceptance over the years, moving from the 102nd rank in 2000-2003 to the 89th rank in 2014-2017 among the 174 nations. However, it is worth noting that the GAI decreased from 4.4 to 4.2 during this period. Additionally, according to the findings of the World Values Survey, Malaysia is

still one of the countries in Southeast Asia that holds a significant level of unfavourable attitudes towards homosexuality, with a reported rate of 58.7% (Manalastas et al., 2017). Therefore, a lingering question remains as to whether Malaysians are currently becoming more inclusive or resistant towards the homosexual community.

Secondly, there are several knowledge gaps identified regarding this scope of studies. Among them, past research has focused on how personality is associated with attitudes towards different marginalized social groups (Ekehammar & Akrami, 2003; Ekehammar & Akrami, 2007; Lin & Alvarez, 2020; Parkins et al., 2006; Sibley & Duckitt, 2008; Wang et al., 2019; Case et al., 2008). However, few have delved into the darker aspects of personality regarding social attitudes on the homosexual community. Moreover, in Malaysian literature, studies on LGBT-related topics heavily focus on variables such as religiosity, discrimination, mental health disorders, disease prevalence and such. As a result, the current body of literature is oversaturated with similar findings.

Thirdly, there are several studies conducted on the Dark Triad traits and attitudes towards homosexuality in the Western context, but very limited in the non-Western context (Benu et al., 2022; Kay & Dimakis, 2022; Nappa et al., 2019; Parrott & Zeichner, 2006). This shift in cultural orientation should be studied extensively, as the findings of Western studies may not apply to non-Western populations. Remarkably, the relationship between the Dark Triad and public acceptance of homosexuality remains undiscovered in the Malaysian context.

Fourthly, from previous research findings, one interesting aspect to note regarding the Dark Triad and attitude towards homosexuality is that the results were inconsistent across various studies (Benu et al., 2022; Kay & Dimakis, 2022). According to Benu et al. (2022), there are no significant correlations between Machiavellianism or narcissism and individuals' attitudes toward homosexuality. However, Kay and Dimakis (2022) reported that there are

associations between Machiavellianism, psychopathy, and narcissism with homophobia and transphobia. From this, it is still unclear whether Machiavellianism, psychopathy, and narcissism are negatively associated with attitudes towards homosexuals. Therefore, the present study hopes to provide various insights and address this inconsistency.

Research Question

RQ1 – Does Dark Triad (Machiavellianism, narcissism and psychopathy) negatively associate with public acceptance of homosexuals?

RQ2 – Does interdependent self-construal moderate the relationship between Dark Triad (Machiavellianism, narcissism and psychopathy) and public acceptance of homosexuals?

Research Objective

RO1 – To examine the negative relationship between the Dark Triad (narcissism, Machiavellianism, and psychopathy) and public acceptance of homosexuals.

RO2 – To explore the moderating effect of interdependent self-construal on the relationship between the Dark Triad (narcissism, Machiavellianism, and psychopathy) and public acceptance of homosexuals.

Hypothesis

 H_{1a} – Machiavellianism is negatively associated with public acceptance of homosexuals.

H_{1b} – Narcissism is negatively associated with public acceptance of homosexuals.

 H_{1c} – Psychopathy is negatively associated with public acceptance of homosexuals.

 H_{2a} – Interdependent self-construal moderates the relationship between Machiavellianism and public acceptance of homosexuals.

 H_{2b} – Interdependent self-construal moderates the relationship between narcissism and public acceptance of homosexuals.

 H_{2c} – Interdependent self-construal moderates the relationship between psychopathy and public acceptance of homosexuals.

Significance of Study

Firstly, this study can reveal to what extent Malaysians' acceptance toward homosexuals is and overhaul the statistics of outdated literature. By addressing conflicting past research, where some indicate higher acceptance and others lower acceptance, the current ambiguous stance of Malaysians regarding homosexuals can be verified.

Moreover, this study can aid in filling the knowledge gaps presented. By focusing on the Dark Triad traits, this study can reveal if there is a definite influence of the darker aspects of personality on public acceptance of homosexuals, and if so, to what extent of influence. This can help expand the scope of existing literature by improving the understanding of the Dark Triad compared to the widely studied Big Five Personality. Furthermore, by including understudied variables such as Dark Triad and interdependent self-construal, this study can provide new insights into factors that may not have been previously considered and bridge the way for more research on LGBT acceptance in Malaysia.

Subsequently, this study can enrich and expand the literature in both Malaysian and non-Western contexts, which has been neglected in comparison to Western populations. This study can also provide scientific evidence on the moderating role of interdependent selfconstrual in a collectivistic culture and improve the understanding of how the same variables operate differently in understudied cultures. Moreover, by investigating interdependent selfconstrual, the motivations behind injustices faced by Malaysians, such as racial prejudice, discrimination, sexism, and ageism, can be observed.

Additionally, this study can help to clear the inconsistencies surrounding the associations of Dark Triad and attitudes towards homosexuals. In doing so, updated and accurate findings from this study can add to the existing body of Dark Triad and LGBT literature, and bring unforeseen insights.

Definition of Terms

Conceptual Definition

Public acceptance of the homosexual community refers to the extent to which society acknowledges and supports individuals who identify as lesbian or gay. It involves the recognition and approval of diverse sexual orientations and gender identities by society, to promote an inclusive environment for the homosexual community. In order for homosexual individuals to openly express themselves without fear of discrimination, prejudice, or stigmatization, society needs to demonstrate high levels of public acceptance.

In this paper, the terms "Dark Triad", "Dark Triad traits", and "Dark Triad personality" are used interchangeably. The Dark Triad comprises three personality domains, which are narcissism, Machiavellianism, and psychopathy. Narcissism involves excess self-love, including self-enhancing admiration that pursues uniqueness and self-defensive rivalry that devalues others through aggressiveness (Rogoza & Cieciuch, 2018). Machiavellianism is characterized by manipulation to achieve personal goals, while psychopathy indicates a lack of empathy, shallow emotions, and a disregard for others (Christie & Geis, 1970; Rogoza & Cieciuch, 2018).

Self-construal is defined by how an individual views themselves in relation to others (Markus & Kitayama, 1991). There are two modalities: interdependent and independent. Individuals with high interdependent self-construal (or low independent self-construal) value their relationships and connections with others; individuals with low interdependent self-construal (or high independent self-construal) value their autonomy and uniqueness. This study will specifically refer to the interdependent self-construal to fit in the context of a collectivistic Malaysian sample.

Operational Definition

The public acceptance of homosexuality will be assessed using the Homosexuality Attitude Scale (HAS; Kite & Deaux, 1986) The scores on the HAS consistently show associations with other theoretically based constructs. Lower scores are linked to increased religiosity, limited interpersonal interaction with gay men and lesbians, adherence to traditional gender-role attitudes, belief in a traditional family ideology, and support for policies that discriminate against sexual minorities.

The Dark Triad will be measured using the Short Dark Triad (SD3; Jones & Paulhus, 2013). This scale consists of three sub-domains to measure each trait, which are narcissism, Machiavellianism, and psychopathy. Higher scores in each domain indicate higher levels of that particular personality trait.

Interdependent self-construal will be measured using the Self-Construal Scale (SCS; Singelis, 1994). A higher score indicates stronger interdependent self-construal.

Chapter II

Literature Review

Public Acceptance of Homosexuals among Malaysian Adults

Laws are commonly assumed to represent the social consensus, thereby influencing people's decisions and perspectives on various matters. According to Cheah (2020), laws that criminalize individuals within the homosexual community have a systemic impact, influencing them directly and indirectly. In Malaysia, engaging in "unnatural sex" is prohibited by both Federal and state Syariah laws. This denial of their rights can impact various aspects of the lives of homosexual individuals, including healthcare accessibility, employment opportunities, and self-acceptance. In general, members of the homosexual community are more susceptible to developing mental health disorders, such as depression, attributed to experiences of minority stress (Mongelli et al., 2019). Consequently, if they encounter exclusion from healthcare services, their overall health may deteriorate, affecting their physical and mental well-being. Ongoing discrimination can lower their self-esteem, leading to self-rejection, thereby exacerbating the mental health challenges faced by homosexual individuals. This forms a vicious cycle.

As the LGBT issue is taboo in the Malaysian context, therefore it is hard to know the exact number of LGBT individuals (Mallow & Yeoh, 2019). Nonetheless, it is crucial to acknowledge and address the challenges confronted by the homosexual community. The mistreatment of the LGBT community, involving sexual harassment, violence, and discrimination, is perpetuated by social stigma. Society often views the LGBT community as a threat to established conservative norms, religion, tradition, and moral values, leading to their negative treatment. Thus, the majority of society may perceive the LGBT community as a pest that requires control and even elimination to preserve societal norms and religious beliefs. If Malaysians hold negative attitudes toward the homosexual community, members of

the homosexual community may need to conceal their identity to protect their well-being by shielding themselves from potential incidents of sexual harassment, violence, and discrimination.

Reviewing Malaysian literature, a significant portion of UTM students exhibit a lack of acceptance and hold unfavourable attitudes toward the LGBT community (Nora'eni et al., 2020). This perspective is often rooted in the belief that LGBT individuals are associated with the transmission of various infectious diseases, such as Human Immunodeficiency Virus (HIV) and Sexually Transmitted Infections (STI). It is noteworthy that HIV infection rates are exceptionally high within the LGBT demographic, further influencing these perceptions. The reason may be that LGBT individuals do not receive much safe sex education as they are being marginalized in the society. Additionally, in a recent nationally representative study involving 1,300 participants, it was revealed that approximately three-fifths of Malaysians expressed unfavourable views regarding lesbians and gay individuals (Manalastas et al., 2017). Nevertheless, there are pockets of society that have displayed a more receptive attitude towards the LGBT community. Notably, fans and followers of local LGBT figures on social media have reshaped the general perception of LGBT individuals and their place in society (Collin et al., 2021). Hence, the Malaysian public's stance on the homosexual community remains unclear, with the influence of ordinary individuals and celebrities or influencers posing distinct impacts on shaping perceptions of homosexual issues.

Dark Triad Personality

Dark Triad personalities that are offensive but not indicative of pathology include Machiavellianism, subclinical narcissism, and subclinical psychopathy. These personalities tend to exhibit low agreeableness when correlated with the Big Five personality traits (Paulhus & Williams, 2002). Furthermore, subclinical psychopaths are typically characterized by low levels of neuroticism, both Machiavellians and psychopaths tend to exhibit low levels of conscientiousness, and narcissism is correlated with low neuroticism and even displays small positive associations with cognitive ability, including Intellectual Quotient (IQ).

There are alternative concepts that involve various combinations of the three domains. For instance, the concept of the Dark Dyad posits that Machiavellianism, which is characterized by impulsivity and risk-taking, and psychopathy, which is a more comprehensive construct, are closely interconnected and could even be considered as two facets of a single construct, with narcissism showing the least correlation and differing criterion validity (Rogoza & Cieciuch, 2018). This is because psychopathy and Machiavellianism exhibit theoretical overlap, sharing similar affective characteristics such as emotional detachment and a lack of remorse. They also display analogous behavioural traits, including manipulation, exploitation, antagonistic tendencies, and antisocial behaviour. Additionally, the Dark Tetrad extends the three domains by adding sadism with callous traits. On the other hand, the Big Tent encompasses traits like greed, spitefulness, perfectionism, and dependency within the framework.

Machiavellianism

According to Christie and Geis (1970), Machiavellianism refers to a manipulative personality. Machiavellianism as a personality trait is often associated with an effective leader who can safeguard their resources and advantages, regardless of the consequences. In this context, such a leader is typically viewed as pragmatic, tactical, and strategic, yet may also be seen as exhibiting qualities that are deemed immoral, manipulative, and cynical (Christie & Geis, 1970; Jones & Paulhus, 2009). Rauthmann and Will (2011) have advanced a comprehensive theoretical framework for understanding Machiavellianism, encompassing desires, cognition, affect, and behaviour. Machiavellian desires are rooted in self-interest, encompassing a drive for self-promotion and self-protection, as well as self-directed orientations and impulse control. Machiavellian cognition involves various facets, including a negative worldview characterized by cynicism and immorality, a particular perspective on people involving suspiciousness and instrumentalism, the employment of specific strategies, and a marked degree of egocentricity. Machiavellian affect is associated with a notable absence of remorse and emotional detachment. The broadest dimension of Machiavellianism pertains to behaviour, and it can be characterized by several key elements. These include antisocial tendencies, behaviour driven by self-benefit and antagonism, exploitation, and manipulation. In particular, manipulation is a central feature of a Machiavellian personality, with various specific patterns such as tactical manipulation, presentation management, flexible adaptation, and deceit. Additionally, Machiavellian individuals employ distinct manipulative tactics like emotional manipulation, ingratiation, persuasion, intimidation, dominance and power, and self-disclosure to achieve their goals.

Narcissism

The second domain, narcissism, is defined as excessive self-love. According to Paulhus and Williams (2002), narcissism is marked by a strong tendency toward selfdeception and self-enhancement with limited self-insight. The concept of subclinical or "everyday" narcissism originated from Raskin and Hall's (1979) effort to define a milder form of the personality disorder described in the DSM. They preserved elements such as grandiosity, entitlement, dominance, and superiority from the clinical syndrome. The Narcissistic Admiration and Rivalry Concept also comprises two distinct dimensions (Rogoza & Cieciuch, 2018). Firstly, self-enhancing admiration encompasses the pursuit of uniqueness on an affective-motivational level, preoccupation with grandiose fantasies from a cognitive perspective, and displaying charming behaviour as a behavioural aspect. On the other hand, self-defensive rivalry involves striving for supremacy as an affective-motivational component, the cognitive element of devaluing others, and the behavioural aspect of aggressive behaviour. Interestingly, both dimensions show a positive correlation, even though admiration is considered a socially positive strategy, while rivalry is characterized as a socially malevolent strategy.

Psychopathy

The third domain, psychopathy, is defined as a lack of empathy. Hare and Neumann's 2008 four-factor model conceptualizes the structure of psychopathy, consisting of four distinct components (Rogoza & Cieciuch, 2018). The first factor is interpersonal manipulation, characterized by traits like a superficial charm, an exaggerated perception of self-worth, a strong tendency to lie excessively and manipulative behaviour. The second factor, callous affect encompasses the absence of remorse and empathy, along with shallow emotional responses. The third factor is the unpredictable way of living, which comprises tendencies for stimulation-seeking, impulsivity, and irresponsibility. Lastly, antisocial behaviour is characterized by traits such as poor behavioural control, and an inclination to engage in a variety of criminal activities, including juvenile delinquency. This last factor is similar to the findings of Paulhus and Williams (2002), where a broad range of self-report and behavioural assessments of antisocial conduct were notably influenced by psychopathy due to low levels of anxiety, whereas Machiavellianism and narcissism did not have a significant predictive impact. Then, psychopathy is further categorized into two subtypes. Primary psychopathy combines traits from interpersonal manipulation and callous affect, resulting in individuals who tend to exhibit qualities like callousness, manipulativeness, selfishness, and untruthfulness. Secondary psychopathy is formed by the merging of traits from the erratic lifestyle and antisocial behaviour dimensions, leading to impulsive and unpredictable behaviour. An alternative theory regarding psychopathy is introduced in the work of Patrick et al. (2009) through their triarchic conceptualization. This theory offers a unique perspective by dissecting psychopathy into three distinct components: boldness, meanness, and disinhibition. Boldness involves characteristics associated with interpersonal

dominance, fearlessness, high self-confidence, and a willingness to take risks. Meanness encompasses callousness, a lack of empathy, deliberate cruelty, shallow emotional responses, and a disposition to exploit others. The third component, disinhibition, addresses general difficulties in impulse control, a deficiency in self-regulation, and challenges in delaying gratification.

Dark Triad Personality to Public Acceptance of Homosexuals

According to Benu et al. (2022), the term "Dark Triad" is the most prevalent way of depicting personality traits associated with malevolence that are considered socially undesirable. Whereas attitudes towards the LGBT community can be classified into either positive or negative categories, with the negative spectrum encompassing traits like homophobia, homoerotophobia, heterosexism, and homonegativism. Individuals exhibiting antagonistic personality traits tend to display higher levels of racism, sexism, and xenophobia compared to those without such traits (Kay & Dimakis, 2022). Moreover, Kay and Dimakis (2022) mentioned that those with elevated levels of Machiavellianism, narcissism, and psychopathy are more prone to supporting homophobic and transphobic beliefs.

Benu et al. (2022) revealed several vital relationships between Dark Triad personality traits and attitudes toward homosexuality. Notably, a significant negative association was observed between psychopathy, characterized by traits such as antisocial behaviour, impulsivity, selfishness, emotional detachment, and a lack of remorse, and individuals' attitudes towards homosexuality. Furthermore, the research of Parrott and Zeichner (2006) indicated that self-reported psychopathy could predict physical hostility directed at gay males. In particular, psychopathy strongly suggested that participants would choose more intense shocks during a given aggression task that requested participants to interact with a fictitious gay opponent, suggesting that aggressiveness towards gay men might be a risk factor associated with psychopathy. The result implied that psychopathy is a notable indicator of violence against gay individuals, and it is linked to aggressive behaviour directed at gay men. Nevertheless, a question emerges about whether individuals with psychopathy would exhibit aggressive behaviour towards gay men in real-life situations as opposed to the virtual gaming environment, where there are no consequences for them to harm gay men in the game.

The study of Benu et al. (2022) did not find any significant links between Machiavellianism or narcissism and individuals' attitudes toward homosexuality. Nevertheless, the study by Kay and Dimakis (2022) reported that there are associations between Machiavellianism, psychopathy, and narcissism with homophobia and transphobia. Specifically, the connections between Machiavellianism and psychopathy with homophobia and transphobia were predominantly influenced by the diminished support for individualizing moral foundations, such as care and fairness. In other words, individuals with Machiavellian and psychopathic tendencies embrace these convictions due to their lack of concern for safeguarding and supporting others. On the other hand, the link between narcissism and these beliefs was predominantly driven by a heightened endorsement of binding moral foundations, namely loyalty, authority, and sanctity. In simpler terms, those with narcissistic traits appear to do so because of their focus on safeguarding and supporting their social groups. Therefore, it remains to be determined whether Machiavellianism or narcissism will result in negative attitudes towards the homosexual community, as there are contradictory findings.

Interestingly, experiencing homophobic bullying was found to be associated with becoming a perpetrator of homophobic bullying, but this connection was only evident when individuals displayed elevated levels of psychopathy and narcissism (Nappa et al., 2019). This is because individuals with high levels of psychopathy anticipate positive outcomes from aggression and show little concern for causing harm to others. Similarly, individuals with high levels of narcissism tend to maintain their self-image to avoid appearing vulnerable to bullying. Contradictory, high levels of Machiavellianism seemed to reduce the link between being a victim of homophobic bullying and becoming a perpetrator. This is because individuals with high levels of Machiavellianism only engage in violence when the advantages are high, and the risks are low. However, becoming a perpetrator of homophobic bullying could damage their public image and relationships, leading to negative consequences in the future.

In summary, there are divergent perspectives on the correlation between the Dark Triad and attitudes towards the homosexual community. Some researchers suggest an insignificant relationship, while others propose a significant association. Given that the Dark Triad consists of socially undesirable personality traits like callousness, manipulation, and excessive self-love, individuals with high Dark Triad traits may dismiss and marginalize social minority groups, such as the homosexual community, prioritizing their goals over the well-being of the homosexual population. Thus, the objective of this paper is to investigate whether there exists a negative correlation between the Dark Triad and public acceptance of the homosexual community. In other words, this study hypothesizes that higher scores in the Dark Triad traits (narcissism, Machiavellianism, and psychopathy) correspond to lower levels of public acceptance towards the homosexuality.

Interdependent Self-Construal as a Moderator

Self-construal can be understood as how individuals view themselves in relation to others (Agrawal & Maheswaran, 2005; Cross et al., 2011). Vast research has linked the cultural dimensions of individualism with independent self-construal, and collectivism with interdependent self-construal (Cross et al., 2011; Matsumoto, 1999). In other words, individualism and collectivism can be interpreted on a cultural level, while independence and interdependence can be interpreted on an individual level. According to Triandis (2001), instead of a continuum, collectivism and individualism should be categorized into four dimensions: vertical collectivism, vertical individualism, horizontal collectivism, and horizontal individualism. The vertical and horizontal components refer to the amount of equality and inequality tolerated by a person in a set culture, while collectivism and individualism refer to how the individual sees themselves as part of a collective or as a fully autonomous being (Triandis, 2001). For example, a person who is high in vertical collectivism views themselves as a part of a group and is willing to accept inequality and hierarchical structures in that group. This has become a basis of individual differences in cross-cultural research and is often used interchangeably and simultaneously with the concept of self-construal in other studies. Similarly, it is important to note that independence and interdependence self-construal are to be viewed as two separate factors of the self, instead of opposite ends of a single construct (Singelis, 1994). This is because each individual possesses both types of self-construal, albeit in varying strengths that can be observed.

Moreover, Markus and Kitayama (1991) proposed that Western populations exhibit independent self-construal, where individuals view themselves as distinct with their attitudes and beliefs; non-Western populations exhibit interdependent self-construal, where individuals view themselves as part of a collective and emphasize fitting in. However, as with most factors, variations exist whereby populations are not necessarily homogenous in their selfconstrual. For example, in collectivistic Malaysia, individuals exhibit independent selfconstrual and behave in ways that are considered out of the norm given the cultural context and expectations. Others could interpret these behaviors from a range of positive to negative, such as "ambitious, inspiring, progressive" to "deviant, crazy". In addition, Deputy Human Resources Minister Mustapha Sakmud stated that one of the top reasons why Malaysians are migrating to other countries is because they do not enjoy the "culture of connections" needed to succeed in their careers locally (Shah, 2023). Some are even willing to discard their privilege in Malaysia and migrate to a new environment where they can prove their abilities without connections. This phenomenon is at odds with the concept of collectivism which Malaysia supposedly embodies, which raises the question: Are Malaysians becoming more independent?

While the exact cause(s) of self-construal variations in a population is unclear, past research has investigated the connection of self-construal with personality across different cultures. For instance, Ma et al. (2021) hypothesized that in terms of workplace behaviors, Dark Triad traits would be perceived differently based on culture, thus advantages could emerge if a personality-culture fit is achieved. As narcissists are described as self-focused people with strong self-view of superiority, they could fit well in individualistic cultures that value self-achievement and self-promotion, but not so much in collectivistic cultures where humility is valued. This difference in culture can be observed in the act of complimenting. For instance, Yu (2005) claimed that native English speakers tend to give more compliments as an offer of solidarity, while Chinese speakers give less as a genuine expression of admiration. Both sets of participants questioned the sincerity of the compliments from the other group, as the frequency and intention of compliments differed from what they usually encountered. This shows that different cultures place emphasis on different things, and thus, an individual's traits are also susceptible to the culture they are in.

Subsequently, as Machiavellians are described as manipulative people who utilize their networks and trust others, they could fit well with collectivistic cultures that are relationship-oriented, as there are more social resources and opportunities for them to utilize than in individualistic cultures (Ma et al., 2021). This was also demonstrated in Sun Tzu's The Art of War by the line "All warfare is based on deception". This involves manipulating the opponents' beliefs, understanding their assumptions, and strategizing appropriately to counter their advances. In addition, the opportunities for manipulation could be observed in Japanese *nomikai* culture or *nominication* - the act of drinking with superiors and/or subordinates after work as a team-building exercise (Partanen, 2006; Yamauchi & Orr, 2011). Partanen (2006) insists that participation in these exercises is mandatory if a Japanese worker is interested in advancing their career. A survey with 30 Japanese leaders also revealed that some less experienced managers may utilize *nomikai* to deploy schemes and manipulative techniques on their subordinates for personal or corporate advantages (Yamauchi & Orr, 2011). In this case, individuals high in Machiavellianism could use these settings to their advantage.

Moreover, there has been contradictory research regarding psychopathy in different cultures. Ma et al. (2021) found that neither individualistic nor collectivistic cultures particularly value those who are callous, impulsive or lack remorse when harming others. As such, psychopathy should be perceived the same universally. On the other hand, Robertson et al. (2016) found that psychopathy was negatively associated with interdependence in the United States, but positively associated with interdependence in the Philippines. This could be interpreted as in an individualistic country, a psychopath is less likely to be interdependent; in a collectivistic country, a psychopath is more likely to be interdependent. Robertson et al. (2016) propose that self-esteem could be a factor behind this result, as self-esteem is a predictor of aggression, which can increase callous and impulsive behavior.

In relation to public acceptance of homosexuals, variables such as prejudice, discrimination and racism were also investigated as the effects of self-construal should be exerted similarly. In an experiment of social tuning, Skorinko et al. (2014) concluded that when primed with a collectivist mindset, both individualist and collectivist samples showed less explicit and implicit prejudice towards homosexuals. In other words, those who have a collectivist mindset or interdependent self-construal should be more likely to accept homosexuals. However, in a broader scope, there is research that proposes collectivistic groups are more likely to display more substantial ingroup bias or exhibit bias more frequently in the presence of outgroups (Al-Zahrani & Kaplowitz, 1993; Figueiredo et al., 2016). This was in line with research that claims that collectivistic groups make stronger distinctions between ingroups and outgroups. In reality, this is also demonstrated in the general public of Malaysia regarding LGBT as a whole, whereby LGBT people are outcasted and viewed as distinct groups.

Thus, the level of interdependent self-construal may change the strength or direction of the relationship between Dark Triad traits and public acceptance of homosexuals. Particularly, those with high interdependent self-construal may exhibit low public acceptance of homosexuals regardless of their Dark Triad traits, as they are likely to mold to the values and norm of collectivistic Malaysia. In contrast, those with low interdependent self-construal may exhibit low/high public acceptance of homosexuals depending on their Dark Triad traits, or their traits might succumb to the influence of their self-construal.

Sex as a Confounding Variable in the Acceptance of Homosexuality

Sex encompasses a range of biological attributes in humans and animals, primarily involving physical and physiological characteristics such as chromosomes and gene expression. It is typically classified as female or male (Canadian Institutes of Health Research, 2023). In contrast, gender pertains to the socially constructed roles, behaviors, expressions, and identities. In this article, sex is expected to play a significant role in the acceptance of homosexuals.

Generally, females tend to display more altruistic and prosocial behaviors due to their greater capacity for empathy and compassion, while males are often more self-focused (Soutschek et al., 2017). This is evident in contemporary human rights issues, such as those concerning homosexuals, where support for homosexual rights has largely come from women rather than men (Lim, 2002). Previous studies have found that men generally hold more

negative attitudes towards homosexuals compared to women, and women generally show greater acceptance of homosexual relationships and are less inclined than men to hold negative attitudes toward homosexuals (Barringer et al., 2013; Janssen & Scheepers, 2018; LaMar & Kite, 1998; Lim, 2002; Moskowitz et al., 2010). These results stemmed from several factors, including the degree of gender-role rigidity or fluidity, and societal responses to gender-role nonconformity. Men's stronger adherence to traditional gender roles pressures them to avoid displaying feminine traits or participating in feminine activities, and to distance themselves from those perceived as deviating from gender norms such as gay men (Kite & Whitley, 1996). Conversely, women generally experience more flexible gender roles and are less likely to feel pressured to reject those who do not conform to gender norms. The differing societal responses to nonconformity in gender roles for men and women can be attributed to the generally higher status of men. Essentially, men may face greater consequences if they challenge gender norms by accepting homosexual behavior. In contrast, women are often afforded more flexibility in their gender roles, which can lead to a greater tolerance for those who deviate from traditional gender expectations.

Heterosexuals' evaluations of homosexuals are based on a generalized gender belief system. According to this model, public perceptions about gender are based on the expectation that gender-associated attributes are binary: what is considered masculine is distinct from what is considered feminine, and vice versa (LaMar & Kite, 1998). Traditional gender roles reinforce the notion that men should uphold a masculine identity while women should adhere to a feminine role. Whitley's (2001) meta-analysis highlights that gender-role beliefs are strongly associated with attitudes toward homosexuality and identifies a correlation between these beliefs and antigay behavior. Violations of "traditional" gender roles are often perceived more intensely by heterosexual men in relation to homosexuality compared to heterosexual women (Maltz & Boss, 1997, as cited in Barringer et al., 2013).

From the above reasoning, men are likely to be particularly condemning of gay men, as they are perceived to violate traditional male gender roles. According to Kite and Whitley (1996), men's attitudes toward homosexuality are notably more negative towards gays compared to lesbians. This can be explained by multiple factors, including beliefs that gay individuals are threatening or dangerous, that they deserve criticism, and that interactions with them should be avoided (Millham et al., 1976; Plasek & Allard, 1984). Moreover, attitudes toward interacting with homosexuals are often examined through a psychodynamic view. This perspective reveals that heterosexual men may be repressing their own same-sex attractions, leading them to react defensively by criticizing homosexuals (Adams et al., 1996; Morin & Garfinkle, 1978). Simply put, men may respond more negatively to interaction with gay people, possibly because it raises the concern that they might find such encounters stimulating.

Religion as a Confounding Variable in the Acceptance of Homosexuality

Religion is a multifaceted and complicated concept that has been defined in various ways throughout history. Religion can be defined through several approaches, including substantive, functional, monothetic, and polythetic perspectives (Schilbrack, 2022). Substantive definitions focus on beliefs in supernatural, superhuman, or transcendent beings or powers. Functional definitions, on the other hand, define religion by the role it plays in individuals' lives or in society, such as fostering social cohesion. Monothetic definitions propose that a specific property or set of properties is both necessary and sufficient for something to be considered a religion. In contrast, polythetic definitions view religion as a concept with multiple characteristics, rejecting the idea that there is a single essence. In this literature review, functional definitions will be used. These definitions concentrate on what religion does rather than its specific content, referring to systems of practices that unite people into a moral community or the dominant concerns that organize an individual's values.

Malaysia is a multi-religious country with Islamic practice, Buddhism, Hinduism, Christianity, and several minority religions. The religious distribution of the population in Malaysia for 2024 is approximately 63.7% Islamic, 17.7% Buddhist, 9.4% Christian, 6.0% Hindu, and 1.2% practicing Confucianism, Taoism, and other traditional Chinese religions (Human Dignity Trust, 2023). Religion can be a source of social homophobia, which refers to prejudice and discrimination against homosexual individuals in society (Barnes & Meyer, 2012). Often, interpreting religious texts is not done in isolation; rather, it is influenced by human rationality and understanding, as well as by the socio-cultural context. Eastern religions, such as Buddhism and Hinduism, tend to exhibit less rejection of homosexuals individuals (Larson, 2010). Nonetheless, Islam and Christianity are often strongly associated with the oppression and ostracization of gay individuals.

To provide a deeper understanding of Islamic views, the prevailing perspective on homosexuality in many contexts is influenced by the statement in Surah Al-Araf, 'Do you commit that indecency which was not committed by anyone in the world before you?' This has led many Muslims to interpret 'indecency' as referring to homosexual acts (Human Dignity Trust, 2023). It is important to note that the Quran does not prescribe specific punishments for homosexual individuals. Although Islam may not provide explicit guidelines on same-sex sexuality, its integration into social and legal systems (Shariah law) has led to strict suppression of homosexuality in many Islamic countries, resulting in severe punishments such as imprisonment, whipping, and even the death penalty, which were not originally outlined in the Quran. Muslim institutions strongly prohibit male-male relationships, which are often perceived as embodying subordinate and passive sexual behaviors that conflict with traditional notions of masculinity and patriarchal family structures (Dunne, 1998; Hammock, 2009; Kugle and Hunt, 2012, as cited in Cheng, 2018).

Buddhism offers a framework for embracing diverse sexual orientations through its principles of non-judgment, equality, compassion, and emphasis on intention over strict rules about sexual behavior (Cheng, 2018). This approach fosters greater inclusivity for marginalized groups, including the gay community. Buddhism generally shows greater tolerance and understanding towards sexual minorities, reflecting its principles of equality-all beings are fundamentally equal-and compassion towards all, including marginalized groups. Buddhist ethics focus more on the intentions behind sexual behavior rather than the gender of one's partner. As long as the intent is to offer love and affection with mutual consent, such behavior is considered acceptable. Sexual conduct is not condemned as long as it does not violate core Buddhist precepts, such as causing harm. Unlike some other religions, Buddhism does not have specific scriptural condemnation of homosexuality. Some Buddhist denominations view homosexual activity as inappropriate behavior; however, they rarely exhibit homonegativity (Wilson, 2003; Yip, 2009, as cited in Cheng, 2018). Within the framework of Buddhist equality, homosexuality is viewed as neither superior nor inferior to heterosexuality. Both same-sex and opposite-sex relationships are considered equally valid, as long as the relationship is sincere, faithful, and mutually caring.

There are several Christian organizations that assert that the main purpose of sexual intercourse is procreation, which leads them to oppose homosexuality (Boisvert, 2017). Many churches stress that homosexual relationships are sinful according to a literal reading of the Bible, and assert that marriage should be exclusively between men and women (Thumma, 2007; Byrd, 2001, as cited in Cheng, 2018). They regard homosexuality not only as an act that goes against divine will but also as a disruption of the natural reproductive order between men and women. Hunsberger (1996) discovered that religious fundamentalism (RF), which involves a strict adherence to the core principles of one's religion, was associated with prejudiced attitudes toward homosexuals among Christians. Frequent involvement in religious activities, such as

church attendance and faith groups, can deepen commitment to religious doctrines and affect attitudes toward sexuality (Barringer et al., 2013). Individuals who engage more in these religious communities often develop less accepting views on homosexuality, as their exposure to church norms on sexuality intensifies through regular participation.

The Hindu American Foundation, in its policy brief on Hindus and Homosexuality, points out that Hinduism lacks a fundamental spiritual basis for oppressing and marginalizing homosexual individuals (Human Rights Campaign, n.d.). The brief states, "Given their inherent spiritual equality, Hindus should not socially ostracize LGBT individuals but should accept them as fellow sojourners on the path to moksha.". Indeed, Hindu literature rarely condemns or shows bias against homosexuality; even when same-sex activity is considered a minor sin, it can be forgiven through ritual rites. Hinduism features a distinctive concept of a "third sex" which is referring to individuals whose sexual activities are non-procreative, either due to impotence or a lack of desire for the opposite sex, which is crucial for understanding homosexuality (Human Rights Campaign, n.d.). Additionally, marriage in Hinduism serves specific purposes, such as Prajaa, which refers to procreation. Therefore, the issue is not with individual sexual orientation but with the ability to marry and produce offspring.

In summary, Buddhism and Hinduism generally exhibit greater acceptance of homosexuality due to their core doctrines that emphasize principles of equality and compassion, irrespective of their sexual orientation. Conversely, Islam and Christianity affirm that homosexual relationships are immoral and deviant, often resulting in reprimand such as social ostracism, legal penalties, or formal reprimands within the religious community.

Religiousness as a Confounding Variable in the Acceptance of Homosexuality

Religiousness denotes the intensity of one's belief in a specific religion and adherence to its laws and practices. Religiousness might be a key factor in accounting for the marginalization of homosexuality, because despite most religions advocating for respecting others, many categorize homosexuality as "unnatural" or "impure" (Janssen & Scheepers, 2018; Yip, 2005). The positive relationship between religiosity and the rejection of homosexuality aligns with socialization and integration theories (Durkheim, 2005; Ultee et al., 2003, as cited in Janssen & Scheepers, 2018). Socializing agents, such as religious institutions, play a vital role in shaping individuals' moral attitudes. Socialization and integration theory posits that social norms are adopted and internalized through interaction with these agents. The impact of socialization depends on the degree of exposure: individuals who are more frequently exposed to certain norms are more likely to adopt and internalize them.

Janssen & Scheepers (2018) found that in a study of 55 countries, individuals who place a higher importance on religion are more likely to reject homosexuality. People affiliated with a religious denomination reject homosexuality more strongly than those who are not. Thus, increased religious significance correlates with stronger rejection of homosexuality. This is because individuals with greater religious salience are more engaged in religious communities and activities. As they participate more, they are increasingly exposed to and influenced by the negative attitudes their religion holds toward homosexuality. Consequently, the more salient religion is in one's life, the more it shapes a person's moral attitudes. Additionally, the study found that individuals with stronger religious particularistic beliefs, those who view their religion as the only acceptable one, tend to reject homosexuality more strongly. Halstead and Lewicka (1998) support this view, suggesting that individuals with stronger religious particularistic beliefs may feel threatened by the lifestyles of homosexuals, which they perceive as violating their religious norms and values.

Theoretical Framework

Two theories will be used to frame and support the idea of the study: Dark triad theory and self-construal theory. The dark triad theory will be used to explain the relationship between Machiavellianism, narcissism and psychopathy with public acceptance of homosexuals. On the other hand, self-construal theory will be used to explain the role of interdependent self-construal as a moderator for the relationship stated above.

Dark Triad Theory

The dark triad theory is a personality theory that packages the negative aspects of human traits into three dimensions – Machiavellianism, narcissism and psychopathy. Machiavellianism is the tendency of manipulative behaviors, narcissism is the tendency of excessive self-love and superiority, psychopathy is the tendency for impulsive behavior and callousness. As previously mentioned, narcissism and psychopathy in dark triad terms refer to tendencies that occur at a subclinical level, instead of that at extreme pathological levels that disrupt an individual's daily life. In regard to other personality theories such as the Big Five model of personality, there are significant correlations. For instance, narcissism and psychopathy correlate with extraversion and openness (Lee & Ashton, 2005).

In this study, the Dark Triad traits are hypothesized to be predictors to public acceptance of homosexuals. As person-centered factors have been widely investigated in relation to prejudice or non-prejudice, this can be interpreted as including public acceptance of homosexuals as the inverse of prejudice. Vast research has suggested that Dark Triad traits lead to negative attitudes and behaviors. For instance, Koehn et al. (2019) states that individuals who were high in narcissism, Machiavellianism and psychopathy held more overall prejudicial attitudes. In other words, those with high Dark Triad traits are more likely to be low in public acceptance of homosexuals.

Self-Construal Theory

The self-construal theory was introduced by Markus and Kitayama (1991) to conceptualize the effects of culture on self-perception fully. This was done by relating it to the role of others in forming the self-concept (Voyer & Franks, 2014). In other words, individuals would perceive if others are important enough to them to include as part of their

self-concept. If they do, they may develop a stronger interdependent self-construal. If not, a stronger independent self-construal is possible. Moreover, the self-construal theory is an inherently social concept, with the emphasis of "others" as its basis. The theory was developed considering different cultures, as the sense of self is also perceived and expected in different ways.

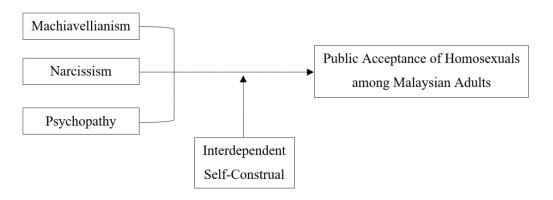
As a moderator, self-construal may amplify or deflate the strength of the relationship between Dark Triad traits and public acceptance of homosexuals. For instance, Lee et al. (2021) observed that self-construal not only influences features of fear appeals but also increases/decreases the persuasiveness of messages. As such, it is hypothesized that selfconstrual also has similar effects on personality traits and public acceptance of homosexuals.

In the present study, self-construal will be explicitly measured by the level of interdependence and whether said level moderates the relationship between Dark Triad traits and public acceptance of homosexuals. The extent of moderation is also examined if applicable. The level of interdependence was chosen instead of the level of independence as it is more suitable for the collectivistic context of Malaysia.

Conceptual Framework

Figure 1

Conceptual Framework of Machiavellianism, Narcissism and Psychopathy as Predictors of Public Acceptance of Homosexuals among Malaysian Adults, with Interdependent Self-Construal as a Moderator



Chapter III

Methodology

Research Design

A cross-sectional, quantitative and correlation approach was used. An online survey was distributed to examine Machiavellianism, narcissism and psychopathy as predictors of public acceptance of homosexuals among Malaysian adults with interdependent selfconstrual as a moderator. A cross-sectional study collects data from many individuals at a single point in time (Wang & Cheng, 2020). The quantitative approach collects and analyses numerical data to test hypotheses. The correlational approach is used to investigate the relationships between two or more variables without controlling or manipulating any variables (Tan, 2014). An online survey allows for convenient and widespread data collection without physical meetings.

Sampling Procedures

Justification of Sampling Method

This study utilized a non-probability sampling method for an Internet-based survey (Fricker, 2008). Non-probability sampling is utilized because the probability of every respondent included in the sample cannot be determined. It is a convenience sampling, and its benefit lies in its accessibility, saving effort and time. Specifically, unrestricted self-selected surveys will be used, in which the online surveys are accessible to the general public, allowing anyone who fulfils the inclusion criteria to participate. The decision to participate or opt-in is entirely up to the individual. However, due to the anonymity of the participants, there is low generalizability to larger populations.

Location of Study

The location of the study is focused on the Malaysian context by using an online survey method via email, and various social media and business communication platforms, such as Facebook, Instagram, WhatsApp, and Microsoft Teams.

Sample Size, Power, and Precision

The required sample size was calculated prior to the release of the online survey using G*Power, as it is free to use and will improve the significance of analyses done after data collection (Faul et al., 2009). Correlations between Machiavellianism, narcissism, psychopathy, public acceptance of homosexuals and interdependent self-construal were identified by reviewing past research studies (Benu et al., 2022). The identified effect sizes are 0.129, 0.071 and 0.281, which are considered small to moderate effect sizes (Benu et al., 2022; see Table B1). Three results are generated from G*Power by inputting these values along with test family set to "F tests", statistical test set to "linear multiple regression: fixed model, R2 deviation from zero", type of power analysis set to "A priori: compute required sample size – given α , power, and effect size", α err prob set to 0.05, power (1- β err prob) set to 0.95, and number of predictors set to 7 (see Figure B1, B2 & B3). The result with the largest sample size was selected for this study, which is 315 participants (see Figure B2). In addition, by accounting for the possibility of missing data and incomplete responses, another 10% of participants will be added to the suggested number of participants. Thus, this study aims to recruit a minimum of 346 participants. However, due to time constraints and resource limitations, this study aimed for 200 valid responses as 200 responses is regarded to be sufficient for a study measuring small populations (Israel, 1992).

Data Collection Procedures

Inclusion and Exclusion Criteria

The inclusion criteria for participants in this study include being a Malaysian citizen, above 18 years of age, and heterosexual. Otherwise, participants were excluded from the study.

Ethical Clearance

Ethical clearance approval was applied due to ethical considerations in this research, including aspects related to privacy, confidentiality, anonymity, informed consent, voluntary participation, potential risks and benefits, and data storage. This is to ensure that the research process fulfils the ethical requirements and that researchers uphold the values of integrity, honesty, and fairness. Ethical clearance for this research was reviewed and approved by the UTAR Scientific and Ethical Review Committee (SERC), with approval number U/SERC/326/2023 (see Appendix I).

Procedures of Obtaining Consent

Ethical approval considerations such as informed consent were addressed in the introductory section of the questionnaire (see Appendix A). In compliance with privacy and confidentiality considerations, participants were given the option to withdraw any provided information by contacting the email addresses provided. A logical condition was established in Qualtrics to conclude the survey if participants choose to disagree with the consent form.

Description of Data Collection Procedures

Quantitative data collection method was employed in this study. A poster was created to recruit participants to fill the online survey. The questionnaire in this current study was split into five parts. Participants were requested to fill in any relevant demographic information, such as age, gender, sexual orientation, and religion. Since the inclusion criteria include that participants must be heterosexual, participants were directed to the end of the survey if the participant reported as other than heterosexual. Participants were guided to the subsequent section, which is required for completing the Homosexuality Attitude Scale (HAS), Self-Construal Scale (SCS) and the Short Dark Triad (SD3). The process of data collection was reviewed by the UTAR SERC.

Agreement and Payment

A token of appreciation in the form of RM10 lucky draws were provided in this research, for both the pilot study and actual study. A total of RM500 was allocated for the token of appreciation. All participants were invited to join the lucky draw by inputting their phone number. Joining the lucky draw is fully voluntary and their phone numbers were collected only for contact purposes if they won the lucky draw. 5 participants from the pilot study and 45 participants from the actual study were randomly selected using a random number generator, and the winners were contacted via WhatsApp to claim their prize. The RM10 tokens were transferred using Touch N Go or bank transfer.

Instruments

The online survey consisted of four sections: demographic questionnaire, the Homosexuality Attitude Scale (HAS), the Self-Construal Scale (SCS), and the Short Dark Triad (SD3; see Appendix A).

Demographic Questionnaire

This questionnaire recorded the participants' demographic information and baseline characteristics such as age, gender, religion, sexual orientation, and religiousness. For religiousness, participants were asked to rate their own religiousness on a scale of 1 to 5, 1 being not at all religious, and 5 being very religious.

Homosexuality Attitude Scale

To measure the level of acceptance towards homosexuals, the HAS by Kite and Deaux (1986) was used. The scale consists of 21 items that measure the stereotypes,

misconceptions, and anxieties about homosexuals. The scale uses a 5-point Likert ranging from 1 (*strongly agree*) to 5 (*strongly disagree*). Examples of items are "I would not mind having a homosexual friend" and "Homosexuality is a mental illness". Items 1, 2, 6, 8, 13, 14, 15, 18, 19, 20 and 21 are reverse scored. For scoring, the score of each item is summed up, with a higher score indicating higher acceptance of homosexuals. According to Kite and Deaux (1986), the HAS has excellent internal consistency ($\alpha > .92$) and good test-retest reliability (r = .71).

However, to be consistent with the other instruments used and to avoid confusion for the respondents, the Likert scale was modified to 1 being strongly disagree, and 5 being strongly agree. As such, the scoring is modified accordingly by reverse-scoring items 3, 4, 5, 7, 9, 10, 11, 12, 16 and 17. Thus, the scoring method remains the same, with higher scores indicating higher acceptance of homosexuals.

Self-Construal Scale

An adopted version of the SCS by Singelis (1994) was used to assess the participants' interdependent self-construal. The scale consists of 2 dimensions with 30 total items worded generally in daily scenarios to gauge the participants' connection to others. Among them, 15 items are under the independent domain, while the other 15 are under the interdependent domain. For this study, only the interdependent items were used. The scale uses a 7-point Likert ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Examples of items are "Even when I strongly disagree with group members, I avoid an argument" and "I have respect for the authority figures with whom I interact". For scoring, the scores from the interdependent domain are summed up and divided by 15 for a mean score. The range of scores is 1 to 15, with higher scores indicating higher levels of interdependence. According to Jobson et al. (2019), the SCS demonstrates good validity and reliability in Malay and Australian samples, with a Cronbach's alpha of 0.93.

Short Dark Triad

To assess the participant's Dark triad traits – Machiavellianism, narcissism and psychopathy, the SD3 by Jones and Paulhus (2013) was used. The scale consists of three subscales with 27 total items. Among them, nine items measure Machiavellianism, nine items measure narcissism, and nine items measure psychopathy. The scale uses a 5-point Likert ranging from 1 (*disagree strongly*) to 5 (*agree strongly*). Examples of items are "It's not wise to tell your secrets" and "People see me as a natural leader". Items 11, 15, 17, 20 and 25 are reverse scored. For scoring, the scores of each subscale are averaged to form three separate scores. The range of scores is 1 to 9 for each subscale, with higher scores indicating higher levels of either Machiavellianism, narcissism or psychopathy. From a past study conducted in the Malaysian context, the SD3 had an overall Cronbach's alpha of 0.83, which is considered high (Yap & Elizaveta, 2021). The subscales of Machiavellianism, narcissism and psychopathy had Cronbach's alphas of 0.71, 0.65 and 0.75, respectively, which are considered moderately high (Yap & Elizaveta, 2021). In addition, the SD3 demonstrated good discriminant validity in an Indian sample (Biswas & Narad, 2023).

Pilot Study

A pilot study was conducted before the actual study to assess the reliability of the instruments employed in the online survey. After one month, the online survey for the pilot study obtained 32 responses. Data cleaning was conducted to exclude responses that disagreed to join the study, had incomplete items, and had incorrect selections for any of the three attention checkers. Thus, six responses were excluded, leaving 26 valid responses. The participants involved in the pilot study will not be the participants in the actual study.

Reliability of the Instruments

Reliability analysis was done for all instruments using JASP 0.18.3. McDonald's omega (ω) was used instead of Cronbach's alpha (α) as it is considered a more optimal

estimation of reliability (Hayes & Coutts, 2020). The Homosexuality Attitude Scale (HAS) had $\omega = .945$; Interdependent Self-Construal had $\omega = .777$; Machiavellianism had $\omega = .196$; narcissism had $\omega = .733$; psychopathy had $\omega = .584$. As the acceptable cut-off of ω is around .7, the variables Machiavellianism and psychopathy are considered to have low internal consistency (McNeish, 2018).

Actual Study

Reliability of the Instruments

Reliability analysis was done for all instruments using JASP 0.18.3. The HAS had ω = .245; Interdependent Self-Construal had ω = .717; Machiavellianism had ω = .781; narcissism had ω = .217; psychopathy had ω = .589. The HAS, narcissism and psychopathy instruments did not display adequate internal consistency. As such, four items from HAS (C5, C7, C16, C17), three items from narcissism (E11, E15, E17), and one item from psychopathy (E25) were removed to improve the scales' reliability, based on the suggestion of itemdeletion. After the item-deletion, the HAS had ω = .704; narcissism had ω = .656; psychopathy had ω = .675.

Data Analysis

The results were analysed using IBM SPSS Statistics 23. Descriptive analysis was done for the demographic information and baseline characteristics of the participants. Then, indicators for normally distributed data were checked using histogram, Q-Q plot, skewness, kurtosis and Kolmogorov-Smirnov test. Subsequently, Pearson's correlation was conducted according to the conceptual framework presented. Hayes PROCESS Macro Model 1 was utilised to analyse the moderation effect. PROCESS is a regression-based path analysis macro that estimates the model coefficients in mediation and moderation models, in which Model 1 is used in simple moderation where the primary predictor is continuous/ dichotomous, and the moderators are continuous/dichotomous (Hayes & Preacher, 2014; Hayes & Rockwood, 2017). Analysis and interpretation of the results was the final step.

Chapter IV

Results

Missing Data

The online survey received 456 responses after six months. Data was cleaned to exclude responses that disagreed to join the study, had incomplete items, and had incorrect selections for any of the three attention checkers. The remaining responses also were filtered according to the inclusion criteria: Participants must be Malaysians, participants must be aged 18 years and above, and participants must be straight. As such, 56% of the total responses were removed. Among them, 39.5% identified as other than straight, 12.2% incorrectly answered on any attention checkers, and 4.3% disagreed to consent. Thus, 200 valid responses remained.

Assumptions of Normality

Skewness and Kurtosis

The acceptable range of skewness is -2 to +2, while the acceptable range of kurtosis is -7 and +7 (Hair et al., 2019). Table 1 below shows the skewness and kurtosis of all study variables.

Table 1

Skewness and Kurtosis of Study Variables

	Skewness	Kurtosis
1. Acceptance	80	.89
2. Interdependent self-construal	.15	.42
3. Machiavellianism	19	.40
4. Narcissism	.13	.57
5. Psychopathy	.14	.43

Thus, normality is not violated for acceptance of homosexuals, interdependent selfconstrual, Machiavellianism, narcissism, and psychopathy (see Appendix C).

Kolmogorov-Smirnov Test

Normality is violated for acceptance of homosexuals, Machiavellianism, narcissism, and psychopathy, as these variables had a significance value of $p < .05_{\pm}$ which is lower than the significance value of p = .05 (see Appendix D). This indicates a difference between the sample and population normality. On the other hand, normality is not violated for interdependent self-construal as it had a significance value of p = .20.

Histogram

Normality is not violated for acceptance of homosexuals, interdependent selfconstrual, Machiavellianism, narcissism, and psychopathy as the curve is centered ideally in the middle of the graph (see Appendix E).

Q-Q Plot

Normality is not violated for acceptance of homosexuals, interdependent selfconstrual, Machiavellianism, narcissism, and psychopathy, as most of the scores are clustered along the diagonal line in each Q-Q plot (see Appendix F).

Conclusion of Assumptions of Normality

There is only one violation of Kolmogorov-Smirnov Test for the variables acceptance of homosexuals, Machiavellianism, narcissism, and psychopathy. Thus, normality for all five variables is satisfied as each variable has fulfilled at least three assumptions out of five.

Descriptive Statistics

Among 200 valid responses, 67.5% were female and 32.5% were male. Most respondents were aged between 20 to 24 (67.5%, M = 24.81, SD = 7.6). For ethnicity, 84% were Chinese, followed by Malay at 11%, Indian at 2% and Others at 3%. Other ethnicities include Kadazan, Dusun Murut, Sino-Native and Bumiputera Sabah. For religion, 65%

practiced Buddhism, followed by Christianity at 17%, Islam at 12.5%, Hinduism at 2.0% and Others at 3.5%. Other religions include Catholic, Taoism, Atheism and none.

Correlation Analysis

Bivariate correlation was done to determine a potential association between two variables and the significance of such association (see Appendix G). Table 2 below shows the correlations for all study variables.

Table 2

1	2	3	4	5	6	7	8
1							
.03	1						
.01	.14*	1					
15*	.48***	.35***	1				
02	.03	.45***	.41***	1			
20**	.04	.05	.04	.10	1		
14*	.07	16*	09	05	.03	1	
41***	.01	19**	.04	20**	.04	.11	1
63.54	4.95	3.58	2.92	2.43	-	24.81	3.11
13.31	.66	.59	.58	.59	-	7.60	.97
	1 .03 .01 15* 02 20** 14* 41*** 63.54	1 .03 1 .01 .14* 15* .48*** 02 .03 20** .04 14* .07 41*** .01 63.54 4.95	1 .03 1 .01 .14* 1 15* .48*** .35*** 02 .03 .45*** 20** .04 .05 14* .07 16* 41*** .01 19** 63.54 4.95 3.58	1.03 1 .01.14* 1 15*.48***.35*** 1 02.03.45***.41***20**.04.05.04.14*.0716*0941***.0119**.0463.544.953.582.92	1 .031.01.14*1 15^* .48***.35***1 02 .03.45***.41***1 20^{**} .04.05.04.10 14^* .07 16^* 09 05 41^{***} .01 19^{**} .04 20^{**} 63.54 4.95 3.58 2.92 2.43	1.031.01 $.14^*$ 1 15^* $.48^{***}$ $.35^{***}$ 1 02 .03 $.45^{***}$ $.41^{***}$ 1 20^{**} .04.05.04.101 14^* .07 16^* 09 05 .03 41^{***} .01 19^{**} .04 20^{**} .04 63.54 4.95 3.58 2.92 2.43 $-$	1 $.03$ 1 $.01$ $.14*$ 1 $15*$ $.48***$ $.35***$ 1 02 $.03$ $.45***$ $.41***$ 1 $20**$ $.04$ $.05$ $.04$ $.10$ 1 $14*$ $.07$ $16*$ 09 $.05$ $.03$ 1 $41***$ $.01$ $19**$ $.04$ $20**$ $.04$ $.11$ 63.54 4.95 3.58 2.92 2.43 $ 24.81$

Correlations for Study Variables

Note. *p < .05, **p < .01, ***p < .001 (1-tailed).

Notably, the variable narcissism is negatively correlated with acceptance of homosexuals, r(198) = -.15, p = .019. These factors also negatively correlated with acceptance of homosexuals: gender [r(198) = -.20, p = .002], age [r(198) = -.14, p = .028] and religiousness [r(198) = -.41, p < .001].

As such, H_{1a} and H_{1c} are failed to be accepted; H_{1b} is accepted.

Moderation Analysis

Influential Cases

Prior to the moderation analyses, potential outliers among the data were identified using casewise analysis. A total of eight cases were identified of having residuals of more than two standard deviations as per Table 2 below.

Table 3

Case Number, Mahalanobis Distance, Cooks' Distance and Centered Leverage Value of Potential Influential Cases

Case Number	Mahalanobis Distance	Cook's Distance	Centered Leverage Value
43	12.60153	.03332	.06332
69	10.33554	.06232	.05194
120	15.60467	.02238	.07442
133	11.13872	.01489	.05597
141	3.70553	.04453	.01862
143	6.50533	.02163	.03269
167	4.85194	.03886	.02438
195	9.55777	.00192	.04803

According to Barnett and Lewis (1994), a conservative cut off point for Mahalanobis distance for a sample of 100 is more than 15. The Mahalanobis distance values for each case is less than 15, except for case 120.

Subsequently, according to Stevens (2002), cases with Cook's distance > 1 are potential outliers. As the Cook's distance value for each case is < 1, there were no violations for all eight cases.

Moreover, according to Stevens (2002), any case with a leverage greater than $\frac{3(k+1)}{n}$ are potential outliers. The calculation with the proper values plugged in is:

$$\frac{3(4+1)}{200} = 0.075$$

As the leverage of each case is less than 0.075, there were no violations for all eight cases. Therefore, no cases are required to be removed.

Hayes' PROCESS Macro Model One

Moderation analysis was conducted using SPSS's PROCESS macro, model number one (Hayes, 2013). The analysis was done three times following the three Dark Triad traits. In the analysis, Dark Triad trait was set as X variable, acceptance of homosexuals as Y variable, interdependent self-construal as W variable, and covariates include gender, religion and religiousness (see Appendix H).

For Machiavellianism, the overall model is significant, F(6,193) = 13.98, p < .001, $R^2 = .30$. However, the interaction between X and W was not significant, b = .31, t(193) = .15, p = .88. Thus, no moderation effect of interdependent self-construal was observed on Machiavellianism and acceptance of homosexuals.

For narcissism, the overall model is significant, F(6,193) = 16.59, p < .001, $R^2 = .34$. However, the interaction between X and W was not significant, b = -1.91, t(193) = -1.11, p = .27. Thus, no moderation effect of interdependent self-construal was observed on narcissism and acceptance of homosexuals.

For psychopathy, the overall model is significant, F(6,193) = 14.41, p < .001, $R^2 = .31$. However, the interaction between X and W was not significant, b = 2.86, t(193) = 1.51, p = .13. Thus, no moderation effect of interdependent self-construal was observed on psychopathy and acceptance of homosexuals.

Thus, H_{2a} , H_{2b} and H_{2c} are failed to be supported.

Chapter V

Discussion

Machiavellianism and Public Acceptance of Homosexuals

This study found that being manipulative (Machiavellianism) does not have a clear link with people's acceptance or rejection of homosexuals. Despite the lack of evident linkage, individuals with Machiavellian traits might be more accepting of homosexuals rather than rejecting them. This is especially notable given Malaysia's cultural and societal context, where homosexuality is often viewed as taboo. This is reflected in government laws prohibiting expressions and conduct outside of heterosexual norms (Human Dignity Trust, 2023).

The result is consistent with previous research by Benu et al. (2022), which indicated that there is no significant relationship between Machiavellianism and attitude towards homosexuality. This may be because individuals with high Machiavellian traits have demonstrated proficiency in affective perspective-taking (Massey-Abernathy & Byrd-Craven, 2016). This explanation fits our study, where the mean Machiavellianism score among our respondents was relatively high at 3.6 out of 9, compared to the typical mean score of 3.1, indicating that most participants may exhibit these traits more strongly than average. As a result, they may appear to exhibit empathic responses, despite Machiavellian traits typically linked to reduced empathy and limited interpersonal closeness. This research proved that individuals high in Machiavellian traits often have deficits in affective empathy — emotional resonance and appropriate emotional responses — rather than in cognitive empathy, which involves the ability to recognize others' emotional states. This means they can understand and identify others' emotions cognitively without actually feeling or sharing those emotions. This enables them to evaluate sensitive information and develop strategies based on others' emotional states while staving emotionally detached, thus appearing empathic through

accurate perception and discussion of others' emotions but lacking the shared emotional experience. Taking others' perspectives without emotional involvement allows them to manipulate social situations to their advantage. In the context of accepting homosexuals in Malaysian society, where openly supporting homosexuals can be socially sensitive, individuals with high Machiavellian traits might recognize the marginalization and unfair treatment experienced by minority groups without emotionally sharing those feelings, and strategically choose to display acceptance. Therefore, the lack of a significant relationship between Machiavellianism and acceptance of homosexuals may be because individuals with Machiavellian traits neither strongly reject nor accept them, as cognitive understanding without emotional sharing can lead to varying outcomes, and they might strategically choose to show acceptance or rejection due to the social sensitivity on homosexuality.

However, an alternative neuroscience perspective offers an explanation that contradicts the above finding. Based on the relationship between Theory of Mind (ToM) and empathetic experiences in Machiavellianism, provided by Bagozzi et al. (2013). The research showed that individuals high in Machiavellianism exhibit deficiencies in brain areas linked to ToM skills, while showing increased activity in regions associated with affective empathy. This suggests that individuals with high Machiavellian traits may have limited ToM skills for cognitively understanding others' perspectives but excel at automatic empathic understanding that resonates well with others' emotions, particularly attuning strongly to the negative emotions of others. This capability could result in emotional reactions and manipulative behaviors in their interactions with others. Thus, it can be concluded that in Machiavellians, perspective-taking (ToM) and emotional sharing (empathy) operate as distinct processes, contrary to the usual view of coordinated empathy. This implies that Machiavellians might empathize with the negative emotions experienced by marginalized groups like homosexuals, even if they do not fully understand or adopt the perspective of those groups. Given that all of our respondents identified as heterosexual, it is possible that their lack of firsthand experience with the struggles faced by homosexuals further weakens the connection between Machiavellianism and acceptance of homosexuals. Hence, it cannot be concluded that Machiavellianism has a significant association with public acceptance of homosexuals.

Narcissism and Public Acceptance of Homosexuals

This study found that individuals with excessive self-love (narcissism) have a notable tendency to reject homosexuals. The respondents in this study showed a high mean narcissism score of 2.9, compared to the typical mean score of 2.8. Despite item deletion, the total scores and number of questions were adjusted, meaning the mean value remains consistent and comparable to the typical mean. Therefore, the average respondent displays a persistent drive for ego-reinforcement and exhibits traits of grandiosity.

This result is congruent with the previous study by Kay and Dimakis (2022), stating that individuals with high narcissism are more inclined to express homonegative views. In the study, narcissism was more strongly associated with traditional homonegativity and gender-bashing in a diverse adult sample (ages 18 and up)—the same target population as our study— compared to undergraduate students, possibly due to differences in social desirability concerns between the two samples. In simpler terms, the adult sample may be more likely to align with prevailing societal views to avoid exclusion, compared to the student sample. In the Malaysian social context, the high narcissism scores among respondents, combined with Malaysia's conservative stance on homosexuality, which often involves significant hostility towards homosexuality, suggest that narcissistic individuals are more likely to align with prevailing societal norms and reject homosexuals to avoid social ostracism. Additionally, since all of our respondents are heterosexual, those with high narcissism might strongly desire to uphold their social group's norms and maintain in-group cohesion. This could lead them to reject homosexuals who do not conform to these norms. As a result, the heterosexual

narcissistic respondents in our study show lower acceptance of homosexuals as they seek to preserve their dignity and loyalty within their social in-group.

Additionally, the significant negative relationship between narcissism and public acceptance of homosexuals can be explained by national collective narcissism. This belief in one's nation's unique greatness and superiority, often linked to nationalism, in-group glorification, and disrespect for subgroups, is associated with negative attitudes toward gender equality, political conservatism, legitimization of gender inequality, and resistance to collective action for equality (Golec de Zavala & Keenan, 2024). This applies to narcissism within the Dark Triad context because it shares similar characteristics, such as protecting ingroup identity by exploiting out-group rights and believing in one's superiority, which leads to inequality. Mole et al. (2021) found a significant link between national collective narcissism and homophobia. They propose that their approach can be used to explain homophobia in different contexts by pinpointing which aspects of national identity are seen as being threatened by homosexuality. In Malaysia, same-sex sexual activity and gender expression by homosexuals are criminalized, which reflects the legitimization of gender inequality (Human Dignity Trust, 2023). Recent years have seen ongoing reports of discrimination and violence against LGBT individuals. Therefore, it is apparent that Malaysia's national identity is hostile toward homosexuals, and this hostility is reinforced by a strong sense of national collective narcissism among Malaysians. This collective narcissism often leads the public to perceive homosexual individuals as a threat to national identity, emphasizing the perceived superiority of the heterosexual majority and contributing to negative attitudes toward marginalized homosexual groups.

Moreover, Ribeiro et al. (2023) highlighted that narcissistic individuals rigidly adhere to gender stereotypes and cling to an idealized sexual representation that they believe best reflects their concept of masculinity or femininity. Consequently, their focus on rejecting

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traits of the opposite sex can contribute to their rejection of homosexual identities, as these identities often challenge their rigid gender norms. In addition to maintaining gender typicality and idealized sexual representation, individuals with high narcissism also suppress traits associated with the opposite sex within themselves, creating an imbalance in their internal sense of masculinity and femininity. This imbalance can lead to a broader rejection of anything that deviates from their strict gender norms, including homosexual identities, by devaluing identities and behaviors that do not conform to their prescribed roles. The high mean score of narcissism in our study suggests that many participants might be reinforcing traditional gender roles and rejecting homosexual identities as a way to preserve their own perceived superiority and conform to gender norms. Thus, it can be concluded that narcissists have a significant negative correlation with the acceptance of homosexuals.

Psychopathy and Public Acceptance of Homosexuals

This study found that lacking remorse and being callous (psychopathy) do not determine people's acceptance or rejection of homosexuals. Regardless of the absence of a clear connection, individuals with lower levels of psychopathy traits might have a higher acceptance of homosexuals.

The psychopathy levels among our respondents are considered moderate to low, with a mean score of 2.4, which is consistent with the typical mean within the normal range. Rilling et al. (2207) found that lower levels of psychopathy are associated with stronger activation in the orbitofrontal cortex when choosing to cooperate in the Prisoner's Dilemma game. The orbitofrontal cortex plays a role in processing emotions and making decisions guided by emotional input, suggesting that individuals with low psychopathy have an innate emotional tendency towards cooperation. To choose defection, they must override their natural cooperative tendency, which requires effortful cognitive control. Additionally, individuals with lower psychopathy levels show stronger activation in the rostral anterior cingulate cortex when choosing to defect. The rostral anterior cingulate cortex is associated with emotional conflict, indicating that individuals with low psychopathy experience greater emotional tension when choosing defection. Hence, it is concluded that individuals with low levels of psychopathy are inclined to cooperate socially.

In this context, social cooperation is associated with altruistic behaviour (Pothos et al., 2011). A cooperative bias can be viewed as a type of altruism, where people decide to cooperate despite it not serving their immediate self-interest. This type of cooperative behavior is beneficial at a societal level and is consistent with theories of altruism. Empathy is considered the primary mechanism for altruism in animals and includes emotional contagion, sympathetic concern, and empathic perspective-taking (Frans de Waal, 2008). The perception-action mechanism is suggested as the basis for empathy, where observing another's state triggers similar neural responses in the observer. Consequently, when individuals with low psychopathy choose to cooperate, aligning with their natural tendency, it indicates they are likely altruistic and empathetic towards the homosexual community. The low psychopathy score among our respondents suggests that their inherent empathy and cooperative behaviour could make them more inclined to accept homosexuals. However, the lack of a significant relationship between psychopathy and acceptance of homosexuals may be because social cooperation in individuals with psychopathy is often driven by self-interest and personal gain, rather than broader social or moral concerns. Thus, they may not be particularly concerned with the emotional or social implications of accepting or rejecting homosexuals.

Moreover, Murray et al. (2012) indicated that individuals with lower levels of psychopathy handle emotional information and react to potentially guilt-inducing scenarios differently compared to those with higher psychopathy levels. Specifically, individuals with lower psychopathy are more prone to experiencing negative emotions, such as guilt or discomfort, when faced with guilt-inducing situations. This emotional engagement can drive them to acknowledge the detrimental effects of homophobic attitudes and adjust their views accordingly. Furthermore, individuals with lower psychopathy are more adept at identifying others' emotions, especially sadness and fear. This heightened sensitivity can enhance their empathy for the challenges faced by homosexual individuals and deter them from participating in discriminatory behaviours. In Malaysia, certain cases may evoke sadness, empathy, and fear in the public regarding the punishment for homosexual conduct. For instance, a Malaysian religious court sentenced five men to jail, caning, and fines for attempting gay sex (Latiff, 1029). Similarly, two women found guilty of attempting same-sex relations were publicly caned six times each, with the event witnessed by around 100 people (Palansamy, 2018). When individuals with low psychopathy traits learn about these inhumane incidents, they may empathize with homosexual individuals and avoid discriminating against them. However, traits such as lack of remorse, shallow affect, and callousness still persist to a certain degree in individuals with psychopathic traits. As a result, there is no significant relationship between psychopathy and acceptance of homosexuals, as these internal conflicts cause other, stronger factors to determine their beliefs on homosexual issues.

Overall, the non-significant relationship indicates that psychopathy does not have a strong or direct effect that would lead to significant changes in the acceptance of homosexuals.

Interdependent Self-Construal as a Moderator

The moderating effect of interdependent self-construal on the relationships between the three Dark Triad traits and acceptance of homosexuals was not significant. In other words, the strength of the relationship between the Dark Triad traits and acceptance of homosexuals is constant regardless of interdependent self-construal.

These null findings could be attributed to the emergence of conflicting self-construal. Despite being regarded as a collectivist society, there was a shift observed towards individualism in different aspects of life among Malaysians (Noordin, 2004). For instance, while remaining collectivists in areas such as social relations and family integrity, competition – an individualism factor, is ingrained in their working life. This shift to individualism could be explained simultaneously by the change of self-expression values and the succession of Maslow's hierarchy of needs. The Inglehart-Welzel Cultural Map emphasizes self-expression and survival values, where self-expression values can only be cultivated when the basic survival values are met (Inglehart, 1971; World Values Survey Association, n.d.). Self-expression values include expressing own's uniqueness, such as personality, emotions, and ideas; survival values include physical and economic security. Self-expression also extends to environmental advocacy, gender equality, and LGBTQ+ rights (World Values Survey Association, n.d.). This is similar to Maslow's hierarchy of needs, in which the deficiency needs (e.g., physiological, safety, belonging needs) must be achieved before the growth needs (e.g., esteem, self-actualization) can be fulfilled (Noltemeyer et al., 2012). However, the Inglehart-Welzel Cultural Map is highly linked to economic and political stability, as these factors dictate the ease of fulfilling survival values and subsequently the ability to practice self-expression values (World Values Survey Association, n.d.). In the context of Malaysia as a developing country, economic growth has been moderate and relatively stable since the 1997 Asian financial crisis, and recent policies such as minimum wage and ongoing labor market reforms have allowed the average citizen to survive with less burdens (Department of Statistics Malaysia, 2024; Harun & Sallehuddin, 2024). Therefore, it can be interpreted that as survival needs are met, citizens can now place emphasis on their self-expression, which explains the recent emergence of values and beliefs that may be considered individualistic in a collectivist society.

In that case, would self-construal predict the expression of individualistic values? It is important to note that both interdependent and independent self-construals can and do coexist in individuals, only that the levels are different, which leads to a predominant self-construal (Singelis, 1994). However, Petterson and Paterson (2012) state that different situations trigger and are guided by different self-construals. For example, situations emphasizing accountability and accuracy are likely to endorse independent decision-making behavior guided more by independent self-construal than interdependent (Schlenker & Weigold, 1989). This means that even among predominantly interdependent individuals, they are more likely to take on an independent self-construal when confronted with high accuracy tasks. This can be interpreted as a conflict in self-construals, where interdependent or independent self-construal would manifest depending on the setting. Thus, individualistic values may be guided by self-construal only in specific settings. While there is currently no explicit indicator of which situations are likely to trigger which self-construal, it is surmised that independent self-construal is more likely to be activated by stimuli interpreted as not bounded by the context, while interdependent self-construal is more likely to be activated by stimuli interpreted as bound in the context (Kuhnen et al., 2001; Choi & Totten, 2012). As such, it is unclear if interdependent self-construal specifically would be activated in the context of homosexual acceptance.

Subsequently, considering the shift to individualism, independent self-construal could potentially be a more effective moderator. According to Lin and Xie (2023), those with higher independent self-construal are more resistant to norm conformity and are less likely to obey group expectations. As such, they are likely to treat in-group and out-group members more equally and fairly. In the context of homosexual acceptance, their desire for fairer treatment of the out-group may push them to vocalize their stand more obviously, as they have a greater awareness of what they themselves believe to be correct as opposed to what others believe to be correct (Petterson & Paterson, 2012). This contrasts with those with interdependent self-construal, who may prefer to keep silent to avoid the social cost of disagreeing with others despite their personal stand (Petterson & Paterson, 2012). As such, independent self-construal is more likely to direct behavior in this study's context. Hence, further investigation on the potential moderating effects of independent self-construal in this relationship should be conducted.

Implications

This study has several notable implications. Firstly, it expanded on the unique connection between the Dark Triad and homosexual acceptance literature in the Malaysian context by adding the role of interdependent self-construal for the first time. By analyzing the Dark Triad with acceptance of homosexuals, this study exposes the theoretical impact of the Dark Triad compared to the Big Five, which is oversaturated in similar literature. This unveils new knowledge of the negative side of personality that may be overlooked in the commonly used Big Five. Additionally, this study also clears the inconsistencies in existing literature of Dark Triad and homosexual acceptance.

Subsequently, this study has introduced a new variable – Self-construal as a moderator to the Malaysian literature, which is highly relevant in a culturally-rich context regarding a polarizing topic. Moreover, by analyzing interdependent self-construal as a moderator, this study uncovers the theoretical intricacies of self-construal that are triggered and guided by different settings, rather than a constant factor in all areas of life as initially expected. Future research could refine and replicate this framework with a larger sample size and improved methodology.

Furthermore, the results of this study shows a moderate level of homosexual acceptance among the sample. This is an improvement on acceptance compared to what was reported from past result (Ahmad et al., 2021). This result adds credibility to existing

literature in support of advancing LGBTQ+ rights and equality in Malaysia (Ling & Ting, 2022). In addition, this study can push for advocacy campaigns and policies to be revised in Malaysia, as there are currently no laws that protect LGBTQ+ people against discrimination and hate crimes. Similarly, laws criminalizing LGBTQ+ should also be revised, namely Section 377A of the Penal Code (Mallow & Peng, 2019). Lawmakers could be guided to make policies according to the Sustainable Development Goals to reduce inequality and promote diversity in Malaysia.

Limitations and Recommendations

It is essential to recognize the limitations of the study to identify areas for future improvement. First, this study has a sampling bias due to the sample predominantly consisting of Chinese, with an under-representation of Malays and Indians. Ideally, the study should reflect the latest Malaysian population distribution, with 70.1% Malay, 22.6% Chinese, 6.6% Indian, and 0.7% from other ethnic groups to accurately gauge Malaysian public acceptability toward homosexuality, levels of Dark Triad traits, and the moderating effect of interdependent self-construal. Thus, the findings may not be generalizable to the entire Malaysian population, as they do not fully represent the Malaysian context. To address this issue, a stratified random sampling method can be employed, where the population is divided into subgroups, or strata, based on shared characteristics such as race. Random samples are then drawn from each stratum to form the final sample.

Moreover, the small sample size utilized in this study is also one of the limitations. The sample size of 200 is the bare minimum for a study measuring small populations, as supported by Israel (1992). However, a larger sample size, such as 346, as indicated by the G*Power analysis in this study, would be more appropriate. Given Malaysia's complex cultural influences and the sensitivity of this topic, a larger sample would better examine the studied variables and enhance the accuracy of the results. This is because larger samples more closely approximate the population, enabling the generalization of findings from a sample to the broader population. Additionally, small samples are more likely to produce unusual results purely by chance. Therefore, a larger sample size is recommended for future studies.

Another limitation of this study is the use of the HAS by Kite and Deaux (1986), which only measures explicit attitudes and may not fully capture genuine acceptance of homosexuals. In Malaysia, homosexuality is a sensitive topic, leading individuals to conceal their true attitudes due to social desirability. To address this, incorporating both explicit and implicit attitude measurements would be beneficial. For instance, the Attitudes Toward Lesbians and Gay Men Scale - Short Version (ATLG-S) by Herek (1994) could measure explicit attitudes, while the Implicit Association Test (IAT) by Steffens (2005) could measure implicit attitudes.

Furthermore, there are more pressing factors in the Malaysian context that may moderate the Dark Triad and acceptance of homosexuals more effectively, such as religious commitment. Religion is a core value in Malaysia, with religious teachings guiding behavior and societal norms that persist until today. However, religious commitment varies among the population, with some considered atheists. Past research has supported the robust role of religious commitment as a moderator in various fields, such as between faith and forgiveness, and between organizational commitment and employee performance (Robbie & Novianti, 2020; Wnuk, 2021). However, few studies have investigated religious commitment as a moderator between the Dark Triad and the acceptance of homosexuals in the Malaysian context. Future research should include religious commitment to assess its moderating role in this context.

Lastly, the employed moderator in this study was interdependent self-construal due to the consideration of collectivist nature of Malaysian society. Nevertheless, independent self-

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construal might be a more effective moderator, especially given the growing shift towards individualism, which favors personal freedom over collective control. Individuals with higher independent self-construal are more likely to resist social conformity and advocate for the fair treatment of out-group members, such as homosexuals. In contrast, those with interdependent self-construal may remain silent to avoid social discord. Therefore, future research should explore the potential moderating effects of independent self-construal in this context.

Conclusion

In this research, the relationship between Dark Triad traits and public acceptance of homosexuals within the Malaysian context was explored, with interdependent self-construal as a moderator. Consistent with previous literature, narcissism significantly correlates with the rejection of homosexuals, driven by a desire to maintain in-group loyalty, avoid social exclusion, adhere to societal gender norms, and preserve perceived superiority. Contrary to previous literature, this research shows no significant association between Machiavellianism or psychopathy and the acceptance or rejection of homosexuals. Machiavellians may understand cognitively but lack emotional sharing, leading to an unclear link. Those with low psychopathy may cooperate socially and experience guilt, yet traits like lack of remorse and shallow affect persist, resulting in no significant relationship. Moreover, this research also found a non-significant moderating effect of interdependent self-construal, likely due to the rise of individualism in Malaysia, despite its collectivistic roots. Further studies should consider using independent self-construal as a better moderator to examine the relationship.

This research is theoretically significant for three reasons: it uniquely connects the Dark Triad with homosexual acceptance in the Malaysian context by introducing interdependent self-construal, clarifies inconsistencies in existing literature, and introduces self-construal as a new moderating variable in Malaysian studies. Practically, it supports the revision of advocacy campaigns and policies, advancing LGBTQ+ rights and equality in Malaysia. Despite the contributions of this study, it has limitations, including sampling bias, a small sample size, reliance on explicit attitudes, unexamined moderators, and the use of a non-significant interdependent self-construal as a moderating variable. These issues can be addressed in future research by employing stratified sampling, larger samples, scales to assess implicit attitudes, exploring additional moderators, and using independent self-construal.

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Appendices

Appendix A

Consent Form and Survey

FYP

Start of Block: A - Introduction & Informed Consent

Introduction

Department of Psychology and Counselling Faculty of Arts and Social Science Universiti Tunku Abdul Rahman Introduction

We would like to conduct a research study to examine the Dark Triad Personality, Public Acceptance of Homosexuals and Self-Construals among Malaysian Adults.

Procedures and Confidentiality

The following questionnaire will require approximately 20 minutes to complete. All information provided will remain as **private and confidential**. The information given will only be reported as group data with no identifying information and only use for academic purpose.

Participation

All the information gathered will remain anonymous and confidential. Your information will not be disclosed to any unauthorized persons and would be accessible only by group members. Participant in this study is voluntary, you are free to withdraw with consent and discontinue participation in anytime without prejudice. Your responses will be coded numerically in the research assignment for the research interpretation. Your cooperation would be greatly appreciated.

If you choose to participate in this project, please answer all the questions as honestly as possible and return the completed questionnaire promptly.

P&C

Personal Data Protection Statement

Please be informed that in accordance with Personal Data Protection Act 2010 ("PDPA") which came into force on 15 November 2013, Universiti Tunku Abdul Rahman ("UTAR") is hereby bound to make notice and require consent in relation to collection, recording, storage, usage and retention of personal information.

Notice:

1. The purposes for which your personal data may be used are inclusive but not limited to: For assessment of any application to UTAR

For processing any benefits and services For communication purposes For advertorial and news For general administration and record purposes For enhancing the value of education For educational and related purposes consequential to UTAR For the purpose of our corporate governance For consideration as a guarantor for UTAR staff/student applying for his/her scholarship/study loan

2. Your personal data may be transferred and/or disclosed to third party and/or UTAR collaborative partners including but not limited to the respective and appointed outsourcing agents for purpose of fulfilling our obligations to you in respect of the purposes and all such other purposes that are related to the purposes and also in providing integrated services, maintaining and storing records. Your data may be shared when required by laws and when disclosure is necessary to comply with applicable laws.

3. Any personal information retained by UTAR shall be destroyed and/or deleted in accordance with our retention policy applicable for us in the event such information is no longer required.

4. UTAR is committed in ensuring the confidentiality, protection, security and accuracy of your personal information made available to us and it has been our ongoing strict policy to ensure that your personal information is accurate, complete, not misleading and updated. UTAR would also ensure that your personal data shall not be used for political and commercial purposes.

Consent

Consent:

1. By submitting this form you hereby authorise and consent to us processing (including disclosing) your personal data and any updates of your information, for the purposes and/or for any other purposes related to the purpose.

2. If you do not consent or subsequently withdraw your consent to the processing and disclosure of your personal data, UTAR will not be able to fulfill our obligations or to contact you or to assist you in respect of the purposes and/or for any other purposes related to the purpose.

3. You may access and update your personal data by writing to us at: murielwong@1utar.my (Ms. Muriel Wong Jie Chee) tongshin@1utar.my (Ms. See Tong Shin)

Acknowledgement

Acknowledgement of Notice

O I have been notified by you and that I hereby understood, consented and agreed per UTAR's above notice.

○ I disagree, my personal data will not be processed.

Lucky Draw

Lucky Draw By completing this survey, you may enter a Lucky Draw and stand a chance to obtain RM10. There will be a total of 45 winners for this Lucky Draw, and the Lucky Draw will be conducted at the end of the data collection phase (around June 2024).

To join, please select your preferred transfer method (TouchNGo, Boost, Bank Transfer) and provide your phone number for us to WhatsApp you if you win. Only responses that are complete and meet the participation criteria will be included in the Lucky Draw. Your phone number will remain private and confidential, and will only be used to WhatsApp you for sending the RM10 reward. It is alright if you do not want to join the Lucky Draw. In that case, you do not need to provide your phone number. We greatly appreciate your contribution and time to this study.

Please select ONE of the choices below.

I do not want to join the Lucky Draw. I will not provide my phone number.

I would like to join the Lucky Draw. I understand the terms stated above and will provide my phone number.

Phone Number To join the Lucky Draw, please enter your VALID handphone number that is registered with WhatsApp. For any inquiries, please contact Ms. Muriel at murielwong@1utar.my

Please select your preferred transfer method to receive the RM10 reward if you are a Lucky Draw Winner. Additional details will be requested via WhatsApp.

O TouchNGo

🔘 Boost

O Bank Transfer

End of Block: A - Introduction & Informed Consent

Start of Block: B - Demo	graphic	Question	naire
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B0 Please fill in your personal details or select ONE option.
B1 Age
B2 Gender
O Male
O Female
B3 Ethnicity
O Malay
○ Chinese
O Indian
Others. Please specify below:

B4 Religion

O Islam
O Christian
O Buddhist
○ Hindu
Others. Please specify below:
B5 Employment Status
○ Student
O Part-time employed
O Full-time employed
B6 Marital Status
○ Single
O In a relationship
O Married
○ Widowed

B7 I am attracted to
Opposite sex
○ Same sex
O Both men and women
Others. Please specify below:
B8 Have you ever come in contact with a gay man or lesbian?
○ Yes
O Maybe
○ No
B9 Do you personally know anyone who identifies as gay or lesbian? Such as a friend or family member
○ Yes
○ No
B10 On a scale of 1 to 5, how religious do you consider yourself?
1 - Not at all religious
O 2 - Not very religious
O 3 - Neutral
O 4 - Somewhat religious
○ 5 - Very religious

End of Block: B - Demographic Questionnaire

Start of Block: C - Public Acceptance of Homosexuals

CO Please indicate your level of agreement with the items below using the following scale:

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

C1 I would not mind having a homosexual friend.

○ 1 - Strongly disagree

O 2 - Disagree

🔘 3 - Neutral

🔘 4 - Agree

○ 5 - Strongly agree

C2 Finding out that an artist was gay would have no effect on my appreciation of his/her work.

1 - Strongly disagree
2 - Disagree
3 - Neutral
4 - Agree
5 - Strongly agree

C3 I won't associate with known homosexuals if I can help it.

	🔾 1 - Strongly disagree
	O 2 - Disagree
	O 3 - Neutral
	🔿 4 - Agree
	○ 5 - Strongly agree
C4	I would look for a new place to live if I found out my roommate was gay.
	O 1 - Strongly disagree
	O 2 - Disagree
	🔿 3 - Neutral
	O 4 - Agree
	○ 5 - Strongly agree

C5 Homosexuality is a mental illness.

🔘 1 - Strongly disagree

🔘 2 - Disagree

🔘 3 - Neutral

🔘 4 - Agree

C6 I would not be afraid for my child to have a homosexual teacher.

(1 - Strongly disagree
(2 - Disagree
(3 - Neutral
(4 - Agree
(S - Strongly agree
C7 Ga	ays dislike members of the opposite sex.
(1 - Strongly disagree
(2 - Disagree
(3 - Neutral
(4 - Agree
(○ 5 - Strongly agree

C8 I do not really find the thought of homosexual acts disgusting.

🔘 1 - Strongly disagree

\bigcirc	2 -	Disagree
\smile	2	DISUBICC

🔘 3 - Neutral

- 🔘 4 Agree
- 5 Strongly agree

C9 Homosexuals are more likely to commit deviant sexual acts, such as child molestation, rape, and voyeurism (Peeping Toms), than are heterosexuals.

1 - Strongly disagree
2 - Disagree
3 - Neutral
4 - Agree
5 - Strongly agree

C10 Homosexuals should be kept separate from the rest of society (i.e., separate housing, restricted employment).

1 - Strongly disagree
2 - Disagree
3 - Neutral
4 - Agree
5 - Strongly agree

C11 Two individual of the same sex holding hands or displaying affection in public is revolting.

1 - Strongly disagree
2 - Disagree

0

🔾 3 - Neutral

🔾 4 - Agree

C12 The love between two males or two females is quite different from the love between two persons of the opposite sex.

○ 1 - Strongly disagree 2 - Disagree 3 - Neutral • 4 - Agree ○ 5 - Strongly agree C13 I see the gay movement as a positive thing. ○ 1 - Strongly disagree 2 - Disagree 3 - Neutral 0 4 - Agree ○ 5 - Strongly agree C14 Homosexuality, as far as I'm concerned, is not sinful.

1 - Strongly disagree
2 - Disagree
3 - Neutral
4 - Agree
5 - Strongly agree

C15 I would not mind being employed by a homosexual.

○ 1 - Strongly disagree 2 - Disagree O 3 - Neutral 0 4 - Agree ○ 5 - Strongly agree C_ATTENTION Please select '5 - Strongly agree' for this question. ○ 1 - Strongly disagree 2 - Disagree O 3 - Neutral 0 4 - Agree ○ 5 - Strongly agree C16 Homosexuals should be forced to have psychological treatment. ○ 1 - Strongly disagree 2 - Disagree O 3 - Neutral 0 4 - Agree

C17 The increasing acceptance of homosexuality in our society is aiding in the deterioration of morals.

1 - Strongly disagree
2 - Disagree
3 - Neutral
4 - Agree
5 - Strongly agree

C18 I would not decline membership in an organization just because it had homosexual members.

1 - Strongly disagree
2 - Disagree
3 - Neutral
4 - Agree

\bigcirc	5 -	Strongl	y agree
\sim	5	Strong	yugice

C19 I would vote for a homosexual in an election for public office.

1 - Strongly disagree
2 - Disagree
3 - Neutral
4 - Agree
5 - Strongly agree

C20 If I knew someone were gay, I would still go ahead and form a friendship with that individual.

1 - Strongly disagree
O 2 - Disagree
O 3 - Neutral
🔾 4 - Agree
○ 5 - Strongly agree
C21 If I were a parent, I could accept my son or daughter being gay.
1 - Strongly disagree
O 2 - Disagree
O 3 - Neutral
O 4 - Agree

End of Block: C - Public Acceptance of Homosexuals

Start of Block: D - Self-Construal

○ 5 - Strongly agree

D0 This is a questionnaire that measures a variety of feelings and behaviors in various situations. Listed below are a number of statements. Read each one as if it referred to you. Please select the number that best matches your agreement or disagreement. Please respond to every statement. Thank you.

Strongly disagree	Disagree	Somewhat disagree	Don't agree or disagree	Agree somewhat	Agree	Strongly agree
1	2	3	4	5	6	7

D1 I enjoy being unique and different from others in many respects.

1 - Strongly disagree
2 - Disagree
3 - Somewhat disagree
4 - Don't agree or disagree
5 - Agree somewhat
6 - Agree

○ 7 - Strongly agree

D2 I can talk openly with a person who I meet for the first time, even when this person is much older

than I am.

○ 1 - Strongly disagree

2 - Disagree

- 3 Somewhat disagree
- 4 Don't agree or disagree
- 5 Agree somewhat
- 0 6 Agree
- 7 Strongly agree

D3 Even when I strongly disagree with group members, I avoid an argument.

1 - Strongly disagree
2 - Disagree
3 - Somewhat disagree
4 - Don't agree or disagree
5 - Agree somewhat
6 - Agree

○ 7 - Strongly agree

D4 I have respect for the authority figures with whom I interact.

○ 1 - Strongly disagree

O 2 - Disagree

○ 4 - Don't agree or disagree

○ 5 - Agree somewhat

🔘 6 - Agree

○ 7 - Strongly agree

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D5 I do my own thing, regardless of what others think.

1 - Strongly disagree
2 - Disagree
3 - Somewhat disagree
4 - Don't agree or disagree
5 - Agree somewhat

O 6 - Agree

○ 7 - Strongly agree

D6 I respect people who are modest about themselves.

○ 1 - Strongly disagree

O 2 - Disagree

○ 3 - Somewhat disagree

○ 4 - Don't agree or disagree

○ 5 - Agree somewhat

🔘 6 - Agree

D7 I feel it is important for me to act as an independent person.

1 - Strongly disagree
2 - Disagree
3 - Somewhat disagree
4 - Don't agree or disagree
5 - Agree somewhat
6 - Agree

○ 7 - Strongly agree

D8 I will sacrifice my self interest for the benefit of the group I am in.

○ 1 - Strongly disagree

O 2 - Disagree

- 3 Somewhat disagree
- 4 Don't agree or disagree
- 5 Agree somewhat
- O 6 Agree
- 7 Strongly agree

D9 I'd rather say "No" directly, than risk being misunderstood.

○ 1 - Strongly disagree

2 - Disagree

○ 3 - Somewhat disagree

○ 4 - Don't agree or disagree

○ 5 - Agree somewhat

O 6 - Agree

○ 7 - Strongly agree

D10 Having a lively imagination is important to me.

○ 1 - Strongly disagree

O 2 - Disagree

- 3 Somewhat disagree
- 4 Don't agree or disagree
- 5 Agree somewhat

O 6 - Agree

D11 I should take into consideration my parents' advice when making education/career plans.

○ 1 - Strongly disagree

O 2 - Disagree

○ 3 - Somewhat disagree

○ 4 - Don't agree or disagree

○ 5 - Agree somewhat

O 6 - Agree

D12 I feel my fate is intertwined with the fate of those around me.

○ 1 - Strongly disagree

2 - Disagree

○ 3 - Somewhat disagree

○ 4 - Don't agree or disagree

○ 5 - Agree somewhat

O 6 - Agree

○ 7 - Strongly agree

D13 I prefer to be direct and forthright when dealing with people I've just met.

○ 1 - Strongly disagree

2 - Disagree

○ 3 - Somewhat disagree

○ 4 - Don't agree or disagree

○ 5 - Agree somewhat

O 6 - Agree

D14 I feel good when I cooperate with others.

○ 1 - Strongly disagree

2 - Disagree

○ 3 - Somewhat disagree

○ 4 - Don't agree or disagree

○ 5 - Agree somewhat

O 6 - Agree

○ 7 - Strongly agree

D15 I am comfortable with being singled out for praise or rewards.

○ 1 - Strongly disagree

🔿 2 - Disagree

○ 3 - Somewhat disagree

○ 4 - Don't agree or disagree

○ 5 - Agree somewhat

O 6 - Agree

D16 If my brother or sister fails, I feel responsible.

1 - Strongly disagree
2 - Disagree
3 - Somewhat disagree
4 - Don't agree or disagree
5 - Agree somewhat
6 - Agree
7 - Strongly agree

D17 I often have the feeling that my relationships with others are more important than my own accomplishments.

○ 1 - Strongly disagree

2 - Disagree

- 3 Somewhat disagree
- 4 Don't agree or disagree
- 5 Agree somewhat
- 0 6 Agree
- 7 Strongly agree

D18 Speaking up during a class (or a meeting) is not a problem for me.

○ 1 - Strongly disagree

2 - Disagree

○ 3 - Somewhat disagree

○ 4 - Don't agree or disagree

○ 5 - Agree somewhat

O 6 - Agree

○ 7 - Strongly agree

D19 I would offer my seat in a bus to my professor (or my boss).

○ 1 - Strongly disagree

O 2 - Disagree

○ 3 - Somewhat disagree

○ 4 - Don't agree or disagree

○ 5 - Agree somewhat

O 6 - Agree

○ 7 - Strongly agree

D20 I act the same way no matter who I am with.

○ 1 - Strongly disagree

2 - Disagree

○ 3 - Somewhat disagree

○ 4 - Don't agree or disagree

○ 5 - Agree somewhat

O 6 - Agree

○ 7 - Strongly agree

D_ATTENTION Please select '4 - Don't agree or disagree' for this question.

○ 1 - Strongly disagree

O 2 - Disagree

○ 3 - Somewhat disagree

○ 4 - Don't agree or disagree

○ 5 - Agree somewhat

O 6 - Agree

○ 7 - Strongly agree

D21 My happiness depends on the happiness of those around me.

○ 1 - Strongly disagree

2 - Disagree

○ 3 - Somewhat disagree

○ 4 - Don't agree or disagree

○ 5 - Agree somewhat

O 6 - Agree

○ 7 - Strongly agree

D22 I value being in good health above everything.

○ 1 - Strongly disagree

O 2 - Disagree

○ 3 - Somewhat disagree

○ 4 - Don't agree or disagree

○ 5 - Agree somewhat

O 6 - Agree

○ 7 - Strongly agree

98

D23 I will stay in a group if they need me, even when I am not happy with the group.

○ 1 - Strongly disagree

2 - Disagree

○ 3 - Somewhat disagree

○ 4 - Don't agree or disagree

○ 5 - Agree somewhat

O 6 - Agree

○ 7 - Strongly agree

D24 I try to do what is best for me, regardless of how that might affect others.

○ 1 - Strongly disagree

O 2 - Disagree

○ 3 - Somewhat disagree

○ 4 - Don't agree or disagree

○ 5 - Agree somewhat

O 6 - Agree

○ 7 - Strongly agree

99

D25 Being able to take care of myself is a primary concern for me.

○ 1 - Strongly disagree

2 - Disagree

○ 3 - Somewhat disagree

○ 4 - Don't agree or disagree

○ 5 - Agree somewhat

O 6 - Agree

○ 7 - Strongly agree

D26 It is important to me to respect decisions made by the group.

○ 1 - Strongly disagree

O 2 - Disagree

○ 3 - Somewhat disagree

○ 4 - Don't agree or disagree

○ 5 - Agree somewhat

O 6 - Agree

○ 7 - Strongly agree

D27 My personal identity, independent of others, is very important to me.

○ 1 - Strongly disagree

2 - Disagree

○ 3 - Somewhat disagree

○ 4 - Don't agree or disagree

○ 5 - Agree somewhat

O 6 - Agree

○ 7 - Strongly agree

D28 It is important for me to maintain harmony within my group.

○ 1 - Strongly disagree

O 2 - Disagree

○ 3 - Somewhat disagree

○ 4 - Don't agree or disagree

○ 5 - Agree somewhat

O 6 - Agree

○ 7 - Strongly agree

D29 I act the same way at home that I do at school (or work).

1 - Strongly disagree
2 - Disagree
3 - Somewhat disagree
4 - Don't agree or disagree
5 - Agree somewhat
6 - Agree
7 - Strongly agree

D30 I usually go along with what others want to do, even when I would rather do something different.

1 - Strongly disagree
2 - Disagree

- 3 Somewhat disagree
- 4 Don't agree or disagree
- 5 Agree somewhat
- O 6 Agree
- 7 Strongly agree

End of Block: D - Self-Construal

Start of Block: E - Dark Triad Personality

EO Please indicate how much you agree with each of the following statements.

Disagree strongly	Disagree	Neither agree nor disagree	Agree	Agree strongly
1	2	3	4	5

E1 It's not wise to tell your secrets.

○ 1 - Disagree strongly

O 2 - Disagree

○ 3 - Neither agree nor disagree

🔿 4 - Agree

○ 5 - Agree strongly

E2 I like to use clever manipulation to get my way.

1 - Disagree strongly

O 2 - Disagree

○ 3 - Neither agree nor disagree

🔾 4 - Agree

○ 5 - Agree strongly

E3 Whatever it takes, you must get the important people on your side.

O 1 - Disagree strongly							
O 2 - Disagree							
○ 3 - Neither agree nor disagree							
O 4 - Agree							
○ 5 - Agree strongly							
E4 Avoid direct conflict with others because they may be useful in the future.							
1 - Disagree strongly							
O 2 - Disagree							
○ 3 - Neither agree nor disagree							
O 4 - Agree							
○ 5 - Agree strongly							
E5 It's wise to keep track of information that you can use against people later.							
O 1 - Disagree strongly							
O 2 - Disagree							
○ 3 - Neither agree nor disagree							
O 4 - Agree							
○ 5 - Agree strongly							

E6 You should wait for the right time to get back at people.

O 1 - Disagree strongly
O 2 - Disagree
○ 3 - Neither agree nor disagree
🔿 4 - Agree
O 5 - Agree strongly
E7 There are things you should hide from other people to preserve your reputation.
O 1 - Disagree strongly
O 2 - Disagree
○ 3 - Neither agree nor disagree
O 4 - Agree
○ 5 - Agree strongly
E8 Make sure your plans benefit yourself, not others.
O 1 - Disagree strongly
O 2 - Disagree
○ 3 - Neither agree nor disagree
🔾 4 - Agree
○ 5 - Agree strongly

E9 Most people can be manipulated.

O 1 - Disagree strongly
O 2 - Disagree
O 3 - Neither agree nor disagree
🔾 4 - Agree
O 5 - Agree strongly
E10 People see me as a natural leader.
O 1 - Disagree strongly
O 2 - Disagree
O 3 - Neither agree nor disagree
🔾 4 - Agree
O 5 - Agree strongly
E11 I hate being the center of attention.
O 1 - Disagree strongly
O 2 - Disagree
O 3 - Neither agree nor disagree
🔾 4 - Agree
O 5 - Agree strongly

E12 Many group activities tend to be dull without me.

O 1 - Disagree strongly
O 2 - Disagree
O 3 - Neither agree nor disagree
🔾 4 - Agree
O 5 - Agree strongly
E13 I know that I am special because everyone keeps telling me so.
O 1 - Disagree strongly
O 2 - Disagree
O 3 - Neither agree nor disagree
O 4 - Agree
O 5 - Agree strongly
E14 I like to get acquainted with important people.
O 1 - Disagree strongly
O 2 - Disagree
O 3 - Neither agree nor disagree
🔾 4 - Agree
O 5 - Agree strongly

E15 I feel embarrassed if someone compliments me.

O 1 - Disagree strongly
O 2 - Disagree
○ 3 - Neither agree nor disagree
O 4 - Agree
O 5 - Agree strongly
E16 I have been compared to famous people.
O 1 - Disagree strongly
O 2 - Disagree
○ 3 - Neither agree nor disagree
🔾 4 - Agree
○ 5 - Agree strongly
E17 I am an average person.
O 1 - Disagree strongly
O 2 - Disagree
○ 3 - Neither agree nor disagree
O 4 - Agree
○ 5 - Agree strongly

E18 I insist on getting the respect I deserve.

○ 1 - Disagree strongly 2 - Disagree ○ 3 - Neither agree nor disagree 0 4 - Agree ○ 5 - Agree strongly E19 I like to get revenge on authorities. 🔘 1 - Disagree strongly O 2 - Disagree ○ 3 - Neither agree nor disagree ○ 4 - Agree ○ 5 - Agree strongly E20 I avoid dangerous situations. ○ 1 - Disagree strongly O 2 - Disagree ○ 3 - Neither agree nor disagree 0 4 - Agree ○ 5 - Agree strongly

E21 Payback needs to be quick and nasty.

1 - Disagree strongly
O 2 - Disagree
○ 3 - Neither agree nor disagree
O 4 - Agree
○ 5 - Agree strongly
E22 People often say I'm out of control.
1 - Disagree strongly
O 2 - Disagree
○ 3 - Neither agree nor disagree
O 4 - Agree
○ 5 - Agree strongly
E_ATTENTION Please select '1 - Disagree strongly' for this question.
O 1 - Disagree strongly
O 2 - Disagree
○ 3 - Neither agree nor disagree
🔿 4 - Agree
O 5 - Agree strongly

E23 It's true that I can be mean to others.

O 1 - Disagree strongly				
O 2 - Disagree				
○ 3 - Neither agree nor disagree				
O 4 - Agree				
○ 5 - Agree strongly				
E24 People who mess with me always regret it.				
O 1 - Disagree strongly				
O 2 - Disagree				
○ 3 - Neither agree nor disagree				
O 4 - Agree				
O 5 - Agree strongly				
 5 - Agree strongly 24 People who mess with me always regret it. 1 - Disagree strongly 2 - Disagree 3 - Neither agree nor disagree 4 - Agree 				
1 - Disagree strongly				
O 2 - Disagree				
○ 3 - Neither agree nor disagree				
O 4 - Agree				
○ 5 - Agree strongly				

E26 I enjoy having sex with people I hardly know.

1 - Disagree strongly
2 - Disagree
3 - Neither agree nor disagree
4 - Agree
5 - Agree strongly

E27 I'll say anything to get what I want.

1 - Disagree strongly
2 - Disagree
3 - Neither agree nor disagree
4 - Agree
5 - Agree strongly

End of Block: E - Dark Triad Personality

Appendix B

Sample Size Calculation

Table B1

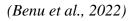
Correlations between Machiavellinism, Narcissism, Psychopathy and Attitude Towards

Homosexuality from Past Research (Benu et al., 2022)

Table 1. Bivariate Correlation among Attitude Towards Homosexuality and dark Triad Personality Traits					
	Attitude Towards Homosexuality				
Machiavellianism	-0.129				
Narcissism	-0.071				
Psychopathy	-0.283**				

Figure B1

G*Power Calculation of Total Sample Size with Machiavellianism Correlation Coefficient



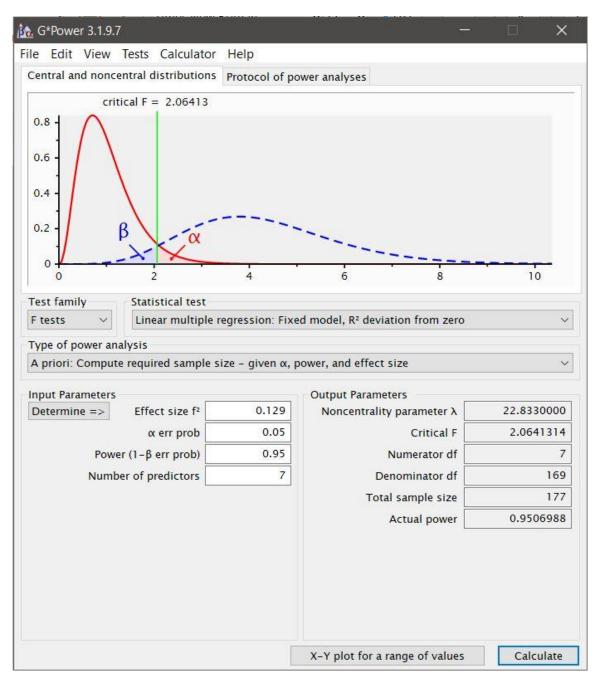


Figure B2

G*Power Calculation of Total Sample Size with Narcissism Correlation Coefficient (Benu et

al., 2022)

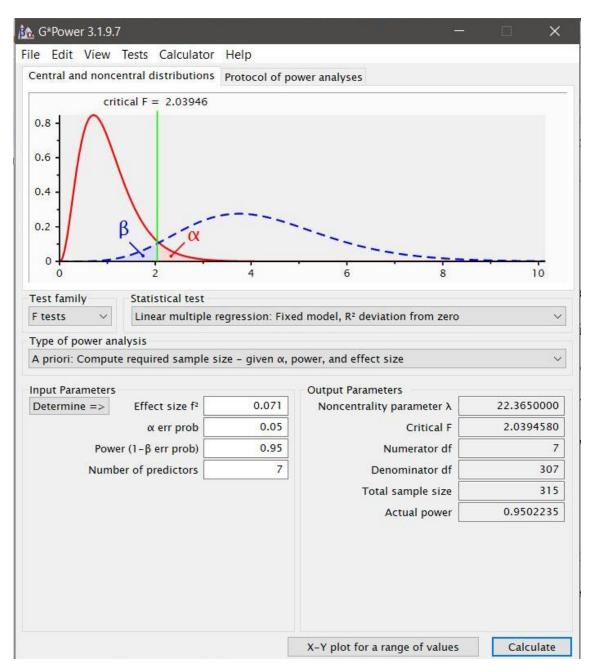
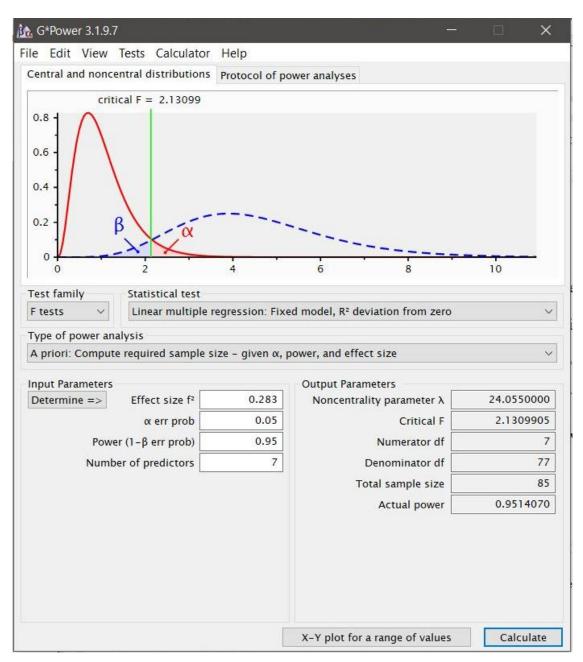


Figure B3

G*Power Calculation of Total Sample Size with Psychopathy Correlation Coefficient (Benu





Appendix C

Descriptives of Study Variables

	Descriptive	S		
			Statistic	Std. Error
New_Acceptance	Mean		63.5400	.94078
	95% Confidence Interval for	Lower Bound	61.6848	
	Mean	Upper Bound	65.3952	
	5% Trimmed Mean		64.3444	
	Median		64.5000	
	Variance		177.013	
	Std. Deviation		13.30464	
	Minimum		17.00	
	Maximum		85.00	
	Range		68.00	
	Interquartile Range		16.00	
	Skewness		804	.172
	Kurtosis		.888	.342
Mean_Interdependent	Mean		4.9450	.04680
	95% Confidence Interval for	Lower Bound	4.8527	
	Mean	Upper Bound	5.0373	
	5% Trimmed Mean		4.9367	
	Median		4.8667	
	Variance		.438	
	Std. Deviation		.66181	
	Minimum		2.73	
	Maximum		6.73	
	Range		4.00	
	Interquartile Range		.80	
	Skewness		.145	.172
	Kurtosis		.420	.342
E_Machiavellianism	Mean		3.5844	.04164
	95% Confidence Interval for	Lower Bound	3.5023	
	Mean	Upper Bound	3.6665	
	5% Trimmed Mean		3.5914	
	Median		3.5556	
	Variance		.347	
	Std. Deviation		.58881	
	Minimum		1.78	

Range	3.22	
	J.22	
Interquartile Range	.67	
Skewness	191	.172
Kurtosis	.397	.342
Mean	2.9183	.04127
95% Confidence Interval for Lower Bound	2.8370	
Mean Upper Bound	2.9997	
5% Trimmed Mean	2.9139	
Median	3.0000	
Variance	.341	
Std. Deviation	.58360	
Minimum	1.33	
Maximum	5.00	
Range	3.67	
Interquartile Range	.83	
Skewness	.126	.172
Kurtosis	.566	.342
Mean	2.4306	.04196
95% Confidence Interval for Lower Bound	2.3479	
Mean Upper Bound	2.5134	
5% Trimmed Mean	2.4236	
Median	2.5000	
Variance	.352	
Std. Deviation	.59345	
Minimum	1.00	
Maximum		
¥		.172
		.342
	Skewness Kurtosis Mean 95% Confidence Interval for Lower Bound Mean Upper Bound 5% Trimmed Mean Median Median Variance Std. Deviation Maximum Range Interquartile Range Skewness Kurtosis Mean Upper Bound 95% Confidence Interval for Lower Bound Skewness Lower Bound Skewness Lower Bound 5% Trimmed Mean Upper Bound 5% Trimmed Mean Upper Bound 5% Trimmed Mean Std. Deviation Median Upper Bound 5% Trimmed Mean Std. Deviation	Skewness191Kurtosis.397Mean2.918395% Confidence Interval forLower Bound2.9975% Trimmed Mean5% Trimmed Mean2.9139Median3.0000Variance.341Std. Deviation.58360Minimum1.33Maximum5.00Range3.677Interquartile Range.83Skewness.126Kurtosis.566Mean2.430695% Confidence Interval forLower Bound2.34792.51345% Trimmed Mean2.4236Mean2.5000Variance.352Std. Deviation.59345Minimum1.00Maximum4.25Range3.25Interquartile Range.325Interquartile Range.352Std. Deviation.59345Minimum1.00Maximum4.25Range3.25Interquartile Range.88Skewness.139

Appendix D

Kolmogorov-Smirnov Test

Tests of Normality

	Kolmogorov-Smirnov ^a		Shapiro-Wilk			
	Statistic	df	Sig.	Statistic	df	Sig.
New_Acceptance	.087	200	.001	.955	200	.000
Mean_Interdependent	.057	200	.200*	.990	200	.162
E_Machiavellianism	.101	200	.000	.986	200	.050
New_Narcissism	.086	200	.001	.984	200	.026
New_Psychopathy	.077	200	.006	.984	200	.025

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Appendix E

Histogram

Figure E1

Histogram of Homosexual Acceptance Distribution

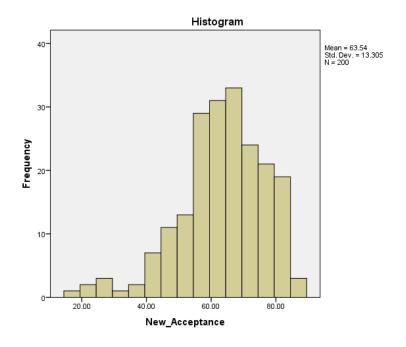


Figure E2

Histogram of Interdependent Self-Construal Distribution

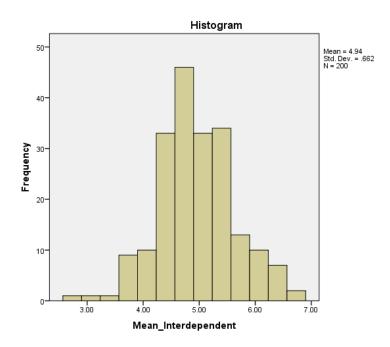
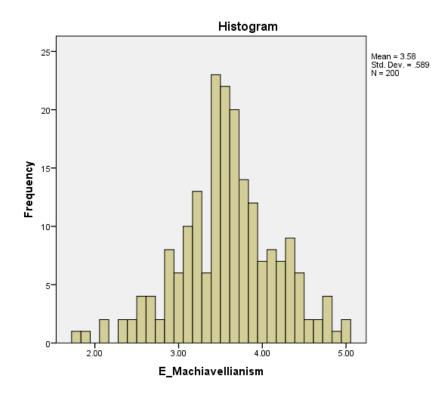


Figure E3

Histogram of Machiavellianism Distribution





Histogram of Narcissism Distribution

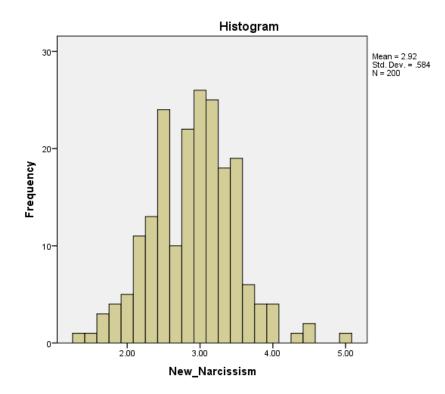
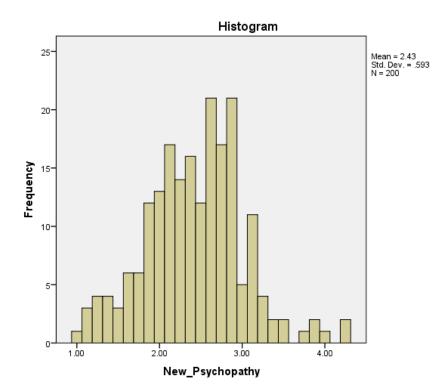


Figure E5

Histogram of Psychopathy Distribution



Appendix F

Figure F1

Q-Q Plot of Homosexual Acceptance Distribution

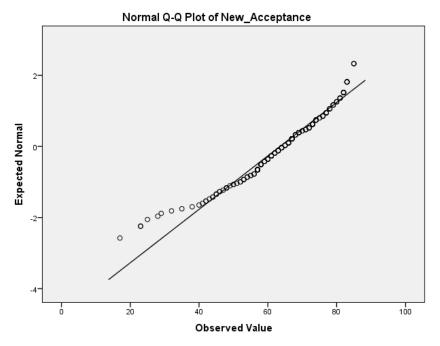


Figure F2

Q-Q Plot of Interdependent Self-Construal Distribution

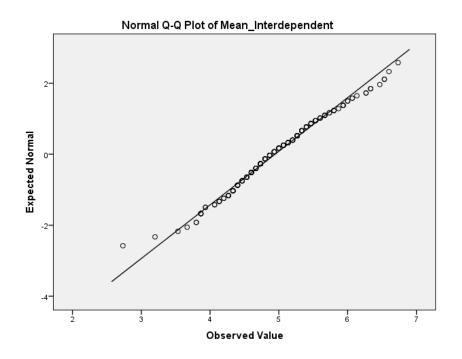


Figure F3

Q-Q Plot of Machiavellianism Distribution

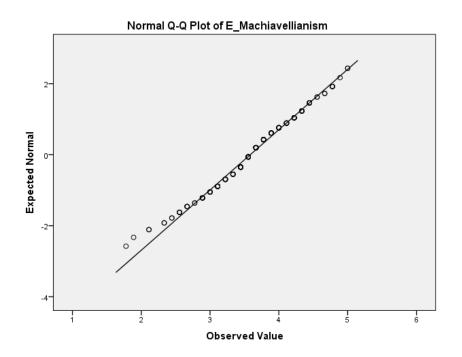
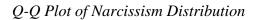


Figure F3



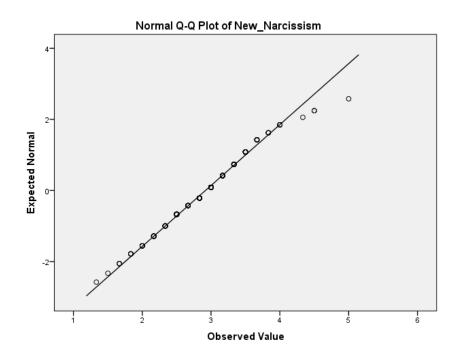
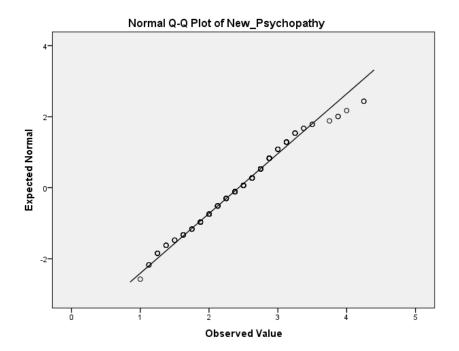


Figure F5

Q-Q Plot of Psychopathy Distribution



Appendix G

Correlation Table

Correlations	
--------------	--

F				ations	-			· · · · ·	r 1
			Mean_In	E_Machi		New_Ps			Religi
		New_Ac	terdepen	avellianis	New_Na	ychopath	Gend		ousn
		ceptance	dent	m	rcissism	у	er	Age	ess
New_Acceptanc e	Pearson Correlation	1	.033	.012	146 [*]	016	202 **	135 *	405 [*] *
	Sig. (1- tailed)		.323	.430	.019	.412	.002	.028	.000
	N	200	200	200	200	200	200	200	200
Mean_Interdepe ndent	Pearson Correlation	.033	1	.136*	.475**	.025	.044	.070	.014
	Sig. (1- tailed)	.323		.028	.000	.363	.269	.161	.421
	Ν	200	200	200	200	200	200	200	200
E_Machiavellian ism	Pearson Correlation	.012	.136 [*]	1	.354**	.449**	.053	159 *	188 [*] *
	Sig. (1- tailed)	.430	.028		.000	.000	.229	.012	.004
	Ν	200	200	200	200	200	200	200	200
New_Narcissis m	Pearson Correlation	146*	.475**	.354**	1	.414**	.042	093	.035
	Sig. (1- tailed)	.019	.000	.000		.000	.276	.095	.310
	Ν	200	200	200	200	200	200	200	200
New_Psychopat hy	Pearson Correlation	016	.025	.449**	.414**	1	.104	054	203 [*]
	Sig. (1- tailed)	.412	.363	.000	.000		.072	.222	.002
	Ν	200	200	200	200	200	200	200	200
Gender	Pearson Correlation	202**	.044	.053	.042	.104	1	.027	.043
	Sig. (1- tailed)	.002	.269	.229	.276	.072		.351	.274
	Ν	200	200	200	200	200	200	200	200
Age	Pearson Correlation	135*	.070	159 [*]	093	054	.027	1	.106
	Sig. (1- tailed)	.028	.161	.012	.095	.222	.351		.069

	Ν	200	200	200	200	200	200	200	200
Religiousness	Pearson Correlation	405**	.014	188**	.035	203**	.043	.106	1
	Sig. (1- tailed)	.000	.421	.004	.310	.002	.274	.069	I
	Ν	200	200	200	200	200	200	200	200

*. Correlation is significant at the 0.05 level (1-tailed).

**. Correlation is significant at the 0.01 level (1-tailed).

Appendix H

Moderation Results

Figure H1

Moderation Result of Homosexual Acceptance, Machiavellianism and Interdependent Self

Construal

Model :	1						
Y : 1	New Acce						
	E Machia						
	Mean Int						
	-						
Covariates	5:						
B2 Gende	N Relig	B10					
_	_						
Sample							
Size: 200	0						
*******	*******	******	*******	*********	********	********	******
OUTCOME VI	ARIABLE:						
New_Acce							
Model Summ	-						
		-	MSE			df2	P
.550	04 .	.3030	127.2169	13.9825	6.0000	193.0000	.0000
Model							
	coet		se		P		ULCI
constant	80.731					75.2000	
E_Machia	-1.109	97	1.4044	7901	.4304	-3.8797	1.6603
Mean_Int	1.012	20	1.2217	.8284	.4085	-1.3976	3.4215
Int_1	.312	26	2.0710	.1509	.8802	-3.7721	4.3973
B2_Gende	-5.100	07	1.7290	-2.9501	.0036	-8.5108	-1.6906
N_Relig	-13.004	16	2.5197	-5.1612	.0000	-17.9743	-8.0350
B10	-4.477	74	.8761	-5.1104	.0000	-6.2054	-2.7493

Figure H2

Moderation Result of Homosexual Acceptance, Narcissism and Interdependent Self Construal

```
Model : 1
     Y : New Acce
     X : New Narc
      W : Mean Int
Covariates:
 B2 Gende N Relig B10
Sample
Size: 200
***********
OUTCOME VARIABLE:
New Acce
Model Summary

        R
        R-sq
        MSE
        F
        dfl
        df2
        p

        .5834
        .3403
        120.4065
        16.5927
        6.0000
        193.0000
        .0000

Model
                    coeff se t
                                                                                        LLCI ULCI
                                                                           P
constant 79.9106
                                   2.6862 29.7485
                                                                        .0000 74.6125 85.2087

        New_Narc
        -4.8483
        1.5201
        -3.1895
        .0017
        -7.8465
        -1.8502

        Mean_Int
        2.9544
        1.3372
        2.2094
        .0283
        .3170
        5.5918

        Int_1
        -1.9192
        1.7243
        -1.1130
        .2671
        -5.3201
        1.4817

        B2_Gende
        -4.8924
        1.6635
        -2.9410
        .0037
        -8.1734
        -1.6114

N_Relig -13.7303
                                   2.4330 -5.6433
                                                                          .0000 -18.5290 -8.9315
                                     .8413 -4.8591
B10
                  -4.0880
                                                                          .0000
                                                                                        -5.7473
                                                                                                          -2.4286
```

Figure H3

Moderation Result of Homosexual Acceptance, Psychopathy and Interdependent Self

Construal

```
Model : 1
     Y : New_Acce
      X : New Narc
       W : Mean Int
Covariates:
B2 Gende N Relig Bl0
Sample
Size: 200
 OUTCOME VARIABLE:
 New Acce
Model Summary

        R
        R-sq
        MSE
        F
        dfl
        df2
        p

        .5834
        .3403
        120.4065
        16.5927
        6.0000
        193.0000
        .0000

Model
                                                                                    p
                       coeff
                                               se t
                                                                                                     LLCI ULCI

        constant
        79.9106
        2.6862
        29.7485
        .0000
        74.6125
        85.2087

        New_Narc
        -4.8483
        1.5201
        -3.1895
        .0017
        -7.8465
        -1.8502

        Mean_Int
        2.9544
        1.3372
        2.2094
        .0283
        .3170
        5.5918

        Int_1
        -1.9192
        1.7243
        -1.1130
        .2671
        -5.3201
        1.4817

        B2
        Cando
        -4.8924
        1.6625
        -2.9410
        .0037
        -9.1724
        -1.6114

B2 Gende -4.8924 1.6635 -2.9410
                                                                                 .0037 -8.1734 -1.6114
                                       2.4330 -5.6433
                                                                                 .0000 -18.5290 -8.9315
N_Relig -13.7303
B10
                    -4.0880
                                          .8413 -4.8591
                                                                                 .0000 -5.7473
                                                                                                                      -2.4286
```

Appendix I

Ethical Clearance Letter



UNIVERSITI TUNKU ABDUL RAHMAN DU012(A)

Wholly owned by UTAR Education Foundation Co. No. 578227-M

Re: U/SERC/326/2023

21 December 2023

Dr Pung Pit Wan Head, Department of Psychology and Counselling Faculty of Arts and Social Science Universiti Tunku Abdul Rahman Jalan Universiti, Bandar Baru Barat 31900 Kampar, Perak.

Dear Dr Pung,

Ethical Approval For Research Project/Protocol

We refer to the application for ethical approval for your students' research project from Bachelor of Social Science (Honours) Psychology programme enrolled in course UAPZ3013/UAPZ3023. We are pleased to inform you that the application has been approved under Expedited Review.

The details of the research projects are as follows:

No	Research Title		Student's Name	Supervisor's Name	Approval Validity		
1.	Dark Triad Personality and Public Acceptance of Homosexuals Among Malaysian Adults: Interdependent Self-Construal as a Moderator	1.	Muriel Wong Jie Chee See Tong Shin				
2.	Mating Orientation and Dark Triad Personality on Sexting Behaviour: A Comparative Study Between Male and Female Emerging Adults in Malaysia	1.		Dr Tan Soon Aun			
3.	Relationship Between Public Mental Health Stigma, Mental Health Literacy, and Help-seeking Behaviour Among Adults in Malaysia	1. 2. 3.	Chew Jia Xin		21 December 2023 – 20 December 2024		
4.	The Relationship Between Fear of Missing, Social Media Flow Experience and Social Media Addiction Among University Students in Malaysia	1. 2. 3.	See Rou Yee	Dr Ooh Seow Ling			
5.	Relationship Between Intolerance of Uncertainty, Mindfulness, and Social Anxiety	1. 2. 3.	Ch'ng Zer Swen Wong Jin Yau Yaw Suet Kuan				

The conduct of this research is subject to the following:

- (1) The participants' informed consent be obtained prior to the commencement of the research;
- (2) Confidentiality of participants' personal data must be maintained; and
- (3) Compliance with procedures set out in related policies of UTAR such as the UTAR Research Ethics and Code of Conduct, Code of Practice for Research Involving Humans and other related policies/guidelines.
- (4) Written consent be obtained from the institution(s)/company(ies) in which the physical or/and online survey will be carried out, prior to the commencement of the research.

Kampar Campus : Jalan Universiti, Bandar Barat, 31900 Kampar, Perak Darul Ridzuan, Malaysia Tel: (605) 468 8888 Fax: (605) 466 1313 Sungai Long Campus : Jalan Sungai Long, Bandar Sungai Long, Cheras, 43000 Kajang, Selangor Darul Ehsan, Malaysia Tel: (603) 9086 0288 Fax: (603) 9019 8868 Website: www.utar.edu.my



Should the students collect personal data of participants in their studies, please have the participants sign the attached Personal Data Protection Statement for records.

Thank you.

Yours sincerely,

Professor Ts Dr Faidz bin Abd Rahman Chairman UTAR Scientific and Ethical Review Committee

c.c Dean, Faculty of Arts and Social Science Director, Institute of Postgraduate Studies and Research



