Unwanted Celibacy and the Pathways to Misogyny: Exploring the Influence of Social Dominance Orientation and Right-Wing Authoritarianism and the Big Five Personality Traits

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Abstract

This study builds upon previous research by investigating the role of social dominance orientation (SDO), right-wing authoritarianism (RWA), and the Big Five personality traits in shaping misogynistic attitudes within a mixed sample of people who experience unwanted celibacy and the general population. By analyzing political, social and personal characteristics within this mixed sample, this study aims to provide a comprehensive understanding of the predictors of misogynistic attitudes. The study collected self-report data from a convenience sample of 104 participants, indicating that higher levels of SDO and RWA are significantly associated with the endorsement of misogynistic attitudes. Additionally, certain traits within the Big Five personality framework, such as low agreeableness and low openness to experience, also show a positive correlation with misogynistic attitudes. These findings highlight the importance of considering multiple psychological factors in understanding and addressing the development of misogynistic beliefs. Future research should investigate the complex interplay between SDO, RWA, the Big Five, and other relevant variables to deepen our understanding and develop more targeted interventions to counteract misogynistic attitudes within the Incels community and society at large.

Keywords: Unwanted celibacy, misogyny Social Dominance Orientation, Right-Wing Authoritarianism, Big Five personality traits, gender-based inequality, psychological factors

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In their song "People are strange" by the American rock band "The Doors", Jim Morisson and colleagues famously sang:

People are strange

When you're a stranger

Faces look ugly

When you're alone

Women seem wicked

When you're unwanted

encapsulating the haunting sentiment that pervades the world of people who identify themselves as *Incels*. The term "incel" derives its meaning from the combination of the words "INvoluntary" and "CELibate" and is used as an epithet to describe a demographic made up from mostly men between the ages of 19 and 31, who consider themselves socially awkward, physically unattractive and unable to form a sexual relationships with women (Blake & Brooks, 2022; Fontanesi et al., 2022). Ironically, the term was first coined in 1997 by a queer Canadian student, who created an online forum named "Alana's Involuntary Celibacy Project" with the goal to create an online community, which should have acted as a support group for those who struggled forming intimate relationships (Palma, 2019). However as the movement grew for the next 20 years, the topic of involuntary celibacy quickly became interlaced with discussions about men's rights, followed by a shift towards advocating for blame, hatred and violence towards women (Young, 2019). For example contemporary incel ideology insist that sex is a basic human right and rejection of sexual advances should be a punishable crime, advocating for

policies which should be aimed at "redistributing sex", easing access to sex workers, limiting or simply eliminating women's rights amongst other various misogynistic views (Blake & Brooks, 2022).

In online spaces, incels have developed an unique set of vocabulary, creating new terms derived from already existing ones, such as Inceldom, which encompasses the behaviors and beliefs associated with being an incel (Scheuerman, 2021) For example, incel philosophy describes the so-called "sexual marketplace" through the economic "Pareto Principle" which explains market distribution in which 20% of the richest individuals own 80% of the planet's wealth; conversely, incels believe that in the same fashion, 20% of the most dominant, educated and physically attractive males are hoarding 80% of the female population (Jones, 2020). Therefore, they argue that this reduces the rest of the men's possibility to find a suitable sexual partner and in turn erodes their social status, focusing on perceived restrictions society placed on them, rather than reflecting on their own attitudes, beliefs and actions (Hargreaves, Mooney, 2023).The incel worldview is notable for its strong moralistic and black-and-white nature. It categorizes people into two distinct groups: the "good" and the "bad". Within this context, incels are considered the "good" people and they can be divided into two main types (Cottee, 2020). The first type are incels who are "redpilled", which is a reference to a scene in The Matrix movie, wherein the protagonist is offered a pill which reveals the truth about the world. Individuals, who are redpilled acknowledge the perceived hostility incels are subjected to (Preston, Halpin & Maguire, 2021). The second type, referred to as "the blackpilled" not only recognizes the world's hostility, but also embraces it, accepting their sorry fate. Blackpilled individuals are seen as an elite group among incels, perceiving the world without illusions or wishful thinking (Preston, Halpin & Maguire, 2021). Conversely, the "bad" people are identified as women and sexually successful men, referred to as "Stacys" and "Chads" respectively (Cottee, 2020). Incels resent "Stacys" because they desire them, but find them unattainable, while they envy "Chads" because they possess qualities, such as sexual charisma and partners that incels feel they

lack.This combination of resentment and envy fuels an intense hatred towards both Stacys, who are portrayed as shallow and untrustworthy, and Chads, who are ridiculed as unintelligent and obnoxious (Cottee, 2020).

It is important to mention that incels almost exclusively operate in online environments and do not discuss their incel status with family or acquaintances offline (Pelzer, et.al., 2021; Speckhard, et.al., 2021). Moreover, they do not discuss their philosophies on large platforms with relatively adequate moderation like Facebook and Twitter. Instead, they meet in internet forums run by private individuals who are incels themselves, where they create a "safe space", also called "the manosphere" in which they can express their misogynistic hostility, frustrations and blame towards society, but specifically women for their perceived failure to include them as romantic partners (Pelzer, et.al.,2021).The term "manosphere" has emerged during the course of recent years and has gained significant attention as a collection of distinct communities sharing a common interest in masculinity and their perceived challenges (Ribeiro, et.al.,2021). Within this conglomerate, various groups such as Pick Up Artists (PUAs), Men's Rights Activists (MRAs), Men Going Their Own Way (MGTOW) and Involuntary Celibates (Incels) have witnessed a surge in membership and their involvement in both online harassment and real-world instances of violence (Ribeiro, et.al.,2021).The manosphere entails websites like incels.is,4chan and Reddit, who have such spaces where hostility towards women and feminism is widely endorsed and similar misogynistic attitudes are promoted (Marwick, Caplan, 2018). Irregardless or where it is expressed - be it online or offline, misogyny results in the same outcome - women feeling unsafe and having less possibilities of professional and social nature (Morssinkhof, 2021). Ever more worrying is that over the past few decades a number of self-identified incels have translated their online-practiced misogyny into acts of violence, as one of the most violent terrorist attacks of misogynistic nature were enacted by Alek Minassian, who murdered 10 people, 8 of whom were women, by striking them with a van in April, 2018 in Toronto, Canada. His motives were made apparent through posts on his social media page,

where he stated "Private (Recruit) Minassian Infantry 00010, wishing to speak to Sgt 4chan please. C23249161. The Incel Rebellion has already begun! We will overthrow all the Chads and Stacys! All hail the Supreme Gentleman Elliot Rodger!" (Hoffman, 2020). Due to several cases of violent attacks resulting in deaths such as the one above, within academic discourse the incel movement has been categorized as a terrorist group. This is attributed to incel ideologies, which are perceived to be deeply rooted in sexist and misogynistic ideologies and violent beliefs (Pantucci & Ong, 2020). The lyrics of the song "People are strange" highlight the lived experiences of individuals identifying as incels, who face social isolation and feelings of otherness. However, these psychological experiences of being alone and desiring sexual relationships can also be relevant to anyone who is single, inexperienced or lacking a partner.

This paper will research the question "Does unwanted celibacy relate to sexist and misogynistic ideologies". The purpose of the study will be to explore to what extent unwanted celibacy relates to misogynistic attitudes among a mixed sample of incels and non-incels, male and female participants. First the study is going to outline the link between unwanted celibacy and misogyny, followed by introducing factors, which can be behind the formation of hostile sexist attitudes.Subsequently, personality attributes and socio-political beliefs, which can lead to the formation of misogynistic attitudes will be presented. Next the hypotheses will be outlined and later on tested and discussed.

Unwanted Celibacy and Misogyny

In this section what unwanted celibacy is and how it may be linked to misogynistic attitudes will be discussed. This will be done through analyzing and outlining various negative experiences people who experience unwanted celibacy may have had.

The term "unwanted celibacy" is defined as a psychological experience characteristic of, but not exclusive to incels is associated with misogynistic attitudes amongst men (Granau, et.al., 2022).Interestingly, there is a limited amount of previous research that has explored the link between unwanted celibacy and misogyny. Therefore, in this study the term "unwanted celibacy" will be used instead of the term "involuntary celibacy" as the latter is commonly strictly associated with incels, while it is believed that the association between unwanted celibacy and misogyny extends beyond that group (Moskalenko et.al., 2022).

Regarding the link between unwanted celibacy and misogynistic attitudes, researchers have proposed that the rise of gender equality has given women more freedom to remain single or "pair upward" for reasons other than economic necessity (Blake & Brooks, 2022). This has resulted in increased competition among men for the attention of a smaller pool of available women (Blake & Brooks, 2022). It is suggested that unwanted celibacy is linked to sexism and misogyny in some men because frustration and unhappiness resulting from unmet sexual desires may give rise to antipathy towards women whom they want, but perceive as being rejected by. Support for this notion can be found in prior research, as instances have been observed where men, who are rejected by women often respond with anger, aggression and in some cases, homicidal violence (Downey et.al,2000; Kelly et.al.,2015; Wilson & Daly, 1993).

Prolonged periods of involuntary celibacy can evoke feelings of rejection, frustration, and diminished self-worth, which can potentially lead to the formation of misogynistic attitudes fueled by chronically unfulfilled high male sexual desire (Granau et al., 2022). These negative emotions can become intertwined with interactions with women, fostering a broader resentment towards women in general. The experience of feeling unwanted or undesirable can generate a sense of bitterness and hostility, which some individuals may generalize to all women.

Moreover, a study developed by Blake and colleagues found that men who interacted with a woman whom they sexually objectified, are more likely to prioritize sexual activity, and when their sexual advances are rejected, they are more likely to display hostile attitudes towards women (Blake, Bastian & Denson, 2018). Repeated occasions of rejections can also prompt men into readily expecting rejection on subsequent events, further predisposing individuals to react aggressively towards actual or perceived rejection, as well as towards the specific group which rejects them (Granau, et.al.,2022). Therefore, unwanted celibacy may turn individuals towards adapting misogynistic attitudes towards women, as it is suggested that misogyny can be a by-product of chronically unfulfilled sexual desires (Granau, et.al.,2022).

Further research on unwanted celibacy has also indicated that feelings of dissatisfaction, frustration and hopelessness arising from a lack of relationships can be linked to the emergence of anti-feminist rhetoric and attitudes (Granau, et.al,,2022). This however does not apply strictly to incels, but to the general population of men, indicating that anti-feminist ideologies can permeate beyond specific subcultures, as the study by Granau and colleagues (2022) has shown that men experiencing unwanted celibacy often internalize societal expectations surrounding traditional gender roles and may resort to anti-feminist ideologies as a means of regaining a sense of control and validation. This suggests a complex interplay between personal experiences of unwanted celibacy, societal norms and the development of anti-feminist attitudes.

Moreover, studies have observed that both men and women exhibit preferences for certain characteristics in their short-term and long-term partners. In the context of short-term mating, not only do both men and women value physical attractiveness, which encompasses traits such as attractiveness, health, sex drive and athleticism, they prioritize these characteristics as a necessity (Li, Kenrick, 2006; Regan et.al.,2000). Other characteristics such as intelligence, honesty and warmth also influence an individuals' acceptability of a mate, however they are less critical towards short-term mating and much more valued when considering a long-term romantic relationship (Reagan et.al.2000). It is important to note that these preferences may not be beneficial for individuals experiencing unwanted celibacy, as incels perceive themselves less physically attractive and with lower social status in terms of education and employment compared to others, especially with emphasis on short-term mate preferences could be a source of frustration. These discrepancies could hinder unwanted celibates' success in attracting sexual partners based on the criteria and therefore could also explain why individuals who identify themselves as incels give support to anti-promiscuity norms. Moreover, in their work Ziegler and colleagues applied a socio-cultural and feminist lens in order to analyze whether monogamy harms women, highlighting that support for monogamous norms and conversely, rejection of polyamorous norms upholds a system of gender oppression (Ziegler, et.al., 2014). Monogamy's tendency to uphold certain restrictions on women's autonomy as well as its pivotal role in situating women in relationships, that perpetuate their roles as the inferior gender, helps to maintain gendered power differentials that serve to further oppress women (Ziegler, et.al.,2014). From these findings, we can conclude that a support for anti-promiscuity norms can translate into misogynistic views.

In this section, a definition of the concept unwanted celibacy was given, followed by linking the term to sexism and misogyny. Subsequently, unmet sexual desires, feelings of rejection and particularly repeated rejection were given as a reason for unwanted celibates' aggression and violence towards women. Moreover, it was indicated that unwanted celibacy

results in adapting anti-feminist attitudes and misogynistic attitudes in general. Next, the sexual preferences of each gender were outlined, emphasizing that both men and women prioritize sexual appeal for short-term mating, explaining unwanted celibates' support for anti-promiscuity. In the next section, other well-established social, cultural, and political factors explaining misogyny will be discussed.

Other Factors Explaining Misogyny

Before the sociocultural and political factors explaining misogyny are explored, it would be useful to define it. The term itself derives from the Ancient Greek word "mīsoguníā" which translates to hatred towards women and manifests in different shapes, such as male privilege, patriarchy, gender discrimination, sexual harassment, belittling of women, violence against women, and sexual objectification (Srivastava, et.al., 2017). In this paper, the focus will be mainly on violence against women and sexual objectification, in order to identify how those aspects are related to unwanted celibacy. Feminist ideology has long postulated that violence against women is a direct consequence of the continuous exploitation perpetuated by the patriarchal social structure, affecting both men and women as both victims and perpetrators of violence (Lindner, 2022). The patriarchal system reinforces traditional masculine gender roles, accentuating a hegemonic hierarchy between genders and imposing standards for men and women to adhere to. This framework enables the ongoing dominance of men over women, reinforcing power imbalances and contributing to the perpetuation of misogyny (Lidner, 2022). Recognizing the intricate relationship between misogyny and violence, Diaz and Valji (2019) argue that misogyny serves as a gateway to more extreme forms of violence. Therefore, it is crucial to acknowledge and categorize misogyny, along with its associated aspects, as warning signs of extremist behavior, calling for comprehensive understanding and targeted interventions.

Media and popular culture play a significant role in shaping societal attitudes towards gender and can contribute to the perpetuation of misogyny (Seabrook, Ward & Giaccardi, 2019).

The portrayal of women in various forms of media, including movies, music, television shows, and online platforms, often reinforces stereotypes and objectifies women, thereby perpetuating a culture of misogyny (Vickery & Everbach, 2018). Women are frequently depicted as objects of desire, valued primarily for their physical appearance, while their other qualities and contributions are overlooked. This objectification not only devalues women but also fosters a hostile environment where women are reduced to mere commodities for male gratification. The depictions of women in media can contribute to the normalization of misogynistic attitudes, influencing individuals' perceptions of gender and relationships (VIckery & Everbach 2018). By constantly reinforcing traditional gender roles and portraying women as passive and subservient, media representations contribute to the perpetuation of unequal power dynamics between men and women. Moreover, the media often emphasize the importance of sexual prowess and romantic relationships, creating unrealistic standards that can exacerbate feelings of inadequacy and frustration, particularly for individuals experiencing unwanted celibacy. These frustrations, if not addressed and understood, can potentially intensify misogynistic beliefs and attitudes (Seabrook, Ward & Giaccardi, 2019). Unwanted celibates, who primarily operate online, may be particularly vulnerable to developing misogynistic attitudes due to the influence of media in shaping their perceptions and experiences (Seabrook, Ward & Giaccardi, 2019). Online platforms can amplify and reinforce harmful stereotypes and objectification of women, providing a breeding ground for the cultivation of misogynistic ideologies. The anonymity and distance provided by online interactions can further embolden individuals with such attitudes, facilitating the expression of misogynistic views and behaviors. The emergence of dating apps in the modern mating market further complicates the dynamics of connection. Research specifically focusing on incels' experiences with dating apps reveals that despite adopting more liberal strategies, incels encounter difficulties in finding matches, engaging in conversations, and arranging in-person meetings (Costello, et.al.,2022). This suggests that frequent presence in

online platforms can perpetuate feelings of exclusion and frustration, potentially influencing the development of misogynistic attitudes.

The perceived loss of male privilege can be a significant factor contributing to the development of misogynistic attitudes, particularly in the context of unwanted celibacy. In her book "Down Girl" (2017), Kate Manne argues that men who enjoy a relatively high degree of power and privilege may exhibit a proprietary sense when it comes to women, especially in domains where their dominance is expected. This proprietary sense can be challenged or threatened when women assert their autonomy or when male rivals infringe upon perceived ownership (Manne, 2017). Individuals who feel that their masculinity or self-worth is tied to their sexual and romantic success may seek to regain a sense of control and power by devaluing women. This wounded entitlement, as highlighted by Lindner (2022), can fuel a sense of resentment and hostility towards women, leading to the development of misogynistic attitudes and behaviors. Moreover, individuals belonging to dominant arbitrary-set groups are anticipated to exhibit elevated levels of Social Dominance Orientation (SDO) compared to individuals from subordinate groups. This tendency stems from their desire to uphold and perpetuate the advantageous access they enjoy to social and economic resources, which is inherent to their privileged position (Pratto, Sidanius & Levin, 2006).

Unwanted celibacy can intersect with economic and political structures, potentially contributing to the formation of misogynistic attitudes. Evidence from evolutionary psychology provides insights into the dynamics of attraction and mate selection, highlighting the role of socioeconomic status. Studies have consistently shown that women tend to value partners with financial prospects, emphasizing the significance of economic factors in romantic relationships (Costello, et.al., 2022). Moreover, studies have found that high income inequality, male-biased sex ratios, and low gender pay gaps predict higher levels of online incel activity (Brooks et al., 2022). These findings indicate that socioeconomic disparities contribute to the challenges faced by involuntary celibates in forming relationships, can influence their perceptions of gender

dynamics and thereby can translate into the formation of misogynistic attitudes. Moreover, economic uncertainties, such as job insecurity, income inequality, and economic downturns, can create a sense of anxiety and threat among individuals (Dehdari, 2022). In times of economic instability, people may seek stability and security, which can lead them to be more receptive to authoritarian ideologies (Dehdari, 2022). Right-wing authoritarianism often offers a sense of order, traditional values, and a strict social hierarchy that may be appealing to those experiencing economic insecurities and will be elaborated on in the next section.

This section began by defining misogyny, followed by outlining already existing patriarchal structures as factors, which can explain misogyny. Subsequently a link between economic inequality, loss of male privilege, negative experiences with women and development of misogynistic views within unwanted celibates was made. Next, the media portrayal of women online, in combination with the fact that unwanted celibates predominantly operate online, outlined the development of hostile sexist attitudes. All these factors are well documented contributors to misogyny in general in social sciences, but social and personality psychological factors such as social dominance orientation, right-wing authoritarianism and personality are often overlooked, which will be elaborated upon in the next section.

Social Dominance, Right-wing Authoritarianism and Personality Attributes Predicting Misogyny

As already mentioned, most often incels share their radical beliefs online, however internet communities are not the only enablers of misogyny, as right-wing authoritarianism and social dominance orientation are a couple of the main factors which predict men's advocacy for hatred of women (Hargreaves, Mooney, 2023). Social dominance orientation (SDO) is a concept which dictates that there are existing hierarchies between various demographics within society and

those who endorse such beliefs prefer this inequality and group-based hierarchy, as they wish to reign and to be superior over other groups (Morssinkhof, 2021).Individuals high in SDO perceive the world as a competitive arena, where resources are limited and obtaining them is akin to a zero-sum game (Renström,2023). Specifically concerning gender relations, this implies that any gains in status and privileges by women are perceived as losses for men, leading to a motivation among men with high SDO to resist and counter feminist progress.Given their inclination toward competitive dynamics in gender relations, individuals scoring high on SDO are also more likely to perceive women's efforts to challenge male dominance, resulting in the manifestation of hostile sexism (Renström, 2023). Moreover, in their paper, Austin and Jackson (2019) describe SDO as a strong predictor of hostile sexism, which also reflects misogyny, due to the fact that it endorses the inequality between men and women. Due to the fact that misogyny and SDO are strongly linked, SDO could prove to be a catalyst for inceldom (Hansmeyer, 2021).

As the name suggests, individuals who endorse right wing authoritarianism (RWA) tend to have a preference for political conservatism, authoritarian submission and authoritarian aggressions such as the support for punitive practices in order to maintain and conserve traditional values (Renström,2023). Various studies have indicated a link between RWA and benevolent sexism or in other words, those who score highly on the RWA scale view the world as a dangerous place and advocate that women need protection from men (Austin, Jackson, 2019). However individuals who share RWA attitudes will also argue against women's rights in an attempt to hinder gender equality and neutralize it as a threat to the traditional social hierarchy (Austin, Jackson, 2019). The line of thought dictating that society is perilous for women and they need the protection of men immediately suggests that women are the lesser sex, which links to incels' beliefs about women, as if women represent the lesser sex, incels will act against them in a way which reflect their social hierarchy (Hargreaves, Mooney, 2023)
In brief, we can safely conclude that SDO and RWA are both strongly linked to sexist and

misogynistic attitudes, which in turn can contribute to the incel ideology that women are inferior to men and should be controlled.

The big five personality traits, namely openness, conscientiousness, extraversion, agreeableness and neuroticism play a significant role in understanding individual differences in attitudes and behaviors. In the content of this paper, exploring the relationship between unwanted celibacy and misogynistic ideologies, examining the influence of personality traits could prove to be crucial. Previous research has suggested that certain personality traits may contribute to the development or reinforcement of such attitudes. For example, individuals scoring high in neuroticism may be more prone to experiencing frustration, unhappiness and general dissatisfaction from life, which could potentially influence their views on relationships and attitudes on women (Cheng & Furnham, 2002). Moreover, in their study Goldberg (1972) and colleagues found a positive relationship between misogyny in men and neuroticism. Next, when researching the personality of individuals with prejudices, prejudices have a negative relationship with agreeableness and similarly, agreeableness has a negative relationship with sexism (Bieselt, 2020). Thus, we can assume that individuals who score low in agreeableness can exhibit more misogynistic attitudes than others. Next, previous research has shown that in Greek-speaking adults, there is evidence to suggest that lower extraversion scores are associated with a higher likelihood of experiencing involuntary singlehood and longer periods of being single (Apostolou & Tsangari, 2022). Understanding how the Big five personality traits interplay with the other predictor variables can provide valuable insights into the underlying mechanisms shaping attitudes related to unwanted celibacy, sexism and misogyny.

In this section, the link between various personality attributes, more specifically, the Big 5 personality traits, social dominance orientation and support for right-wing authoritarian ideologies were linked with misogynistic attitudes. The following section is going to introduce the course of action for the present research, as well as the hypothesis that will be tested.

What Beliefs can be Considered as Misogynistic?

In this section, the aspects of anti-feminist attitudes, hostility towards women and anti-promiscuity attitudes will be elaborated on, in order to explain the motivation behind the choice to investigate these concepts as expressions of misogyny.

Early men's liberationists aimed to attract men to feminism by highlighting the detrimental aspects of traditional male roles. They emphasized the impoverishment, unhealthiness, and even lethality associated with these roles and issues such as emotional stoicism, unequal child support obligations, mandatory male-only drafts, and the pressures of conforming to narrow definitions of masculinity as breadwinners or protectors were key concerns for early men's liberationists (Lindsay, 2020). However, despite the potential for a movement that could work in synergy with feminism, reconciling the tensions between acknowledging male structural power and privilege while also addressing the costs of masculinity proved challenging. By the late 1970s, the movement splintered into two factions. On one side, there were pro-feminist men's groups, while on the other side were groups that opposed the feminist assertion that patriarchy primarily benefits men over women (Messner, 1998). Some men's liberationists attempted to give equal weight to the limitations and oppressions faced by both women and men, recognizing the structural disadvantages women encountered (Lindsay, 2020). In contrast, others tried to dismiss men's institutional power and privilege as a myth (Lindsay, 2020).

Over time, while feminist scholarship has shed light on the harmful and flawed social construction of "sex roles," the discourse of "men's rights" has increasingly adopted a narrowly conservative language, transforming into an openly antagonistic anti-feminist movement. Feminism came to be portrayed as a conspiracy aimed at concealing the "reality" that women possess power while men are the most oppressed (Messner, 1998). The recent rise of feminism and the increasing acceptance of women's rights have arguably triggered a countermovement

against feminism, as many people who identify as incels perceive their oppression as a direct consequence of contemporary feminist ideals and therefore develop anti-feminist attitudes (Hargreaves & Mooney, 2023). Through examining anti-feminist beliefs within a mixed sample of individuals who experience unwanted celibacy and the general population, the paper aims to delve deeper into the underlying factors that contribute to the perpetuation of misogyny.

Hostility toward women is another manifestation of misogyny. Individuals who have prolonged experiences of unwanted celibacy are often characterized by their misogynistic attitudes, driven by a belief in their entitlement to sexual experiences (Hargreaves & Mooney, 2023). This sense of entitlement can contribute to the development of misogyny and hostile attitudes towards women (Hargreaves & Mooney, 2023). Previous studies on the topic have discovered that the inability to engage in sexual activities or facing rejection from women can lead to feelings of distress, loss of masculinity, humiliation, and anger (Hoffman et al., 2020). These negative emotions can then manifest as hostility towards women, whom incels often blame for their perceived humiliation. Therefore through examining an individuals' inclination regarding hostility towards women, the study aims to investigate the causal link between this aspect and misogyny.

Lastly, the notion of "promiscuity" plays a significant role in perpetuating sexism and misogyny. The term is often used pejoratively to describe engaging in sexual activity with multiple partners, accompanied by negative judgments that imply over-sexualization, irresponsibility, and low moral standing (Cardoso, Klesse, 2022). These attitudes form part of the oppressive repertoire of sexism and misogyny, historically employed to justify the subordination of women and other marginalized groups. By stigmatizing those who deviate from societal norms of sexual purity and monogamy, these beliefs and judgments contribute to the perpetuation of gender inequalities and can even legitimize violent actions against those deemed transgressors (Cardoso, Klesse, 2022). Understanding the role of such beliefs and their

interconnectedness with broader structures of misogyny is crucial in developing strategies to challenge and address these harmful ideologies.

Present Study

This section will introduce the three hypotheses that will be investigated in the present study.

From the previous research findings stated above, it has become clear which attitudes, experiences and political beliefs can be considered as contributing to misogyny (Morssinkhof, 2021). Some of the psychological factors such as feelings of repeated rejection and humiliation have been linked to endorsement of violence and hostility, especially against women. Additionally, not many studies have researched the link between psychological factors stated above, political views such as RWA and SDO and misogyny (Austin, Jackson, 2019 ; Hargreaves, Mooney, 2023). Therefore, it is of vital importance to research such factors in order to determine what their role is in shaping misogynistic thought, in order to design and create interventions aimed at lowering the amount of violence women face be it online or offline.It is important to note that even though a lot of the factors have been linked to incels specifically, this study will focus not only on incels, due to the fact that misogyny can be found in the general population as well (Scaptura, 2019). In addition, the study will not only focus on men, but on women as well, due to the fact that multiple studies have indicated that women can also endorse misogynistic beliefs (Austin & Jackson, 2019) Thus, this study will research the question "Does unwanted celibacy relate to sexist and misogynistic ideologies". The purpose of the study will be to explore to what extent unwanted celibacy relates to misogynistic attitudes among a mixed sample of incels and non-incels, male and female participants.

Hostility towards women, encompassing negative attitudes, beliefs, and emotions expressed towards women, will serve as a key variable in this study. It is defined by a spectrum

of behaviors ranging from objectification, harassment, and discrimination to the extreme of violence. Understanding the presence and extent of hostility towards women is crucial in examining the relationship between unwanted celibacy and misogynistic ideologies. The experience of unwanted celibacy may potentially amplify feelings of frustration or resentment, which can, in turn, contribute to the development of hostile attitudes towards women. In order to explore and measure misogynistic attitudes, various indicators will be investigated, including hostile attitudes towards women (HWO), support for anti-promiscuity beliefs, and beliefs regarding gender egalitarianism. By delving into these indicators, this study aims to gain insights into the complex interplay between unwanted celibacy, hostile attitudes towards women, and misogynistic thought, in order to test out the hypothesis:

Hypothesis 1: Unwanted celibacy contributes to the shaping of hostile attitudes towards women.

In addition to examining the impact of unwanted celibacy on hostility towards women, this study aims to investigate its potential influence on attitudes towards female promiscuity. Previous studies have highlighted the association between psychological factors, political views, and misogynistic beliefs (Austin & Jackson, 2019; Hargreaves & Mooney, 2023). It is posited that individuals experiencing unwanted celibacy may harbor negative perceptions or judgments towards women who engage in perceived promiscuous behavior. The frustration or feelings of social exclusion associated with their celibacy status may contribute to a heightened emphasis on traditional gender norms and a disapproval of women who deviate from societal expectations. By exploring the relationship between unwanted celibacy and attitudes against female promiscuity, this study aims to shed light on the complexities of misogynistic ideologies within the context of celibacy experiences, in order to test the second hypothesis:

Hypothesis 2: Unwanted celibacy contributes to the shaping of attitudes against female promiscuity.

Moreover, it has been suggested that individuals experiencing unwanted celibacy may develop negative perceptions towards feminism. Building upon previous research that has linked psychological factors and political beliefs to misogyny (Morssinkhof, 2021; Austin & Jackson, 2019), this study aims to investigate the role of unwanted celibacy in shaping misogynistic attitudes. The frustration or resentment associated with their celibacy status could potentially fuel the rejection or opposition to feminist ideologies, viewing them as a threat to traditional gender roles or a challenge to their own personal struggles. By exploring the relationship between unwanted celibacy and anti-feminist attitudes, this study seeks to contribute to a deeper understanding of the complex factors influencing misogynistic thought and thereby answer the third hypothesis:

Hypothesis 3: Unwanted celibacy contributes to the shaping of anti-feminist attitudes.

Additionally, the variables right-wing authoritarianism (RWA) and social dominance orientation (SDO) will be used in combination with unwanted celibacy within each of the outlined hypotheses in order to find out if they can predict either hostility towards women, support for anti-promiscuity norms or support for anti-feminist attitudes.

In this section the research question was stated along with the three hypotheses. RWA and SDO were outlined as variables which will be used to test the hypothesis. In the following section, the methods chapter will be introduced.

Methodology

In order to evaluate whether unwanted celibacy is positively associated with misogynistic attitudes, an online survey via qualtrics was conducted with a mixed sample of incel and non-incel individuals. Firstly, the respondents were presented with questions regarding their socio-economic background (11 items of multiple-choice questions),age, gender,sexual orientation, education level,relationship status and socio-economic status. Subsequently, within the survey the connection between involuntary celibacy and outlined aspects related with misogynistic attitudes were studied - hostility towards women and support for anti-promiscuity. Furthermore, personality and political affiliation differences between incels and non-incels were explored through a gender egalitarianism scale and a social dominance orientation scale.For more information, the fully developed questionnaire can be viewed in Appendix A.

Participants

Respondents were recruited through a link to an online survey, which was distributed across social media platforms including Discord, Reddit, LinkedIn and 4Chan It would be prudent to emphasize that a large number of participants were gathered through various subreddits on Reddit, however, the most responsive ones were Bulgarian subreddits, which would explain the large number of Bulgarians answering the survey. From a sample of 269 initial participants, a total of 104 responses successfully completed the survey in its entirety, after excluding those who did not reach the debrief end-page or failed one of the three attention checks.Among the 104 responses who answered the current location question, the majority (80.6%) were from Europe, followed by 11.7% from the United States, 3.9% from Canada and 1.9% identified as "other".When asked about nationality, 10.2% identified as American, 2.0% 2.0% as Canadian, 3.1% as Dutch and the largest group (69.4%) identified as Bulgarian.

In terms of sexual orientation, 1.9% identified as Asexual, 4.9% as homosexual, 18.4% as bisexual and the majority (73.8%) as heterosexual. Regarding gender, 71.8% identified as male, 23.3% as female and 2.9% as non-binary. When it comes to relationship status, 8.7% reported being engaged or married, 11.7% in casual relationships, 33.0% in an exclusive relationship and the largest portion (46.6%) currently not in a relationship.In terms of political affiliation, 4 respondents identified themselves as being on the extreme left spectrum, 29 as moderate left, 37 as centrists, 21 as moderate right and 12 as extreme right. Considering education level, 3 respondents reported having a PHD, 23 had an undergraduate degree, 15 held a master's degree, 47 were highschool graduates, 2 had less than a high school education and 13 had a college degree. Out of the total respondents, 15.5% identified as incels, while the remaining 84% did not identify as such.

Graphs regarding participant's demographics, sexual orientation, political affiliation, education level and incel status can be viewed in Appendix B.

Measures and Procedure

The survey entailed a cross-sectional self-report questionnaire.The study itself was designed in English. After the consent page, participants were asked to answer 13 items of questions regarding socio-demographic information (age, gender, sexual orientation, ethnicity, nationality,relationship status, number of sexual partners, as well as degree of unwanted celibacy, and whether they identify as an incel. Once they answered the first set of questions, participants were presented with scales measuring the predictor variable (Right-wing authoritarianism and Social dominance orientation) and a scale which measured the outcome

variable(Gender egalitarianism, anti-promiscuity and hostility towards women).

1. Incel Status - In order to define and categorize the participants into groups, firstly respondents will be presented with a definition of Incels - "Members of an online sub-culture who define themselves as unable to find a romantic or sexual partner despite desiring one, a state that is also described as inceldom" and subsequently asked whether they identify as an incel on a scale from 1 (not at all) to 5 (I totally identify) (Granau, et.al., 2022).

2. Unwanted celibacy - Participants will have to specify their degree of unwanted celibacy on 13 items developed using a scale from 1 (does not describe me at all) to 5 (this describes me exceptionally well). Respondents will be answering questions about various items of interest related with two interlaced themes: (1) desire for romantic or sexual partner, extinguished by the inability to find one due to perceived unattractiveness, rejection, failure or lack of willing partners (e.g. "I have tried having sexual/romantic relationships, but I have been rejected too many times"); (2) hardships caused due to comparing oneself with others, who are successful in having romantic and or sexual partners (e.g. "Other men/women are enjoying the pleasure of having romantic/sexual experiences, but not me") (Granau, et.al., 2022).

3. Hostility towards women - Distrust and adverse feelings towards women will be evaluated through the 10-item hostility towards women scale (e.g."When it really comes down to it, a lot of women are deceitful.") (Lonsway & Fitzgerald, 1995).

4. Support for anti-promiscuity - To investigate respondents' views on gender roles and how they perceive how men or women should act in regards to promiscuity, surveyors will be tasked with answering 12 statements using a scale ranging from 1 (strongly disagree) to 7 (strongly agree) (e.g."promiscuous women are not worthy of much respect"; "men who sleep with lots of women deserve to be judged negatively") (Pratto et.al., 2013)

5. Gender egalitarianism - In order to study participants' attitudes towards feminist ideologies and their political affiliations, respondents will be asked to answer a 10-item question

on a scale ranging from 1(strongly disagree) to 6 (strongly agree) (e.g. "many women in the workforce are taking jobs away from men who need the jobs more") (Pratto, et.al., 2013)

6. Social dominance orientation - To gauge their views on various demographics as part of the society, respondents will be asked to answer 4 statements using a scale ranging from 1 (strongly disagree) to 6 (strongly agree) (e.g."Superior groups should dominate inferior groups") (Pratto, et.al., 2013).

7. Right wing authoritarianism - In order to investigate whether people who experience unwanted celibacy progressively adapt more right-wing authoritarian political views, respondents will be prompted to answer 6 statements from a scale ranging from 1 (very strongly agree) to 9 (very strongly disagree) (e.g."God's laws about abortion, pornography, and marriage must be strictly followed before it is too late.") (Bizumic & Duckitt, 2018).

8. Big five personality traits - To investigate what is respondents' opinion about themselves and better categorize them, participants will be asked to fill in a 10-item short version of the personality inventory scale, where they will answer 10 statements ranging from 1 (disagree strongly) to 7 (agree strongly) (e.g. "I see myself as: sympathetic, warm") (Soto & John, 2017).

Data Analysis

There were some items in scales, which were reverse-phrased (e.g., "..." in the Unwanted celibacy scale). These items were reverse-coded before the items were averaged to create a composite score on each scale.

Composite indexes were created for each variable by average the responses for each variable, leaving a 5 point involuntary celibacy scale, and 7 points scale for Hostility Towards Women, Anti-promiscuity attitudes, SDO, RWA, gender egalitarianism and personality scale. After the data was cleaned, the following indexes were obtained for further analysis, including regression analysis: unwanted celibacy, anti-promiscuity towards women, anti-promiscuity

towards men, gender egalitarianism, hostility towards women, social dominance orientation and right-wing authoritarianism. After this, the data was expired to R in order to create linear regression models. 3 sets of linear regression models were made, first predicting hostility toward women, then gender egalitarianism and lastly anti promiscuity toward women. The predictor variables for these models were unwanted celibacy (InvolCel), right wing authoritarianism (RWA) and social dominance orientation (SDO) The big 5 personality traits were also included in the model. For the model predicting anti-promiscuity toward women, anti-promiscuity towards men was included in order to exclude people who were against promiscuity in general and only regard those who held the belief against women.

Results

Table 1: Predicting hostility toward women from unwanted celibacy, right wing authoritarianism

and social dominance orientation

term	Model 1	Model 2	Model 3	Model 4
(Intercept)	2.400***	1.359***	1.190***	1.704*
(Intercept)	(0.227)	(0.385)	(0.322)	(0.659)
InvolCel	0.445***	0.367**	0.335***	0.299**
InvolCel	(0.115)	(0.113)	(0.094)	(0.098)
RWA		0.379**	0.040	0.092
RWA		(0.116)	(0.109)	(0.111)
SDO			0.426***	0.431***
SDO			(0.063)	(0.064)
Agreeableness				-0.155*
Agreeableness				(0.063)
Extraversion				-0.098
Extraversion				(0.061)
Conscientiousness				0.028
Conscientiousness				(0.058)
Neuroticism				0.029
Neuroticism				(0.058)
Openness				0.023
Openness				(0.073)
Num.Obs.	104	104	104	104
R2	0.128	0.212	0.458	0.503
R2 Adj.	0.119	0.196	0.442	0.462
AIC	316.5	308.0	271.0	271.9

*Note: Asterisks (*) denote the significance level of the coefficients: *: $p < 0.05$ (5% level of significance) **: $p < 0.01$*

*(1% level of significance) ***: $p < 0.001$ (0.1% level of significance)*

Higher asterisks indicate greater statistical significance.

Based on the provided regression models presented in Table 1, here is an analysis of

the relationships between the variables in predicting hostility towards women:

The first model predicts hostility toward women from unwanted celibacy (InvolCel) only.

The coefficient for unwanted celibacy is 0.445, and it is statistically significant at the $p < 0.001$

level. This suggests that there is a positive relationship between involuntary celibacy and hostility toward women, meaning that the higher level of unwanted celibacy participants experienced, the more hostile attitudes they endorsed towards women. The R-squared value is 0.128, indicating that unwanted celibacy explains approximately 12.8% of the variance in hostility toward women.

In Model 2, right-wing authoritarianism (RWA) was added as a predictor alongside unwanted celibacy. The coefficient for unwanted celibacy decreases slightly to 0.367, so it has less of an influence on hostility toward women, but it remains statistically significant at the $p < 0.01$ level. The coefficient for RWA is 0.379, and it is also statistically significant at the $p < 0.01$ level. This suggests that both involuntary celibacy and right-wing authoritarianism are positively associated with hostility toward women, which means that individuals experiencing unwanted celibacy and exhibiting right-wing authoritarian tendencies are more likely to hold hostile attitudes toward women. The R-squared value increases to 0.212, indicating that the inclusion of RWA improves the model's explanatory power.

Model 3 includes social dominance orientation (SDO) as an additional predictor alongside unwanted celibacy and RWA. The coefficient for unwanted celibacy decreases further to 0.335, but it remains statistically significant at the $p < 0.001$ level. The coefficient for RWA decreases to 0.092, and it is no longer statistically significant. The coefficient for SDO is 0.426, and it is statistically significant at the $p < 0.001$ level. This suggests that involuntary celibacy and social dominance orientation are both positively associated with hostility toward women. The R-squared value increases to 0.458, indicating that the inclusion of SDO improves the model's explanatory power.

Model 4 includes the big five personality traits (Agreeableness, Extraversion, Conscientiousness, Neuroticism, and Openness) as additional predictors alongside unwanted celibacy, RWA, and SDO. In this model, only the coefficients for unwanted celibacy (0.299) and SDO (0.431) remain statistically significant at the $p < 0.01$ level. This suggests that involuntary

celibacy and social dominance orientation have the most significant relationships with hostility toward women in this model. The R-squared value increases to 0.503, indicating that the inclusion of the big five personality traits further improves the model's explanatory power.

Table 2: Predicting gender egalitarianism from unwanted celibacy, right wing authoritarianism and social dominance orientation;

term	Model 1	Model 2	Model 3	Model 4
(Intercept)	5.480***	7.264***	7.417***	5.891***
(Intercept)	(0.243)	(0.375)	(0.323)	(0.634)
InvolCel	-0.370**	-0.235*	-0.207*	-0.157+
InvolCel	(0.123)	(0.110)	(0.094)	(0.094)
RWA		-0.650***	-0.343**	-0.437***
RWA		(0.113)	(0.109)	(0.107)
SDO			-0.385***	-0.356***
SDO			(0.064)	(0.062)
Agreeableness				0.218***
Agreeableness				(0.061)
Extraversion				0.084
Extraversion				(0.058)
Conscientiousness				-0.024
Conscientiousness				(0.056)
Neuroticism				0.064
Neuroticism				(0.056)
Openness				0.061
Openness				(0.071)
Num.Obs.	104	104	104	104
R2	0.081	0.309	0.495	0.576
R2 Adj.	0.072	0.295	0.480	0.540
AIC	330.2	302.6	272.0	263.9

Note: Asterisks (*) denote the significance level of the coefficients: *: p < 0.05 (5% level of significance) **: p < 0.01 (1% level of significance) ***: p < 0.001 (0.1% level of significance). Higher asterisks indicate greater statistical significance.

Based on the provided regression models presented in Table #2, here is an analysis of the relationships between the variables in predicting gender egalitarianism:

The first model predicts gender egalitarianism from unwanted celibacy (InvolCel) only. The coefficient for unwanted celibacy is -0.370, and it is statistically significant at the $p < 0.01$ level. This suggests that there is a negative relationship between involuntary celibacy and gender egalitarianism, meaning that individuals experiencing higher levels of unwanted celibacy tend to exhibit lower endorsement of feminist values and principles. The R-squared value is 0.081, indicating that unwanted celibacy explains approximately 8.1% of the variance in gender egalitarianism.

In Model 2, right-wing authoritarianism (RWA) is added as a predictor alongside unwanted celibacy. The coefficient for unwanted celibacy decreases slightly to -0.235, but it remains statistically significant at the $p < 0.05$ level. The coefficient for RWA is -0.343, and it is statistically significant at the $p < 0.01$ level. This suggests that both involuntary celibacy and right-wing authoritarianism are negatively associated with gender egalitarianism. The R-squared value increases to 0.309, indicating that the inclusion of RWA improves the model's explanatory power.

Model 3 includes social dominance orientation (SDO) as an additional predictor alongside unwanted celibacy and RWA. The coefficient for unwanted celibacy decreases further to -0.207, but it remains statistically significant at the $p < 0.05$ level. The coefficient for RWA decreases to -0.437, and it remains statistically significant at the $p < 0.01$ level. The coefficient for SDO is -0.356, and it is statistically significant at the $p < 0.001$ level. This suggests that involuntary celibacy, right-wing authoritarianism, and social dominance orientation are all negatively associated with gender egalitarianism. The R-squared value increases to 0.495, indicating that the inclusion of SDO improves the model's explanatory power.

Model 4 includes the big five personality traits (Agreeableness, Extraversion, Conscientiousness, Neuroticism, and Openness) as additional predictors alongside unwanted

celibacy, RWA, and SDO. In this model, only the coefficients for unwanted celibacy (-0.157) and SDO (-0.356) remain statistically significant at the p < 0.05 level. This suggests that involuntary celibacy and social dominance orientation have the most significant relationships with gender egalitarianism in this model. The R-squared value increases to 0.576, indicating that the inclusion of the big five personality traits further improves the model's explanatory power.

Table 3: Predicting anti-promiscuity towards women from unwanted celibacy, right wing authoritarianism and social dominance orientation.

term	Model 1	Model 2	Model 3	Model 4
(Intercept)	1.622***	-0.480	-0.613	-1.809*
(Intercept)	(0.292)	(0.453)	(0.424)	(0.894)
InvolCel	0.727***	0.569***	0.544***	0.607***
InvolCel	(0.148)	(0.133)	(0.124)	(0.133)
RWA		0.766***	0.499***	0.474**
RWA		(0.136)	(0.143)	(0.150)
SDO			0.336***	0.342***
SDO			(0.083)	(0.087)
Agreeableness				0.010
Agreeableness				(0.086)
Extraversion				0.080
Extraversion				(0.082)
Conscientiousness				0.037
Conscientiousness				(0.078)
Neuroticism				0.073
Neuroticism				(0.078)
Openness				0.081
Openness				(0.100)
Num.Obs.	104	104	104	104
R2	0.192	0.384	0.470	0.485
R2 Adj.	0.184	0.372	0.454	0.442
AIC	368.4	342.1	328.5	335.5

*Note: Asterisks (*) denote the significance level of the coefficients: *: p < 0.05 (5% level of significance) **: p < 0.01 (1% level of significance) ***: p < 0.001 (0.1% level of significance). Higher asterisks indicate greater statistical significance."+" next to a coefficient indicates a positive sign, but the coefficient does not reach statistical significance*

at conventional levels (e.g., p < 0.05). It suggests a trend towards significance or a potential relationship that requires further investigation but does not provide strong evidence of a statistically significant effect.

Based on the provided regression models presented in Table #3, here is an analysis of the relationships between the variables in predicting anti-promiscuity attitudes:

The intercept term (-0.480) is not statistically significant. The coefficient for unwanted celibacy (InvolCel) is positive and statistically significant at the p < 0.001 level (0.727). This suggests that involuntary celibacy is positively associated with anti-promiscuity towards women. The R-squared value is 0.192, indicating that the predictors explain approximately 19.2% of the variance in anti-promiscuity towards women.

In Model 2, right-wing authoritarianism (RWA) is added as a predictor alongside unwanted celibacy. The intercept term remains non-significant. Both unwanted celibacy (0.569) and RWA (0.499) have positive and statistically significant coefficients at the p < 0.001 level. This indicates that both involuntary celibacy and right-wing authoritarianism are positively associated with anti-promiscuity towards women. The R-squared value increases to 0.384, indicating that the inclusion of RWA improves the model's explanatory power.

Model 3 includes social dominance orientation (SDO) as an additional predictor alongside unwanted celibacy and RWA. The intercept term remains non-significant. The coefficient for unwanted celibacy decreases slightly (0.544), but it remains statistically significant. Both RWA (0.261) and SDO (0.147) have positive and statistically significant coefficients at the p < 0.01 level. This suggests that involuntary celibacy, right-wing authoritarianism, and social dominance orientation are all positively associated with anti-promiscuity towards women. The R-squared value increases to 0.470, indicating that the inclusion of SDO improves the model's explanatory power.

In Model 4, the big five personality traits (Agreeableness, Extraversion, Conscientiousness, Neuroticism, and Openness) are added as additional predictors alongside

unwanted celibacy, RWA, and SDO. The intercept term becomes statistically significant and negative (-1.809) at the $p < 0.01$ level. In this model, unwanted celibacy (0.607) and SDO (0.342) remain statistically significant, while the coefficients for RWA and the big five personality traits are not provided. The R-squared value increases slightly to 0.485, indicating that the inclusion of the big five personality traits significantly improves the model's explanatory power.

Discussion

The current study aimed to investigate the roles of unwanted celibacy, right-wing authoritarianism and social dominance orientation in shaping misogynistic attitudes such as hostility towards women, support for anti-promiscuity and support for anti-feminist attitudes. The findings from this study provide compelling evidence supporting the three hypotheses examined. The significant associations observed between unwanted celibacy, social dominance orientation (SDO), right-wing authoritarianism (RWA), and various dimensions of misogyny shed light on the psychological and social drivers underlying these attitudes.

Consistent with expectations, the study found a significant positive association between unwanted celibacy and misogynistic attitudes, including hostility towards women, endorsement of anti-promiscuity beliefs, and support for anti-feminist ideologies, within a mixed sample of Incel and non-Incel individuals. This novel finding carries important theoretical implications, highlighting that the inability to fulfill the fundamental human motive of acquiring a romantic or sexual partner contributes to the development and reinforcement of various forms of sexist and misogynistic views and is consistent with previous research on the topic (Granau, et.al.,2022). The recognition of unwanted celibacy as a potential precursor to misogyny highlights the importance of addressing the emotional and psychological well-being of individuals who experience unwanted celibacy. In their work Hoffmann and colleagues (2020) emphasize the need for concerted efforts to counteract the increasingly aggressive ideology and extreme

worldview of unwanted celibates. They propose several strategies, including improving access to online mental health resources for young men, strengthening programs aimed at countering violent extremism, implementing effective monitoring and regulation of online extremist communities, and addressing terrorism perpetrated by lone actors (Hoffman et al., 2020). Building upon these recommendations, DeCook and Kelly (2022) assert the importance of challenging and rewriting societal narratives about masculinity in order to combat misogyny. They also highlight the significance of comprehensive sexual education that prioritizes consent and introduces feminist theory to young boys and men, aiming to challenge and transcend traditional ideals of masculinity (DeCook & Kelly, 2022). These multifaceted approaches hold promise for addressing the root causes of misogyny and fostering a more inclusive and egalitarian society.

The study findings shed light on the significant associations between social dominance orientation (SDO), right-wing authoritarianism (RWA), and misogyny, emphasizing the role of broader societal factors in shaping discriminatory attitudes. SDO, characterized by a desire for social hierarchy and dominance, aligns with the perpetuation of gender inequality and the subordination of women. Our results align with previous research (Renström, 2023) and reinforce the significant relationship between SDO and misogyny. This connection is noteworthy because SDO has also been associated with a positive attitude towards the abuse of women (Ucar & Özdemir, 2021), with hostile sexism acting as a mediating factor (Kiral Ucar & Ozdemir, 2021). These findings highlight the relevance of SDO in perpetuating sexist beliefs and practices that uphold gender inequality and hierarchical structures, providing insights into the complex factors influencing misogyny in our society.

Moreover, the study found that right-wing authoritarianism (RWA) exhibited a positive association with misogyny. These findings support existing literature suggesting that individuals with high levels of RWA, often influenced by their religious and political backgrounds, tend to hold specific beliefs and ideas related to misogyny (Hargreaves & Mooney, 2023). It is

noteworthy that religious fundamentalists, in particular, demonstrate elevated RWA tendencies (Altemeyer, 2007). Individuals with higher levels of RWA tend to adhere to traditional values and endorse hierarchical family structures, often placing men in superior positions. These ideological beliefs provide a fertile ground for the cultivation of misogynistic attitudes, as they validate and justify gender-based discrimination. Interestingly, our findings indicate that while RWA plays a role in predicting misogyny, it may not have as significant an impact as other variables, such as unwanted celibacy. However, it is plausible that individuals experiencing unwanted celibacy may find a connection with the traditional family structure that reinforces their worldview, often characterized by the belief that women should be subordinate to men.

From a societal perspective, the implications of the association between unwanted celibacy and misogyny are significant. Misogyny perpetuates gender inequality, reinforces harmful stereotypes, and contributes to the marginalization and oppression of women. It creates a hostile and unsafe environment, where women are subjected to discrimination, harassment, and violence. The presence of misogynistic attitudes hinders the progress towards a more egalitarian and inclusive society, where all individuals are treated with respect and have equal opportunities. In their book, "Mediating Misogyny" (2018) Vickery and Everbach underline that the problem with misogyny, be it expressed online or offline lies with white supremacist patriarchal rule. Suggestions to remedy this issue according to the lies within the four stakeholders, who are both invested in and profit from shaping cultural ideologies, namely digital platforms, the law, universities and journalism (Vickery & Everbach, 2018). Naturally, while no single organization or institution can single-handedly eradicate misogyny, each possesses the capacity to influence practices and contribute to profound cultural change at structural levels:

For example, digital platforms exert significant influence over online experiences, shaping interactions, visibility, and behavior through their code, policies, algorithms, and business models. As demonstrated in this research, these platforms have a critical role in addressing misogyny by creating inclusive and safe digital spaces (Vickery & Everbach, 2018).

Moreover, the news media also holds immense power in shaping cultural attitudes and social discourse. Journalists must exercise caution in reporting about online harassment, as their language and framing can either exacerbate the issue or contribute to finding solutions. Ethical reporting that raises awareness without victim-blaming is crucial in combating misogyny.

While laws are typically reactive rather than proactive, they still play a vital role in addressing online harassment. Legal systems are gradually adapting to the challenges posed by the internet, but progress is slow and inconsistent. Striving for comprehensive laws that hold perpetrators accountable and shape societal attitudes is necessary to combat misogyny effectively (Vickery & Everbach, 2018).

Furthermore, the academic community and universities have a responsibility to create a safe environment for researching misogyny. It is essential to support and protect researchers who delve into this topic while fostering inclusive scholarship. While the responsibility for combating misogyny online does not rest solely on these stakeholders, they all have integral roles in shaping and responding to online cultures and supporting research on harassment. Collaboration and concerted efforts from digital platforms, the media, legal systems, academia, and other stakeholders are necessary to tackle misogyny effectively and create a more inclusive and respectful online environment.

Strengths

This study possesses several strengths. Firstly, the study's comprehensive theoretical framework, incorporating variables such as unwanted celibacy, feminist ideologies, right-wing authoritarianism, social dominance orientation, and personality traits, provides a strong foundation for understanding the complex dynamics of attitudes towards women. The use of regression analysis allows for a quantitative examination of these relationships, providing

statistical evidence to support the findings. Additionally, the inclusion of multiple models with progressive predictors enhances the understanding of how various factors contribute to shaping these attitudes. The standardized survey instrument employed in data collection ensures consistency and reliability in measuring the constructs of interest. These methodological choices strengthen the validity of the study's findings. Overall, the study's robust theoretical framework, quantitative analysis approach, and methodological rigor underscore the significance of its findings and contribute to the existing body of knowledge in this field.

Limitations and Avenues for Future Research

Despite the strengths, the present study on the relationship between unwanted celibacy and attitudes towards women faces several limitations. Firstly, the generalizability of the findings may be limited due to potential sample biases and the specific characteristics of the participants, due to the fact that a large percentage of the participants is Bulgarian. Additionally, the reliance on self-report measures introduces the possibility of social desirability bias and participants' misinterpretation of the questions, potentially affecting the accuracy of the data.

Furthermore, the correlational nature of the study design precludes making causal inferences. While associations between variables were identified, caution must be exercised in drawing causal conclusions. This is because the correlational nature of a survey study design precludes making causal inferences as it does not allow for the manipulation of variables or control of external factors. Correlation only indicates the relationship between variables, but it does not establish causation or determine the direction of the relationship between the explored variables and misogyny.

The inclusion of additional predictors is commendable; however, it is possible that unmeasured variables or alternative explanations could influence the examined attitudes.

Moreover, the cross-sectional design of the study restricts the ability to establish temporal sequencing and ascertain the directionality of the relationships. Next, attitudes towards women and promiscuity are subjective constructs influenced by diverse sociocultural factors, which may not be fully captured by the variables and measures employed in the study.

Last, but not least, the sample size of the study is relatively low. Many of the initial 269 respondents either failed the attention check or simply did not finish the survey. Moreover, only a small portion of the 104 remaining respondents actually indicated that they identify as an incel. This emphasizes the already known issues with researching individuals, who identify as incels, namely that they do not want to be studied. This was an issue which was a common occurrence during the data collection process.

These limitations emphasize the need for further research to address these concerns and provide a more comprehensive understanding of the complex dynamics between unwanted celibacy and misogyny.

Conclusion

The objective of this study was to investigate the relationship between unwanted celibacy and misogynistic attitudes, which include hostility towards women, support for anti-promiscuity beliefs, and endorsement of anti-feminist ideologies. The study also examined the roles of right-wing authoritarianism (RWA), social dominance orientation (SDO) and the Big Five personality traits in shaping these attitudes. The findings of the study demonstrated significant links between unwanted celibacy and misogynistic attitudes, indicating a higher likelihood of individuals experiencing unwanted celibacy to display hostility towards women and endorse anti-promiscuity and anti-feminist beliefs. These results provide empirical support for the three hypotheses proposed in this research.

On the basis of the results, this paper highly recommends implementing comprehensive strategies to address the implications of the study's findings.To counteract troubling trends, it is imperative to address the root causes of these ideologies and promote more egalitarian values. Education and awareness campaigns can play a crucial role in challenging discriminatory beliefs and fostering critical thinking. Comprehensive sex education programs can help dispel myths, debunk stereotypes, and promote healthy and respectful relationships. Encouraging open dialogue about gender roles and expectations, while promoting inclusivity and diversity, can contribute to dismantling harmful gender norms and fostering a more equitable society.

Efforts should extend beyond individual interventions and encompass broader systemic changes. Policymakers, community leaders, and influencers have a role to play in advocating for legislative reforms, implementing policies that promote gender equality, and actively working towards dismantling systemic barriers. Creating safe spaces for marginalized voices, supporting survivors of gender-based violence, and amplifying diverse perspectives are crucial steps towards fostering a more inclusive and egalitarian society.

By addressing the underlying factors that contribute to misogyny, we can strive towards creating a society where all individuals are treated with dignity and respect, regardless of their gender. This requires a collective effort to challenge deep-rooted beliefs, foster empathy, and nurture a culture of gender equality. Only through these multifaceted approaches can we pave the way for a more just and inclusive future.

Future research in this area should aim to further explore the complex relationship between unwanted celibacy, misogynistic attitudes, and the associated psychological and social factors. Longitudinal studies can provide valuable insights into the long-term effects of unwanted celibacy on individuals' attitudes and behaviors. Additionally, investigating the role of other potential variables, such as self-esteem, body image, and social support, can contribute to a more comprehensive understanding of the mechanisms underlying the development and reinforcement of misogynistic beliefs.

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Appendix A: The developed online questionnaire

PROJECT TITLE: Differences in lived experiences and political attitudes

INVESTIGATORS: Kiril Raynov, Bachelor student at the University of Groningen, Campus Fryslân; Dr. Pelin Gül, Assistant Professor of Social Psychology, University of Groningen, Campus Fryslân, Netherlands.

PURPOSE

This study investigates whether individual differences in personality and differences in romantic experiences predict various political attitudes. We kindly ask you to participate in this study, as we are trying to understand these mechanisms in a diverse group of individuals. We aim to deepen our understanding of the impact that underlying cognitions and emotions can have on different behaviours and formations of political attitudes among people. This survey is only open to participants who are 18+ years old.

PROCEDURES

If you agree to participate, you will be asked general demographics questions (age, sex, sexual orientation, nationality, etc.). Following this, you will be asked with a number of questions about where you stand regarding romantic relationships, your attitudes towards sex, past sexual behaviour, sexual fantasies, your attitudes and perceptions of women and men, and relationships between men and women. You will also be asked questions about your personality. It is important to keep in mind that there are no right or wrong answers. We are interested in the attitudes and experiences of individuals. Therefore, our research relies on your own honest opinion.

At the end of the survey, you will be provided with more details about this study. Your participation will last approximately 10 minutes.

PARTICIPANT RIGHTS

Your participation in this study is completely voluntary. You are free to decline to participate, refuse to answer any individual questions, or withdraw from the study at any time without the need to give any reason.

RISKS AND BENEFITS

There are no known or anticipated risks associated with this study. Although this study will not benefit you personally, we hope that our results will add to the knowledge about how people's lived experiences can influence their attitudes and decisions.

CONFIDENTIALITY

Your responses are completely anonymous, and cannot be traced back to you because no personally identifying information such as names is asked in this survey. The information you provide will not be disclosed to third parties, and they will be aggregated with the responses of other participants and examined for hypothesized patterns. Your anonymous responses will be used for scientific research into various aspects of personality and social psychology and will be published.

QUESTIONS

For further information about this study, you may contact Kiril Raynov, k.b.raynov@student.rug.nl, or Dr. Pelin Gül, p.gul@rug.nl, the supervisor of this research study.
 If you would like to talk with someone other than the researchers to discuss problems or concerns, to discuss situations in the event that a member of the research team is not available, or to discuss your rights as a research participant, If you have any questions about the rights of research participants, please contact the The Ethics Committee Campus Fryslân at the University of Groningen, Netherlands, ethics-cf@rug.nl.

CONSENT AND AUTHORIZATION PROVISIONS

In order to continue with this survey, you have to agree with the aforementioned information and consent to participate in the study.

Clicking "I agree and consent to participating in this study" indicates that you have been informed about the nature and method of this research in a manner which is clear to you, you have been given the time to read the page, and that you voluntarily agree to participate in this study.

○ Yes, I agree and consent to participating in this study. (1)

○ No, I do not agree or consent to participating in this study. (2)

End of Block: Consent Block

Start of Block: Inceldom Identification

IDIncel Incels (a term derived from "involuntary celibates") are members of an online subculture and define themselves as unable to find a romantic or sexual partner despite desiring one, a state they describe as Inceldom. They believe that their situation derives from a combination of genetic factors, social factors, and evolutionary changes in women's traits. Do you identify with this definition? Please answer yes or no.

○ Yes (6)

○ No (7)

End of Block: Inceldom Identification

Start of Block: Degree of unwanted celibacy

UnwantdCelibacyLevel Please indicate to what extent the following statements describe you.

	1 - Does not describe me (1)	2 - Describes me slightly well (2)	3 - Describes me moderately well (3)	4 - Describes me very well (4)	5 - Describes me extremely well (5)
I have tried having sexual/romantic relationships, but I have been rejected too many times (1)	○	○	○	○	○
I have tried having sexual/romantic relationships, but I have failed too many times. (2)	○	○	○	○	○

I want to find a romantic/sexual partner, but I am too physically unattractive. (3)	○	○	○	○	○
I want to date, but nobody wants to date me. (4)	○	○	○	○	○
I want to have sex, but there is no one to do it with. (5)	○	○	○	○	○
I want to love someone, but there is no one out there for me. (6)	○	○	○	○	○
No one from the opposite sex ever shows an interest in me. (7)	○	○	○	○	○
I have never been lucky enough to enjoy the pleasure of kissing a person of the	○	○	○	○	○

opposite sex. (8)					
I have never been lucky enough to enjoy the pleasure of dating a person of the opposite sex. (9)	○	○	○	○	○
I have never been lucky enough to enjoy the pleasure of having sex with a person of my desired sex. (10)	○	○	○	○	○
I have never been lucky enough to enjoy the pleasure of being romantically or sexually desired. (11)	○	○	○	○	○
Other men/women are enjoying the pleasure of having romantic or sexual experiences,	○	○	○	○	○

but not me. (12)					
If you are reading this, please select 4 "describes me very well" to show that you are paying attention. (13)	○	○	○	○	○

End of Block: Degree of unwanted celibacy

Start of Block: Sociosexual Orientational Inventory

NumSexPartnerYear With how many partners have you had sex within the past 12 months?

○ 0 (1)

○ 1 (2)

○ 2 (3)

○ 3 (4)

○ 4 (5)

○ 5-6 **(6)**

○ 7-9 **(7)**

○ 10-19 **(8)**

○ 20 or more **(9)**

NumSexPartnerCasual With how many different partners have you had sexual intercourse on one and only one occasion?

○ 0 **(1)**

○ 1 **(2)**

○ 2 **(3)**

○ 3 **(4)**

○ 4 **(5)**

○ 5-6 **(6)**

○ 7-9 **(7)**

○ 10-19 **(8)**

○ **20 or more (9)**

NumcasualSexPartner With how many different partners have you had sexual intercourse without having an interest in a long-term committed relationship with this person?

○ **0 (1)**

○ **1 (2)**

○ **2 (3)**

○ **3 (4)**

○ **4 (5)**

○ **5-6 (6)**

○ **7-9 (7)**

○ **10-19 (8)**

○ **20 or more (9)**

LoveandSex Sex without love is OK.

    ○ **1 (strongly disagree) (1)**

    ○ **2 (2)**

    ○ **3 (3)**

    ○ **4 (4)**

    ○ **5 (5)**

    ○ **6 (6)**

    ○ **7 (7)**

    ○ **8 (8)**

    ○ **9 (strongly agree) (9)**

CasualSexComfort I can imagine myself being comfortable and enjoying "casual" sex with different partners.

    ○ **1 (strongly disagree) (1)**

○ 2 (2)

○ 3 (3)

○ 4 (4)

○ 5 (5)

○ 6 (6)

○ 7 (7)

○ 8 (8)

○ 9 (strongly agree) (9)

SeriousRelationsSex I do not want to have sex with a person until I am sure that we will have a

long-term, serious relationship.

○ 1 (strongly disagree) (1)

○ 2 (2)

○ 3 (3)

○ 4 (4)

○ **5 (5)**

○ **6 (6)**

○ **7 (7)**

○ **8 (8)**

○ **9 (strongly agree) (9)**

CasualSexFantasies How often do you have fantasies about having sex with someone with whom you do not have a committed romantic relationship?

○ **1 - never (1)**

○ **2- very seldom (2)**

○ **3 - about once every two or three months (3)**

○ **4 - about once a month (4)**

○ **5 - about once every two weeks (5)**

○ **6 - about once a week (6)**

○ **7 - several times per week (7)**

◯ **8 - nearly every day (8)**

◯ **9 - at least once a day (9)**

CasualArousal How often do you experience sexual arousal when you are in contact with someone with whom you do not have a committed romantic relationship?

◯ **1 - never (1)**

◯ **2- very seldom (2)**

◯ **3 - about once every two or three months (3)**

◯ **4 - about once a month (4)**

◯ **5 - about once every two weeks (5)**

◯ **6 - about once a week (6)**

◯ **7 - several times per week (7)**

◯ **8 - nearly every day (8)**

◯ **9 - at least once a day (9)**

SpontaneosSexFantasy In everyday life, how often do you have spontaneous fantasies about having sex with someone you have just met?

○ **1 - never (1)**

○ **2- very seldom (2)**

○ **3 - about once every two or three months (3)**

○ **4 - about once a month (4)**

○ **5 - about once every two weeks (5)**

○ **6 - about once a week (6)**

○ **7 - several times per week (7)**

○ **8 - nearly every day (8)**

○ **9 - at least once a day (9)**

End of Block: Sociosexual Orientational Inventory

Start of Block: Support for anti-promiscuity

APBoth Please indicate the extent to which you agree or disagree with the following statements.

	1 (strongly disagree) (1)	2 (disagree) (2)	3 (slightly disagree) (3)	4 (neither agree nor disagree) (4)	5 (slightly agree) (5)	6 (agree) (6)	7 (strongly agree) (7)
It is wrong for women to engage in promiscuous sex. (1)	○	○	○	○	○	○	○
It is fine for a woman to have sex with a man she has just met, if they both want to. (2)	○	○	○	○	○	○	○
A woman should never have sex with a man she is not in love with. (3)	○	○	○	○	○	○	○

There is nothing wrong with a woman being promiscuous. (4)	○	○	○	○	○	○	○
Promiscuous women are not worthy of much respect. (5)	○	○	○	○	○	○	○
Women who sleep with lots of men deserve to be judged negatively. (6)	○	○	○	○	○	○	○
It is wrong for men to engage in promiscuous sex. (7)	○	○	○	○	○	○	○
It is fine for a man to have sex with a woman he has just met, if they both want to. (8)	○	○	○	○	○	○	○

A man should never have sex with a woman he is not in love with. (9)	○	○	○	○	○	○	○
There is nothing wrong with a man being promiscuous. (10)	○	○	○	○	○	○	○
Promiscuous men are not worthy of much respect. (11)	○	○	○	○	○	○	○
Men who sleep with lots of women deserve to be judged negatively. (12)	○	○	○	○	○	○	○
If you are reading this, please select 6 "agree" to show that you are paying	○	○	○	○	○	○	○

attention. (13)

APWomen Using the point scale ranging from 1 (not at all bad/wrong) to 7 (very bad/wrong), please rate the extent to which you think it is bad/wrong if a woman behaves this way? How bad/wrong is it for a woman if she does the following...

	1 (not at all bad/wrong) (1)	2 (2)	3 (3)	4 (somewhat bad/wrong) (4)	5 (5)	6 (6)	7 (very wrong/bad) (7)
...she wears provocative clothes? (1)	○	○	○	○	○	○	○
...she is known as someone who has had many different sexual partners? (2)	○	○	○	○	○	○	○

...she has sexual relations before marriage? (3)	○	○	○	○	○	○	○
...she is known as someone who changes boyfriends often? (4)	○	○	○	○	○	○	○
...she is known as someone whom it is easy to sleep with? (5)	○	○	○	○	○	○	○
..she sleeps with a man without starting a serious relationship with him? (6)	○	○	○	○	○	○	○

APMen Using the point scale ranging from 1 (not at all bad/wrong) to 7 (very bad/wrong), please rate the extent to which you think it is bad/wrong if a man behaves this way? How bad/wrong is it for a man if he does the following...

	1 (not at all bad/wrong) (1)	2 (2)	3 (3)	4 (somewhat bad/wrong) (4)	5 (5)	6 (6)	7 (very wrong/bad) (7)
...he wears provocative clothes? (1)	○	○	○	○	○	○	○
...he is known as someone who has had many different sexual partners? (2)	○	○	○	○	○	○	○
...he has sexual relations before marriage? (3)	○	○	○	○	○	○	○

...he is known as someone who changes girlfriends often? (4)	○	○	○	○	○	○	○
...he is known as someone whom it is easy to sleep with? (5)	○	○	○	○	○	○	○
..he sleeps with a woman without starting a serious relationship with her? (6)	○	○	○	○	○	○	○

End of Block: Support for anti-promiscuity

Start of Block: Liberal Feminist Attitude and Ideology Scale

LibFemIdeologyLevel Please indicate the extent to which you agree or disagree with the following statements.

	1(strongly disagree) (1)	2 (disagree) (2)	3 (slightly disagree) (3)	4 (neither agree nor disagree) (4)	5 (slightly agree) (5)	6 (agree) (6)	7 (strongly agree) (7)
Women should be considered as seriously as men as candidates for the Presidency of the United States. (1)	○	○	○	○	○	○	○
Although women can make good leaders, men make better leaders. (2)	○	○	○	○	○	○	○
A woman should have the same job opportunities as a man. (3)	○	○	○	○	○	○	○

Men should respect women more than they currently do. (4)

○ ○ ○ ○ ○ ○ ○

Many women in the work force are taking jobs away from men who need the jobs more. (5)

○ ○ ○ ○ ○ ○ ○

Doctors need to take women's health concerns more seriously. (6)

○ ○ ○ ○ ○ ○ ○

Women have been treated unfairly on the basis of their gender throughout most of human history. (7)

○ ○ ○ ○ ○ ○ ○

Women are already given equal opportuniti es with men in all important sectors of their lives. (8)	○	○	○	○	○	○	○
Women in the U.S. are treated as second class citizens. (9)	○	○	○	○	○	○	○
Women can best overcome discriminati on by doing the best that they can at their jobs, not by wasting time with political activity. (10)	○	○	○	○	○	○	○

End of Block: Liberal Feminist Attitude and Ideology Scale

Start of Block: Hostility towards women

HTW Please indicate the extent to which you agree or disagree with the following statements.

	1 (strongly disagree) (1)	2 (disagree) (2)	3 (slightly disagree) (3)	4 (neither agree nor disagree) (4)	5 (slightly agree) (5)	6 (agree) (6)	7 (strongly agree) (7)
I feel that many times women flirt with men just to tease them or hurt them. (1)	○	○	○	○	○	○	○
I believe that most women tell the truth. (2)	○	○	○	○	○	○	○
I usually find myself agreeing with (other) women. (3)	○	○	○	○	○	○	○

I think that most women would lie just to go ahead.. (4)	○	○	○	○	○	○	○
Generally, it is safer not to trust women. (5)	○	○	○	○	○	○	○
When it really comes down to it, a lot of women are deceitful. (6)	○	○	○	○	○	○	○
I am easily angered by (other) women. (7)	○	○	○	○	○	○	○
I am sure I get a raw deal from the (other) women in my life. (8)	○	○	○	○	○	○	○

	1 - Disagree strongly (1)	2 - Disagree moderately (2)	3 - Disagree a little (3)	4 - Neither agree nor	5 - Agree a little (5)	6 - Agree moderately (6)	7 - Agree strongly (7)
Sometimes (other) women bother me by just being around. (9)	○	○	○	○	○	○	○
(Other) Women are responsible for most of my troubles. (10)	○	○	○	○	○	○	○

End of Block: Hostility towards women

Start of Block: Ten-Item Personality Inverntory

Personality I see myself as:

	1 - Disagree strongly (1)	2 - Disagree moderately (2)	3 - Disagree a little (3)	4 - Neither agree nor	5 - Agree a little (5)	6 - Agree moderately (6)	7 - Agree strongly (7)

				disagree (4)			
Extroverted, enthusiastic. (1)	○	○	○	○	○	○	○
Critical, quarrelsome. (2)	○	○	○	○	○	○	○
Dependable, self-disciplined. (3)	○	○	○	○	○	○	○
Anxious, easily upset. (4)	○	○	○	○	○	○	○
Open to new experiences, complex. (5)	○	○	○	○	○	○	○
Reserved, quiet. (6)	○	○	○	○	○	○	○
Sympathetic, warm. (7)	○	○	○	○	○	○	○

	1	2	3	4	5	6	7
Disorganized, careless. (8)	○	○	○	○	○	○	○
Calm, emotionally stable. (9)	○	○	○	○	○	○	○
Conventional, uncreative. (10)	○	○	○	○	○	○	○

End of Block: Ten-Item Personality Inverntory

Start of Block: Social dominance orientation

SDOlevel Please indicate how much you agree or disagree with each idea below on a scale ranging from 1 (strongly disagree) to 7 (strongly agree). "Groups" here refer to different groups in society (e.g., gender, national, ethnic, racial, cultural). You can work quickly; your first feeling is generally best.

	1 (strongly disagree) (1)	2 (disagree) (2)	3 (slightly disagree) (3)	4 (neither agree nor	5 (slightly agree) (5)	6 (agree) (6)	7 (strongly agree) (7)

						disagree) (4)	
In setting priorities, we must consider all groups. (1)	○	○	○	○	○	○	○
We should not push for group equality. (2)	○	○	○	○	○	○	○
Group equality should be our ideal. (3)	○	○	○	○	○	○	○
Superior groups should dominate inferior groups. (4)	○	○	○	○	○	○	○

End of Block: Social dominance orientation

Start of Block: Right Wing Authoritarianism scale

RWAScale Please indicate the extent to which you agree or disagree with the following statements.

	1 (strongly disagree) (1)	2 (disagree) (2)	3 (slightly disagree) (3)	4 (neither agree nor disagree) (4)	5 (slightly agree) (5)	6 (agree) (6)	7 (strongly agree) (10)
It's great that many young people today are prepared to defy authority. (1)	○	○	○	○	○	○	○
What our country needs most is discipline, with everyone following our leaders in unity. (2)	○	○	○	○	○	○	○

God's laws about abortion, pornography, and marriage must be strictly followed before it is too late. (3)	○	○	○	○	○	○	○
There is nothing wrong with premarital sexual intercourse. (4)	○	○	○	○	○	○	○
Our society does NOT need tougher government and stricter laws. (5)	○	○	○	○	○	○	○
The facts on crime and the recent public disorders show we have to crack down harder on troublemakers, if we are going preserve	○	○	○	○	○	○	○

law and order. (6)							
If you are reading this, please select 3 "slightly disagree" to show that you are paying attention. (7)	○	○	○	○	○	○	○

End of Block: Right Wing Authoritarianism scale

Start of Block: Debriefing Block

Debrief Thank you very much for participating in our study!   Precisely, our study investigates how one's degree of involuntary celibacy is related to their personality, mental health, various motives, attitudes and perceptions of women and male-female relationships.

We thank you for your help and the decision to participate in our study. If you know of any friends or acquaintances that are eligible to participate in this study, we request that you do not discuss it with them until after they have had the opportunity to participate. Prior knowledge of the questions asked during the study can invalidate the results. We greatly appreciate your cooperation.   For further information about this study, you may contact Kiril Raynov, k.b.raynov@student.rug.nl, the person in charge of this research study.

 If you have any questions about the rights of research participants, please contact the Ethical

Review Committee at Campus Fryslân, ethics-cf@rug.nl, University of Groningen

 Thank you again for your participation.

End of Block: Debriefing Block

Start of Block: Socio-demographic information

Age How old are you?

_____

Gender What is your gender?

○ **Male (1)**

○ **Female (2)**

○ **Non-binary / third gender (3)**

○ **Prefer not to say (4)**

Sexual orientation What is your sexual orientation?

○ **Heterosexual (1)**

○ **Homosexual (2)**

○ **Bisexual (3)**

○ **Transsexual (4)**

○ **Asexual (5)**

○ **Other/Prefer not to say (6)**

Location Where do you live?

○ **Europe (1)**

○ **China (2)**

◯ **India (3)**

◯ **United States (4)**

◯ **Canada (5)**

◯ **United Kingdom (6)**

◯ **Other (7)**

Nationality What is your nationality?

_____

Ethnicity What is your ethnicity?

_____

Religious status What is your religion?

_____

Relationship status What describes your current relationship best?

○ **I am currently not in a relationship nor dating (1)**

○ **Casual relationship (2)**

○ **Exclusive relationship (3)**

○ **Engaged/Married (4)**

Education level What is the highest level of education you have completed?

○ **Less than high school (1)**

○ **High school graduate (2)**

○ **College graduate (3)**

○ **Undergraduate degree (4)**

○ **Master's degree (5)**

○ **PhD or higher-level degree (6)**

Socioeconomic status What is your socio-economic status?

○ **1 (very poor) (1)**

○ **2 (2)**

○ **3 (3)**

○ **4 (middle class) (4)**

○ **5 (5)**

○ **6 (6)**

○ **7 (very wealthy) (7)**

Politic. affiliation In which political party do you place your political ideology?

    ○ **Extreme left (1)**

    ○ **Moderate left (2)**

    ○ **Centrist (3)**

    ○ **Moderate right (4)**

    ○ **Extreme right (5)**

End of Block: Socio-demographic information

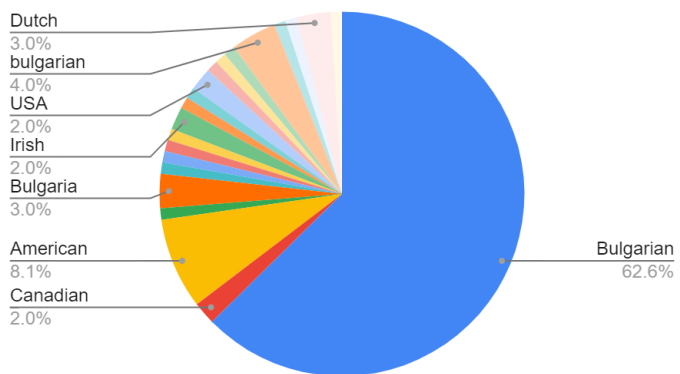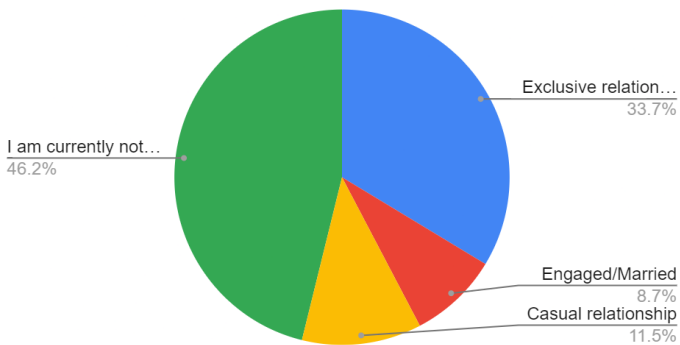**Appendix B: Participant demographics**
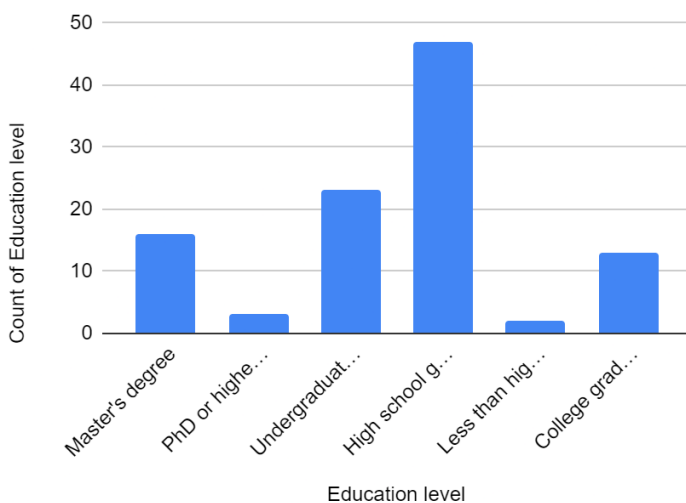
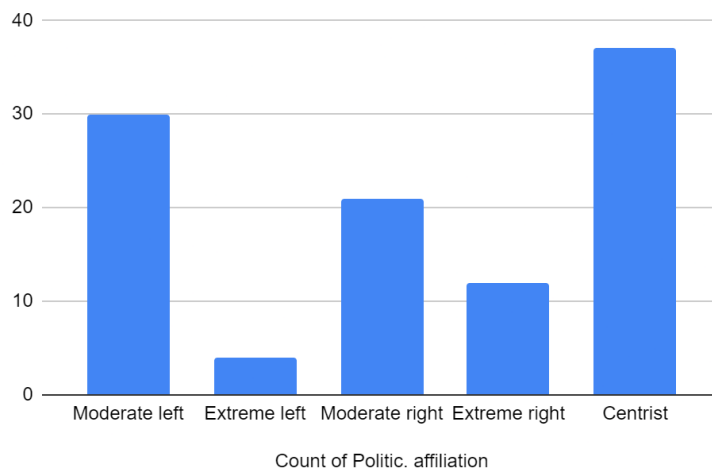Count of Sexual orientation
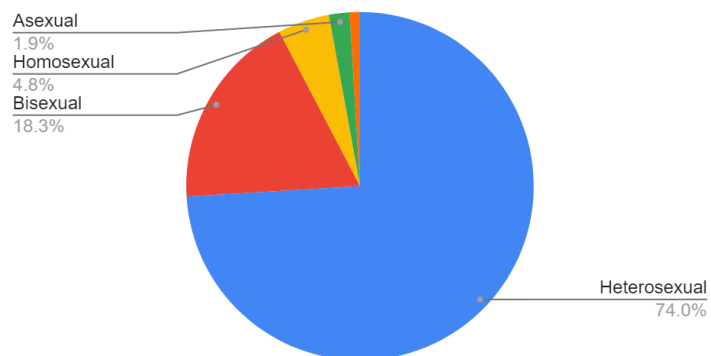
Count of Location

Count of Nationality

Dutch
3.0%
bulgarian
4.0%
USA
2.0%
Irish
2.0%
Bulgaria
3.0%
American
8.1%
Canadian
2.0%

Bulgarian
62.6%
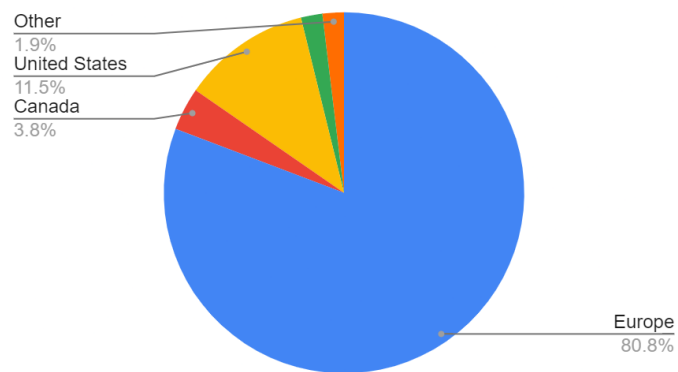
Count of Relationship status

I am currently not…
46.2%

Exclusive relation…
33.7%

Engaged/Married
8.7%
Casual relationship
11.5%

Count of Education level

Count of Politic. affiliation

Count of Politic. affiliation

Count of IDIncel

Yes
15.4%

No
84.6%
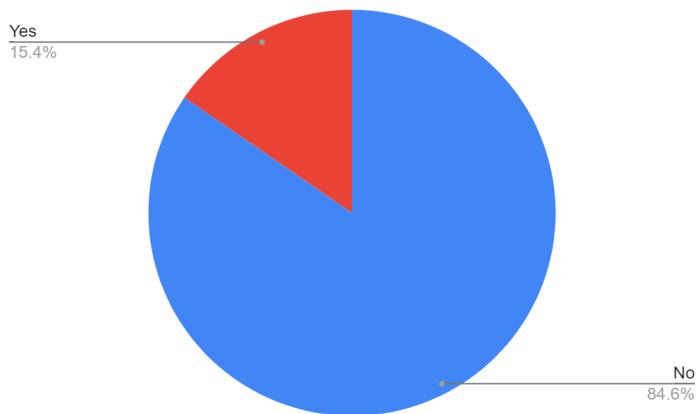
Count of Religious status

Dutch
1.0%

Atheism
2.0%

Methodist (Chri…
1.0%

Muslim
1.0%

Agnostic
8.1%

Eastern Orthod…
1.0%

Christianity
10.1%

None
12.1%

Atheist
20.2%

Orthodox Christ…
3.0%

Wotanism
1.0%

Christian
13.1%

Orthodox Christ…
6.1%

Antitheism
1.0%