Societal Perceptions of the Freezing Response in Male and Female Rape Victims

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Abstract

This study investigated the impact of a rape victim's gender and behaviour on perceptions of victim blame, perpetrator blame, and seriousness of the crime. It compared perceptions of fictional rape scenarios involving a male or female victim who either froze or refused during the attack. Hypotheses proposed more victim blame for male victims, freezing victims, and male freezing victims, more perpetrator blame for male perpetrators and perpetrators with refusing victims, and higher levels of perceived seriousness of the crime for male-to-female rape and rape of refusing victims. Exploratory analyses investigated the moderating role of rape myth acceptance on the relationship between victim behaviour and rape perceptions. A 2x2 between-subjects design tested the hypotheses using a sample consisting of 273 participants. Participants read a mock police report describing an alleged rape situation with a female or male victim who either refused or froze, while perpetrator gender was adjusted heteronormatively. After that, participants received a questionnaire assessing their perceptions of the rape. General linear models indicated that freezing and male victims were blamed more than refusing and female victims. Perpetrators were blamed more when the victim refused, but male and female perpetrators were blamed equally. Seriousness of the crime was higher for male perpetrators and higher for those with a refusing victim. While male rape myth acceptance did not moderate the relationship between male victim behaviour and the dependent variables, female rape myth acceptance moderated the relationship between female victim behaviour and the dependent variables. This study highlights the influence of societal expectations on perceptions of rape and its victims and further points out deficiencies in current laws that mandate how rape victims should behave.

Keywords: Sexual assault; Rape; Freezing; Tonic immobility; Victim Blame; Perpetrator blame; Seriousness of the crime; Rape myth acceptance; Female perpetrators; Male victims

Societal Perceptions of the Freezing Response in Male and Female Rape Victims

Sexual assault is considered one of the most harmful and prevalent crimes and can affect individuals of all genders, ages, and cultural backgrounds. One commonly used framework defines sexual assault as sexual contact or behaviour that occurs without the victim's consent (RAINN, 2022b). Consent means a mutual voluntary agreement between participants to engage in sexual activity, which is considered lacking if the victim said "no" or was generally unable to give consent (e.g., when underage, intoxicated, or asleep). Furthermore, consent is also not given when the victim was unable to give it freely (e.g., when threatened or intimidated), when their behaviour indicated that consent was not given or withdrawn from or when unequal power dynamics were present between the parties (RAINN, 2019).

For the population as a whole, sexual assault represents a considerable life-course risk as it can affect everyone. In the Netherlands, the lifetime prevalence of being sexually assaulted is 56% for women and 21% for men (Haas et al., 2012; Keith, 2014; Khan et al., 2020). Sexual assault can result in detrimental consequences, not only on a personal but on a societal level, too. Victims are the largest group of people suffering from post-traumatic stress disorder (PTSD) and are more likely to experience acute and chronic disorders, and mental health issues. Strikingly, victims of sexual assault are more likely to attempt or commit suicide (Campbell & Wasco, 2016; Krug et al., 2002; Ullman & Brecklin, 2002). Moreover, vicarious trauma resulting from sexual assault can have devastating consequences for the victim's social environment, too (Campbell & Wasco, 2016; Khadr et al., 2018; Krug et al., 2002; RAINN, 2022a). Sexual assault is commonly regarded as a typically male-perpetrated crime. According to research, the majority of all documented sex offenders are male, regardless of the victim's gender. Female offenders account for 1% of sexual assaults in the Netherlands and for 5% globally (Cortoni et al., 2010; Wijkman et al., 2010).

Female-Perpetrated Sexual Assault

It is crucial to note that even though female-perpetrated sexual assault is statistically less prevalent, it still exists and can be as traumatic for its victims as male-perpetrated sexual assault (Fisher & Pina, 2013; Gambardella et al., 2020; Munroe & Shumway, 2020). Some may argue that by focusing on male perpetrators and female victims, the majority of rapists and victims are targeted. However, when doing so, the understanding of sexual violence would be limited to the majority only, ignoring evidence that every victim of rape may experience detrimental consequences, regardless of their own or the rapist's gender (Turchik et al., 2016). Thus, it is crucial to note that victims of female-perpetrated rape can suffer from

detrimental long-term consequences and can have troubles going on with their lives after being victimised, just as this can be the case for victims of male-perpetrated rape (Catton & Dorahy, 2020; Clements et al., 2013; Fisher & Pina, 2013).

However, there still remains a lack of acknowledgement and awareness of female offenders in society, as academic literature almost exclusively focuses on male-perpetrated sexual assault, making female-perpetrated rape a highly understudied issue (Fisher & Pina, 2013; Gambardella et al., 2020). Also, female-perpetrated sexual assault is scarcely represented in the media relative to male-perpetrated sexual assault. When depicted, it is often done inaccurately because it tends to be glorified, portrayed as something acceptable, or used as a comedic element, appearing in movies, series, and even childhood cartoons (Hulme, 2022; McKay, 2016; Oliver, 2007). Moreover, female offenders tend to be less reported than male offenders, with victims often feeling unable to disclose due to fear of disbelief, ostracism, and stigma (Catton & Dorahy, 2020; Clements et al., 2013). Especially male victims of female-perpetrated sexual assault are strongly stigmatised in society, as people generally struggle to acknowledge the possibility that men can be raped by women.

Male Victims of Female-Perpetrated Sexual Assault

Clements et al. (2013) call the societal view of sexual assault the "culture of denial", as it places females almost exclusively in the role of victims and males in the role of aggressors; the fact that the opposite can also be true is mainly ignored (Clements et al., 2013; McPhail, 2015; Moore & Miller-Perrin, 2021). Hence, the dominant paradigm through which rape is addressed and understood in society is a male-to-female construct (Stemple et al., 2017). A study has found that among men who experienced rape during their lifetime, 68.8% reported a female offender, suggesting that female rapists are fairly common among male rape victims (Stemple, 2015; Stemple & Meyer, 2017; Stemple et al., 2017). However, for many, it remains difficult to acknowledge that a man can be sexually victimised at the hands of a woman, which is reinforced by three factors.

Firstly, gender stereotypes tend to present women as nurturing, friendly, and submissive and men as dominant and physically overpowering. Consequently, the idea that women can be sexually aggressive and violent and that men can be helpless and vulnerable to female-perpetrated rape is more difficult to accept, as it contrasts stereotypical beliefs (Stemple et al., 2017). Secondly, for many, it remains difficult to acknowledge female-to-male rape due to the reversed directionality of penetration. Usually, people tend to think of rape as an offender penetrating a victim (Stemple et al., 2017). However, the most common form of sexual assault involving a male victim and a female offender is forced penetration.

This involves the victim being forced to penetrate the offender and mostly occurs in the context of abusive intimate relationships (Stemple et al., 2017; Weare & Hulley, 2019). According to the National Intimate Partner and Sexual Violence Survey (NISVS), among male victims who were made to penetrate the offender, 79.2% reported a female offender (Stemple et al., 2017). Therefore, female-to-male rape often includes forced penetration, with victims most frequently reporting that they experienced a severe negative emotional impact from it, taking the form of PTSD, impaired sexual functioning, or sexual aversion (Fisher & Pina, 2013; Weare & Hulley, 2017). Thirdly, there are prevalent negative attitudes, beliefs, and biases towards male rape victims in society that stem from sex-role stereotypes and rape myths (Fisher & Pina, 2013).

Rape Myths

Rape myths are pervasive societal assumptions about rape that can crucially influence the view of what "typical" rape is, how victims and perpetrators behave, why rape happens, who to blame for it, and what its consequences are (van der Bruggen & Grubb, 2014). They often contribute to a vindication of the perpetrator's actions by placing blame onto the victim (Fisher & Pina, 2013). Rape myths were originally identified and defined in relation to female victims of male rapists. Accordingly, female victims are declared provocative and inviting towards the male perpetrator, for example, by dressing revealingly, showing flirtatious behaviour, or their sexual reputation (Fisher & Pina, 2013). Thus, a female is declared as having asked for being sexually perpetrated due to her appearance or behaviour. Rape myths concerning male victims of female offenders mostly centre around masculinity considerations. People perceive men as the initiators of sexual contact and consequently assume that men cannot be raped by females in the first place (Catton & Dorahy, 2020). Moreover, men are perceived as too physically overpowering to be raped. Thus, they are seen as physically capable of preventing a rape, especially when the perpetrator is female (Sleath & Bull, 2009; van der Bruggen & Grubb, 2014). Another myth concerns the belief that forced sexual contact, asserted by a woman, is still enjoyable for men and does not lead to suffering. This is because female perpetrators are viewed as committing an abuse less severely relative to male perpetrators (Catton & Dorahy, 2020; Stemple et al., 2017; Turchik & Edwards, 2012; van der Bruggen & Grubb, 2014). Therefore, it is suggested that people perceive female-perpetrated rape as less serious compared to male-perpetrated rape and consequently blame a female rapist less than a male rapist (Clements et al., 2013; Oliver, 2007). The influence of rape myths extends beyond shaping societal assumptions about what rape is and who it involves; it is also closely linked to victim-blaming tendencies.

Victim-Blaming

A common consequence of believing in rape myths, i.e., exhibiting high levels of rape myth acceptance (RMA), is the tendency to engage in victim-blaming. Studies have consistently found positive correlations between RMA and victim-blaming (Dawtry et al., 2019). Victim-blaming is defined as people's tendency to declare victims of a criminal act as at least partially responsible for their victimisation (Hayes et al., 2013). One proposed theoretical foundation for victim-blaming is the Just World Theory which states that people believe that they live in a just world where they will receive what they earn and, accordingly, earn what they receive (Strömwall et al., 2013). Generally, people do not like the idea that a traumatic, uncontrollable event (such as a rape) can happen to them. Therefore, they try to find a cause for the event or someone to blame for it in order to make it somewhat controllable and avoidable and to protect themselves from it. As a result, people believe that a rape victim must have done something to deserve, or at least cause what happened to them. Accordingly, people will blame a victim to foster their belief that a rape cannot happen to themselves but to those that "deserve" it, as they must be somewhat responsible for it (Strömwall et al., 2013; Wenzel et al., 2017). Hence, victim-blaming can function as a self-protective mechanism (Walster, 1966).

Strikingly, male rape victims are more blamed when the perpetrator is female compared to when the perpetrator is male (Catton & Dorahy, 2020). Moreover, victim blame of male victims further increases when they display stereotypically unmasculine behaviours during a sexual assault (Davies et al., 2009; Reitz-Krueger et al., 2017; van der Bruggen & Grubb, 2014). Here, victim behaviours such as freezing (i.e., not fighting back but being tonically immobile during the assault) or failing to resist are considered stereotypically unmasculine behaviours and are suggested to promote victim blame (Davies et al., 2009; Reitz-Krueger et al., 2017). Male victims in particular are expected to defend themselves against a rapist in order to maintain their status of manhood. Nevertheless, it should not be ignored that female victims are also expected to refuse a rapist. Thus, it is noteworthy that there are prevalent cultural scripts for how all rape victims should behave during an offence, regardless of their gender. Reality, however, deviates from these expectations, as victims commonly respond differently to sexual assaults.

The Freezing Response

The two basic human natural reactions to fear and trauma are known as the fight or flight responses. However, modern research has introduced a third response that challenges the conventional binary construct: the fear-freeze response (Schiewe, 2019). The fear-freeze

response, also called tonic immobility in medical terms, refers to a state in which a fearful individual becomes physically unable to resist or move (Schiewe, 2019). Thereby, the person can experience physical immobility, muscular rigidity, an inability to speak up verbally, as well as a feeling of cold numbness, while remaining mentally conscious altogether (Schiewe, 2019).

According to a study by Fusé et al. (2007), 44% of rape victims reported that they froze during the assault, with other studies indicating an even higher prevalence (Coxell & King, 2010; Möller et al., 2017; Schiewe, 2019). In a clinical sense, freezing can have catastrophic consequences for victims, as the experience of not being able to refuse a rape can be tremendously traumatic by itself. Studies have found that the freezing response can significantly enhance the quality of the victim's memory, resulting in recurrent vivid memories of the rape (Laso, 2023; Möller et al., 2017; Rubin & Bell, 2023; Schiewe, 2019). Moreover, the freezing response is often triggered in those who perceive their assailant as a threat to their personal safety or believe that they cannot escape a dangerous situation. Therefore, freezing can be considered a biological marker that clearly exemplifies a victim's non-consent (Schiewe, 2019). In sum, as almost half of all rape victims freeze during a rape, the freezing response is a common response to rape and can result in serious consequences for the victim.

Nevertheless, it is common that freezing victims are blamed more for their victimisation than refusing victims (Galliano et al., 1993; Hopper, 2018; Kollof, 2022; Laso, 2023; Möller et al., 2017; Rubin & Bell, 2023; Schmidt et al., 2008). In society, people generally expect that a rape victim should actively resist the attacker in the form of fight or flight. This expectation perpetuates the idea that freezing victims responded inappropriately to the threat of rape, which leads to a cycle of victim blame (Schiewe, 2019). Whether there is a difference in the level of victim blame when the sexual assault specifically includes a male freezing victim and a female offender compared to a female freezing victim and a male offender is still open for investigation. Exploring this possible interaction is important because, on the one hand, it might reveal gender-based stereotypes manifesting in rape myths, i.e., men possibly being blamed more when they show a stereotypically unmasculine behaviour, especially when perpetrated by a woman. On the other hand, it can shed light on freezing generally being a misinterpreted, misunderstood, and unacknowledged victim behaviour because non-refusing victims are possibly blamed more in general. The latter point is particularly important to address, as the Dutch and German legal definitions of rape and

sexual assault exclude freezing victims, crucially hindering them from experiencing justice for what happened to them.

Legal Discrepancy

Even though freezing is a common victim response to rape, Dutch and German legal definitions of rape and victim behaviours do not match current scientific implications about the experience of freezing victims (Fusé et al., 2007; Laso, 2023). According to the Dutch law against sexual assault, a perpetrator's sentence is reduced when the victim did not or was unable to physically resist, which presents rape of non-resisting victims as less deserving of punishment and less serious overall (Kollof, 2022; Overheid.nl, 2023). Moreover, the German law states that only those who reject the victim's expressed will are subject to prosecution (Strafgesetzbuch, 2016). Thereof, a sexual assault is only committed when the victim explicitly showed that they do not consent to the act (e.g., by saying "no", crying, or walking away) or when the perpetrator actively misused a victim's inability to give consent (e.g., when drugged, drunk, or mentally/physically disabled). Here, freezing is not considered an inability to give consent (Strafgesetzbuch, 2016). Both Dutch and German laws do not account for how common the freezing response is and exclude the possibility that freezing can imply non-consent. Thereof, both laws align with rape myths, which dictate how a rape victim should act, putting more blame on freezing victims and presenting their offence as less serious. As a consequence, it is crucial to investigate whether people view rape crimes involving freezing victims as less serious and, furthermore, whether this depends on their level of rape myth acceptance.

Study Purpose and Hypotheses

The common view of rape involves a female victim and a male perpetrator, with the victim explicitly refusing the attacker. Reality contrasts this view because men can also be raped by women, and victims commonly freeze. However, these aspects are not entirely acknowledged by society due to several reasons.

Research suggests that male rape victims are blamed more in general, which is further enhanced when they display stereotypically unmasculine behaviours during a rape. The latter is possibly due to stereotypes presenting men as physically overpowering and capable of fighting back. Therefore, this study explores whether male victims are blamed more than female victims. Additionally, to investigate whether rape myths about how a victim should behave apply differently depending on the victim's gender, this study uniquely explores whether a male freezing victim, perpetrated by a female is blamed more compared to a female freezing victim, perpetrated by a male. Moreover, it is suggested that people deem a

rape committed by a female to be less damaging due to the stereotypical belief that females commit crimes less severely. This implies that female-perpetrated rape is generally viewed as less serious, with its offenders being blamed less compared to male-perpetrated rape. Thus, this study seeks to investigate how the perpetrator's gender influences perceptions of seriousness of the crime and perpetrator blame. Moreover, legal definitions of sexual assault in the Netherlands and Germany align with rape myths as they present the experience of freezing victims as less worthy of investigation and less serious than the experience of refusing victims. Therefore, this study explores whether people align with this legal view of freezing victims, i.e., whether they blame a freezing victim more, their perpetrator less, and whether they perceive the rape of freezing victims as less serious.

This research will describe four rape cases (male-to-female and female-to-male rape) in which the victim either explicitly refuses or freezes. Hypotheses are:

H1: *Victim blame will be higher for male victims compared to female victims and higher for victims who freeze compared to victims who physically and verbally refuse.*

H2: *Victim blame will be higher for a freezing male victim compared to a freezing female victim.*

H3: *Perpetrator blame will be higher for male perpetrators compared to female perpetrators and higher for perpetrators with a refusing victim compared to those with a freezing victim.*

H4: *Seriousness of the crime will be higher for male-perpetrated rape compared to female-perpetrated rape and higher for rapes involving a refusing victim compared to a freezing victim.*

Methods

Design

This study used a 2 (victim gender: male vs female) x2 (victim behaviour: freezing vs refusal) between-participant design with the dependent variables victim blame, perpetrator blame, and seriousness of the crime. The victim gender variable compared a male-to-female rape with a female-to-male rape. In the refusal condition, the victim explicitly defends themselves against the attacker by saying "no", shouting at them to stop, and pushing them off, whereas in the non-refusal condition, the victim freezes, i.e., shows no physical or verbal resistance.

Participants

Based on a G*Power analysis (v3.1.9.6; Faul et al., 2009), a minimum of 125 participants were required in order to observe a partial eta squared of .06, which is the

smallest effect size of interest, with an alpha of .05 and a power level of .80 (see Appendix A). The analysis was powered for the interaction effect between the independent variables. Participants were recruited using a convenience and snowball sampling method, partly via the SONA recruitment system of the University of Twente and mainly via the researcher's personal network.

Overall, 376 participants started the survey. From those, 103 participants (28%) were excluded: 73 did not finish the survey (22%), 12 did not give informed consent (3%), two were underage (1%), and seven wished to delete their data after taking part in the study (2%). The remaining sample consisted of 273 participants in total, including 161 females (59%), 108 males (40%), two identifying as "other" (1%) and two who preferred not to indicate their gender (1%). The mean age of the participants was 23.6 years (*SD* = 5.83). The minimum age was 18, and the maximum age was 63. Highest level of education was spread as follows: 137 participants achieved a high school degree (50%), 69 earned a bachelor's (25%) and 29 a master's degree (11%), 24 earned a college diploma (9%), and 14 participants earned a doctoral degree, state exam, apprenticeship, or decided not to share their educational background (5%). Among participants, the following nationalities were present: 66% German (n = 181), 7% Dutch (n = 19), 5% Italian (n = 14), 2% Spanish (n = 6), 1% British (n = 4), 4% preferred not to indicate their nationality (n = 12), and 14% had other nationalities (n = 37), such as US American, Finnish, German-Turkish, Polish, Romanian, Latvian, Taiwanese, Brazilian, and more. The participants were relatively evenly distributed into the four experimental groups: 76 in female/freeze (27.8%), 64 in female/refusal (23.4%), 64 in male/freeze (23.4%), and 69 in male/refusal (25.3%).

Materials

All materials were provided in English because most of the participants were anticipated to be students studying in this language.

Police Report

Participants were presented with a police report of an alleged rape, which described the following situation: The victim had dinner with a close friend (the perpetrator). After eating, they started to watch TV while sitting next to each other on the sofa. Then, the perpetrator tried to touch and kiss the victim, undressed them, and eventually started to have sex with them. Victim gender, perpetrator gender, and the victim's behavioural response to the rape are described differently depending on the research condition (see Appendix B). The victim was either described as male or female, while the perpetrator's gender was adjusted heteronormatively. In this study, only heterosexual rape was investigated, and gender will be

described as a binary construct. Furthermore, the victim was either described as physically and verbally refusing the offender (by saying "no", shouting at them to stop, and pushing them off) or as not physically or verbally refusing the offender (by freezing). The police report intentionally included limited detail and was kept brief in order to give more room for the participants' beliefs to guide their responses. In addition, by avoiding detailed graphic or triggering language in the report, potential participant distress was sought to be minimised.

Measures

The questionnaire consisted of four scales which measured the dependent variables victim blame, perpetrator blame, and seriousness of the crime as well as the moderator variable rape myth acceptance. The questionnaire consisted of 45 items in total (see Appendix C).

Victim Blame. Victim blame was measured using seven items which were developed based on the *Items Assessing General Victim Blame* by Eigenberg and Policastro (2015). Example items were "The victim deserved what happened to them because of their behaviour prior to the offence" and "The victim could have stopped the incident if they wished". Items on this scale were rated on a 5-point Likert scale (1=strongly disagree; 5=strongly agree), with higher scores indicating higher levels of victim blame. The victim blame scale was highly reliable ($\alpha = .87$).

Perpetrator Blame. Perpetrator blame was measured using eight items which were developed based on the *The Revised Gudjonsson Blame Attribution Inventory* (Gudjonsson & Singh, 1989). This inventory is based on attribution theory and was initially designed to assess offenders' self-blame attributions. It incorporates two types of attribution, namely internal-external and self-control/freedom to act (Gudjonsson & Singh, 1989). For this study, seven items were taken from this scale and altered in order to measure how much participants consider the perpetrator at fault. Here, example items are "The perpetrator is responsible for the act" and "The perpetrator was in full control of their actions during the act". All items were rated on a 5-point Likert scale (1=strongly disagree; 5=strongly agree). After considering reversed scores, higher scores on this scale indicated higher levels of perpetrator blame. The perpetrator blame scale was also highly reliable ($\alpha = .81$).

Seriousness of the Crime. According to Stylianou (2003), the perceived seriousness of a situation comprises two dimensions. Firstly, crimes can be judged by their perceived consequences, with crimes resulting in physical and/or psychological suffering being judged as the most serious (Stylianou, 2003). Based on this first dimension, I developed three items: "I think the actions of the perpetrator were violent", "I think the victim was physically

harmed by the perpetrator's actions" and "I think the victim was psychologically disturbed after the assault". Secondly, the perceived seriousness of a crime is also determined by how wrongful the crime is perceived in a moral sense (Stylianou, 2003). Based on this second dimension, I developed three items: "I think the perpetrator acted immorally", "I think the victim was not given a chance to have a say in the situation", and "I think the perpetrator's actions were inherently wrong".

Moreover, two additional items were developed to measure the concept of crime seriousness more fully. The first item[1] aimed to measure if participants perceived the rape differently from other rape situations they know of. However, upon reflection, it was decided that this item will not be considered for analysis as it remained ambiguous what participants meant when they disagreed with this item. More specifically, it was difficult to assess whether people deemed the rape more or less serious when they disagreed with the statement; thus, the direction of disagreement remained unclear. The second item[2] aimed to add an assessment of the participants' judgment of punishment severity.

Overall, the seriousness of the crime scale consisted of eight items, which were all rated on a 5-point Likert scale (1=strongly disagree; 5=strongly agree). Higher scores on this scale indicated higher levels of perceived seriousness of the crime. After excluding the problematic item, this scale was highly reliable ($\alpha = .87$).

Rape Myth Acceptance. The moderator variable of the exploratory part of this study was rape myth acceptance (RMA) and was believed to impact the dependent variables. RMA was assessed using two separate scales, tailored specifically for male and female victims.

For measuring RMA concerning male victims, the *Male Rape Myth Scale* by Melanson (1998) was used, which comprises 22 items. The items were statements such as "The extent of a man's resistance should be a major factor in determining whether he was raped" and "A man can enjoy sex even if it is being forced upon him". All items were measured on a 5-point Likert scale (1=strongly disagree; 5=strongly agree). After considering reversed scores, higher scores reflected greater adherence to male rape myths. The male RMA scale was highly reliable ($\alpha = .89$).

For measuring RMA concerning female victims, the *Updated Illinois Rape Myth Acceptance Scale* was used, which comprises 22 items (McMahon & Farmer, 2011; Payne et al., 1999). The items were statements such as "When girls get raped, it's often because the

[1] "Compared to other rapes, I think the rape was equally serious"
[2] "I think the perpetrator should be sentenced with the maximum penalty for rape"

way they said ‘no’ was unclear” and “If a girl doesn’t physically fight back, you can’t really say it was rape”. All items were measured on a 5-point Likert scale (1=strongly disagree; 5=strongly agree). Here, higher scores reflected greater adherence to female rape myths. Also the female RMA scale was highly reliable ($\alpha = .87$).

Procedure

Before data collection, the Ethics Committee of the Faculty of Behavioural, Management and Social Sciences at the University of Twente provided ethical approval for this study. The approval reference number was 230197.

The study was carried out using the online survey tool *Qualtrics*. Participants received a link which led them to the online questionnaire. They first received an information sheet, informing them about the study, its duration, and its broad content. Also, participants were explicitly informed about the study’s topic of rape and sexual assault. Additionally, they were provided with sexual abuse support helplines in case of distress or when needing further support. These helplines offer help in German, English, and Dutch. At the end of the information sheet, participants were asked to give informed consent. Then, they were asked to indicate demographics such as gender, age, education, and nationality. After that, participants received a short questionnaire measuring the moderator variables, male and female RMA. This questionnaire was provided before participants started with the main part of the study, as more input on the topic of rape (in the form of a police report) was believed to possibly influence participant responses on the RMA scales. Subsequently, participants were randomly allocated into one of the four research conditions and were presented with a police report. In the report, the rape was either described as male-to-female or female-to-male rape, and the victim was either described as refusing or freezing. After reading the police report, participants filled in the questionnaires covering the dependent variables (victim blame, perpetrator blame, and seriousness of the crime). After finishing the questionnaire, participants were debriefed and again directed to resources which provide sexual abuse support in case they needed further help after finishing the survey.

Data Analysis

Data was analysed using R 4.2.3. Moreover, the following packages were used for data analysis in R: broom (v1.0.4, Robinson et al., 2023), car (v3.1, Fox & Weisberg, 2019), corrplot (v0.92, Wei & Simko, 2021), CTT (v2.3.3, Willse, 2018), dplyr (v1.1.1, Wickham et al., 2023b), ggplot2 (v3.4.2, Wickham et al., 2023a), infer (v1.0.4, Couch et al., 2021), janitor (v2.2.0, Firke, 2023), lsr (v0.5.2, Navarro, 2015), modelr (v0.1.11, Wickham, 2023), psych

(v2.3.3, Revelle, 2023), tidyr (v1.3.0, Wickham et al., 2023c), tidyverse (v2.0.0, Wickham et al., 2019), and qualtRics (v3.1.7, Ginn et al., 2022).

First, descriptive statistics were calculated in order to obtain information about demographic variables, result distributions, and correlations between the dependent variables. Then, three general linear models were used to test for main and interaction effects of victim gender and victim behaviour on victim blame, perpetrator blame, and seriousness of the crime. The predictor variables in this model were categorical and included victim gender, victim behaviour, and their interaction term. Lastly, an exploratory analysis in the form of a moderator analysis was performed which investigated whether rape myth acceptance moderated the relationship between the independent and dependent variables. Specifically, perceptions of rape cases involving male freezing vs male refusing victims were compared using the male RMA scale as a moderator. The same was done for perceptions of female freezing vs female refusing victims by using the female RMA scale as a moderator.

Results

Descriptive Statistics

In this study, three dependent variables were investigated: victim blame, perpetrator blame and seriousness of the crime. The moderator variable was rape myth acceptance (RMA). The highest option of choice on all scales was 5 on each item, meaning that the participant strongly agreed with the given statement. The lowest option was 1 meaning that the participant strongly disagreed with the given statement. The mean of victim blame was 1.48 (SD = 0.66), the mean of perpetrator blame was 4.27 (SD = 0.65), and the mean of seriousness of the crime was 4.07 (SD = 0.84). The RMA scale was divided into the subscales male RMA with the mean 1.53 (SD = 0.50) and female RMA with the mean 1.62 (SD = 0.47). Responses on the perpetrator blame and seriousness of the crime scales were negatively skewed, while responses on the victim blame, male RMA and female RMA scales were positively skewed. Therefore, a log transformation was performed for the dependent variables. However, this transformation did not change the significance level of p-values resulting from analyses. When presenting the results of the hypothesis, the results of both non-logged and logged variables will be presented.

Correlations

A Pearson's correlation test was performed to identify correlations between the variables. All correlations were statistically significant at $p < .001$ with $df = 271$. For the correlation coefficients, see Table 1. Victim blame was positively associated with both male and female RMA, meaning that the more participants blamed the victim, the more male and

female RMA they exhibited. Moreover, perpetrator blame was positively associated with seriousness of the crime and negatively associated with victim blame, male RMA, and female RMA. This implied that the more participants blamed the perpetrator, the more serious they perceived the crime, the less they blamed the victim, and the less male and female RMA they exhibited. Furthermore, seriousness of the crime was negatively associated with victim blame, male RMA, and female RMA. Thus, the more serious participants perceived the crime, the less they blamed the victim, and the less they exhibited male and female RMA. Lastly, male RMA was positively associated with female RMA, hence, the more male RMA participants exhibited, the more female RMA they had.

Table 1

Correlation Coefficients for the Correlations Between the Dependent and Moderator Variables

	VB	PB	SoC	Male RMA	Female RMA
VB	-	-.74	-.74	.65	.60
PB	-	-	.80	-.50	-.46
SoC	-	-	-	-.46	-.51
Male RMA	-	-	-	-	.72

Note. All correlations were statistically significant at $p < .001$ with $df = 271$; VB=Victim Blame, PB=Perpetrator Blame, SoC=Seriousness of the Crime; RMA=Rape Myth Acceptance

Effects of Victim Behaviour and Victim Gender on Victim Blame

The first general linear model was performed to test whether victim blame was influenced by victim gender, victim behaviour, and their interaction term. See Table 2 for means and standard deviations of the dependent variables (victim blame, perpetrator blame, and seriousness of the crime) depending on the level of the independent variables (i.e., victim gender: male vs female, victim behaviour: freezing vs refusal, and their interaction term), as well as for raw and transformed scores resulting from an ANOVA before and after a log transformation.

Hypothesis 1

The first hypothesis was that victim blame will be higher for male compared to female victims and higher for freezing compared to refusing victims. Victim blame was higher for male victims ($M = 1.52$, $SD = 0.68$) than for female victims ($M = 1.44$, $SD = 0.64$) and this

difference was significant, p =.047, ηp^2 = .007. Moreover, victim blame was higher for freezing victims (M = 1.65, SD = 0.74) than for refusing victims (M = 1.30, SD = 0.50) and this difference was also significant, p < .001, ηp^2 = .073. These findings support the first hypothesis, as participants blamed male victims and freezing victims significantly more than female victims and refusing victims.

Hypothesis 2

The second hypothesis was that victim blame will be higher for a freezing male victim compared to a freezing female victim. The interaction effect of victim gender and victim behaviour on victim blame was not significant, p = .145. For specific group means and standard deviations of this interaction effect, see Table 2. These findings did not support the idea that people blame male freezing victims more than female freezing victims because no significant difference in victim blame was found between male and female freezing victims.

Effects of Victim Behaviour and Victim Gender on Perpetrator Blame

The second general linear model was performed to test whether perpetrator blame was influenced by victim gender, victim behaviour, and their interaction term. Again, see Table 2 for group means as well as raw and transformed scores.

Hypothesis 3

The third hypothesis was that perpetrator blame will be higher for male perpetrators compared to female perpetrators and higher for perpetrators with a refusing victim compared to those with a freezing victim. Perpetrator blame of the group exposed to male-to-female rape (M = 4.30, SD = 0.64) was similar to perpetrator blame of the group exposed to female-to-male rape (M = 4.23, SD = 0.66) and there was no significant effect of victim gender on perpetrator blame, p =.305. However, perpetrator blame of the group with a freezing victim (M = 4.00, SD = 0.63) was lower compared to perpetrator blame of the group with a refusing victim (M = 4.55, SD = 0.54) and this difference was significant, p < .001, ηp^2 = .181. Moreover, there was no significant interaction between victim gender and victim behaviour on perpetrator blame, p = .935. Based on the result, there was no difference in how much people blamed male compared to female perpetrators, but people did blame perpetrators more when the victim refused rather than froze. So, while there was no support for the first part of the hypothesis, there was support for the second part.

Effects of Victim Behaviour and Victim Gender on Seriousness of the Crime

The third general linear model was performed to test whether seriousness of the crime was influenced by victim gender, victim behaviour, and their interaction term. Again, Table 2 shows group means as well as raw and transformed scores of the variables.

Hypothesis 4

The fourth hypothesis was that seriousness of the crime will be higher for male-perpetrated rape compared to female-perpetrated rape and higher for rape involving a refusing compared to a freezing victim. Seriousness of the crime was higher for male-perpetrated rape (M = 4.20, SD = 0.79) than for female-perpetrated rape (M = 3.92, SD = 0.88) and this difference was significant, $p < .008$, $\eta p^2 = .041$. Moreover, rapes involving a freezing victim received lower levels of seriousness of the crime (M = 3.77, SD = 0.87) than rapes involving a refusing victim (M = 4.37, SD = 0.69) and this difference was also significant, $p < .001$, $\eta p^2 = .139$. However, there was no significant interaction between victim gender and victim behaviour on seriousness of the crime, $p = .655$. In conclusion, the fourth hypothesis was supported as participants viewed male-perpetrated rape as more serious than female-perpetrated rape, and rape involving a refusing victim as more serious than rape involving a freezing victim.

Table 2

Group Means per Experimental Condition for the Dependent Variables and Raw and Transformed Scores Resulting from an ANOVA

Independent Variable	**Dependent Variables**					
Victim Gender	VB		PB		SoC	
	M	*SD*	*M*	*SD*	*M*	*SD*
Male	1.52	0.68	4.23	0.66	3.92	0.88
Female	1.44	0.64	4.30	0.64	4.20	0.79
Raw Scores	F = 4.00, df = 1 (269), p = .047		F = 1.06, df = 1 (269), p = .305		F = 7.23, df = 1 (269), p = .008	
Transformed Scores	F = 5.31, df = 1 (269), p = .022		F = 0.86, df = 1 (269), p = .353		F = 6.02, df = 1 (269), p = .015	
Victim Behaviour	VB		PB		SoC	
	M	*SD*	*M*	*SD*	*M*	*SD*
Freezing	1.65	0.74	4.00	0.63	3.77	0.87
Refusal	1.30	0.50	4.55	0.54	4.37	0.69

Raw Scores	$F = 18.58$, $df = 1$ (269), $p < .001$	$F = 29.83$, $df = 1$ (269), $p < .001$	$F = 25.34$, $df = 1$ (269), $p < .001$
Transformed Scores	$F = 22.33$, $df = 1$ (269), $p < .001$	$F = 25.56$, $df = 1$ (269), $p < .001$	$F = 20.23$, $df = 1$ (269), $p < .001$

Interaction Term	VB		PB		SoC	
	M	*SD*	*M*	*SD*	*M*	*SD*
Male / Refusal	1.41	0.58	4.49	0.56	4.20	0.79
Male / Freezing	1.65	0.77	3.94	0.63	3.62	0.87
Female / Refusal	1.19	0.39	4.60	0.51	4.56	0.52
Female / Freezing	1.65	0.73	4.05	0.64	3.90	0.85

Raw Scores	$F = 2.14$, $df = 1$ (269), $p = .145$	$F = 0.01$, $df = 1$ (269), $p = .935$	$F = 0.20$, $df = 1$ (269), $p = .655$
Transformed Scores	$F = 2.95$, $df = 1$ (269), $p = .087$	$F = 0.02$, $df = 1$ (269), $p = .883$	$F = 0.15$, $df = 1$ (269), $p = .699$

Note. VB=Victim Blame, PB=Perpetrator Blame, SoC=Seriousness of the Crime

Moderation of Male and Female Rape Myth Acceptance

Two moderation analyses tested the effect of male and female victim behaviour (freezing vs refusal) on victim blame, perpetrator blame, and seriousness of the crime, as moderated by male or female RMA. In the following, the main effects of male and female RMA on the dependent variables as well as their moderating effects are reported.

Male RMA

Male RMA significantly predicted victim blame ($b = 0.87$, $SE = 0.11$, $t(129) = 7.90$, $p < .001$), perpetrator blame ($b = -0.62$, $SE = 0.12$, $t(129) = -5.07$, $p < .001$), and seriousness of the crime ($b = -0.86$, $SE = 0.17$, $t(129) = -5.07$, $p < .001$). These findings indicated that higher levels of male RMA were associated with higher levels of victim blame, and lower levels of perpetrator blame and perceived seriousness of the crime. Nevertheless, there was no evidence of a moderation effect of male RMA, as it did not significantly moderate the relationship between male victim behaviour and victim blame ($b = 0.29$, $SE = 0.16$, $t(129) =$

1.80, $p = .074$), male victim behaviour and perpetrator blame, ($b = -0.12$, $SE = 0.18$, $t(129) = -0.70$, $p = .484$), nor the relationship between male victim behaviour and seriousness of the crime ($b = -0.12$, $SE = 0.25$, $t(129) = -0.48$, $p = .630$). These results showed that people's level of male RMA did not affect their judgments on victim blame, seriousness of the crime, and perpetrator blame when exposed to a male freezing vs male refusing victim.

Female RMA

Female RMA significantly predicted victim blame ($b = 0.37$, $SE = 0.11$, $t(136) = 3.50$, $p < .001$), perpetrator blame ($b = -0.39$, $SE = 0.12$, $t(136) = 3.22$, $p = .002$), and seriousness of the crime ($b = -0.49$, $SE = 0.15$, $t(136) = -3.38$, $p < .001$). This finding implied that higher levels of female RMA were generally associated with higher levels of victim blame and lower levels of perpetrator blame and seriousness of the crime. Furthermore, female RMA significantly moderated the relationship between female victim behaviour and victim blame, ($b = 0.76$, $SE = 0.14$, $t(136) = 5.30$, $p < .001$), perpetrator blame, ($b = -0.53$, $SE = 0.16$, $t(136) = -3.32$, $p = .001$), and seriousness of the crime, ($b = -0.68$, $SE = 0.20$, $t(136) = -3.47$, $p < .001$).

These statistically significant moderation effects were further analysed using a single linear regression in order to explore the relationship between female RMA and the dependent variables at the different levels of the independent variable (i.e., freezing and refusal). Two data subsets which incorporated only female freezing and female refusing victims were used. For betas, standard errors, t-, p-, and r-squared values resulting from this single linear regression analysis, see Table 3 below. The results presented in the following are all statistically significant at $p < .05$. For victim blame, the slope (i.e., beta) for female freezing victims was higher than the slope for refusing victims. For both perpetrator blame and seriousness of the crime, the slopes for female freezing victims were lower than the slopes for female refusing victims. These results indicated that while female RMA was always associated with higher levels of victim blame and lower levels of seriousness of the crime and perpetrator blame, this effect was stronger when the female victim froze.

Table 3

The Effect of Female RMA on Victim Blame, Perpetrator Blame, and Seriousness of the Crime in the Case of Female Victims

Variable	Condition	*b*	*SE*	*t*	*p*	R^2

VB						
	Freezing	1.13	0.11	10.62	< .001	0.60
	Refusal	0.37	0.10	4.20	< .001	0.22
PB						
	Freezing	-0.92	0.10	-8.86	< .001	0.45
	Refusal	-0.39	0.12	-3.11	.003	0.14
SoC						
	Freezing	-1.17	0.15	-8.05	< .001	0.47
	Refusal	-0.49	0.12	-4.04	< .001	0.21

Note. VB=Victim Blame, PB=Perpetrator Blame, SoC=Seriousness of the Crime

To explore the relationship between female victim behaviour and victim blame, perpetrator blame, and seriousness of the crime at different levels of female RMA, further analyses were done. Thereby, I investigated the estimated marginal means (EMMs) for the interaction between female victim behaviour (freezing vs refusal) and female RMA on the dependent variables, considering different levels of female RMA. The different levels were the 16th percentile as the lower quartile, the 50th percentile as the median, and the 84th percentile as the upper quartile. For the EMM values and standard errors, see Table 4 below. All results were statistically significant at $p < .001$, with $df = 136$. Results showed that all participants, no matter whether they scored low, medium, or high on female RMA showed higher levels of victim blame when the female victim froze compared to when the female victim refused. However, the higher people's level of female RMA was, the stronger this effect was. Thus, for those with high levels of female RMA, this difference was especially large. Furthermore, all participants (again, no matter whether they scored low, medium, or high on female RMA) showed lower levels of perpetrator blame and seriousness of the crime when the female victim froze compared to when the female victim refused. Also here, this difference was particularly large for those with high levels of female RMA.

Table 4

The Effect of Female Victim Behaviour on Victim Blame, Perpetrator Blame, and Seriousness of The Crime at Different Levels of Female RMA

Variable	Female RMA Level	Victim Behaviour	*EMM*	*SE*
VB				

	Low	Freezing	1.13	0.06
		Refusal	1.02	0.07
	Medium	Freezing	1.54	0.05
		Refusal	1.16	0.05
	High	Freezing	2.29	0.07
		Refusal	1.40	0.08
PB				
	Low	Freezing	4.47	0.07
		Refusal	4.77	0.08
	Medium	Freezing	4.14	0.05
		Refusal	4.63	0.06
	High	Freezing	3.54	0.08
		Refusal	4.38	0.09
SoC				
	Low	Freezing	4.43	0.09
		Refusal	4.78	0.10
	Medium	Freezing	4.01	0.07
		Refusal	4.60	0.07
	High	Freezing	3.24	0.10
		Refusal	4.28	0.11

Note. All correlations were statistically significant at $p < .001$, $df = 136$; Low=16th percentile, Medium=50th percentile, High=84th percentile; VB=Victim Blame, PB=Perpetrator Blame, SoC=Seriousness of the Crime

Discussion

This study aimed to test the effects of a rape victim's gender and behaviour on perceptions of victim blame, perpetrator blame, and seriousness of the crime. Additionally,

the impact of rape myth acceptance (RMA) on the relationship between victim behaviour and these perceptions was investigated. Results revealed that male victims, freezing victims, and perpetrators with a refusing victim were blamed more, and rapes involving a refusing and female victim were perceived as more serious. Moreover, while both male and female RMA were associated with higher levels of victim blame and lower levels of perpetrator blame and seriousness of the crime in general, only female RMA specifically influenced perceptions of female freezing victims (i.e., male RMA did not affect perceptions of male freezing victims). Interestingly, all participants exposed to female victims, no matter their level of RMA, showed higher levels of victim blame, and lower levels of perpetrator blame and seriousness of the crime when the female victim froze. However, this difference was particularly large for those with high levels of female RMA. As expected, perpetrator blame and seriousness of the crime were positively correlated with each other but negatively with victim blame. Similarly, both male and female RMA were negatively correlated with perpetrator blame and seriousness of the crime but positively correlated with victim blame.

The Effect of Gender

This study revealed that male victims were blamed more than female victims, and female-to-male rape was perceived as less serious than male-to-female rape. However, there was no difference in how much people blamed a perpetrator depending on the perpetrator's gender. The latter finding is promising, as it suggests that people perceive men and women as equally responsible when they have raped someone and perceive their actions as equally wrong. This result contrasts existing literature suggesting that people commonly believe that women cannot become rapists of men in general (Moore & Miller-Perrin, 2021; Turchik et al., 2016). Nevertheless, while people hold male and female rapists equally responsible, this study also showed that they apparently do not perceive both crimes as equally serious. This finding reinforces what existing literature suggests, namely that people believe that female-perpetrated rape is committed less severely and results in less harm than male-perpetrated rape (Catton & Dorahy, 2020; Stemple et al., 2017; Turchik & Edwards, 2012; van der Bruggen & Grubb, 2014). Struckman-Johnson and Struckman-Johnson (1992) suggest that this view is crucially promoted by the media, which depicts male-to-female rape as something cruel and violent but female-to-male rape as something desirable or amusing, thus as something less serious. Moreover, the finding that male victims are blamed more also aligns with previous research indicating that people believe men to be strong, assertive, and able to protect themselves against a rape, especially when offended by a female (Sleath & Bull, 2009; van der Bruggen & Grubb, 2014). As victims of female-to-male rape do not align

with this view, people blame them more to make sense of the situation (Catton & Dorahy, 2020; Struckman-Johnson & Struckman-Johnson, 1992). Besides the impact of a victim's gender, this study also revealed an effect of a victim's behaviour on people's perceptions.

The Effect of Victim Behaviour

This study showed that freezing victims in general were blamed more, their assault was perceived as less serious, and their perpetrators were blamed less. This aligns with existing literature indicating that people expect rape victims in general to defend themselves with explicit physical and/or verbal refusal (Adams, 2017; Davies et al., 2009; Krulewitz, 1981). A deviation from this expected victim response (e.g., in the form of freezing) can result in more unfavourable views of the victim and more favourable ones of the perpetrator (Galliano et al., 1993; Hopper, 2018; Kollof, 2022; Laso, 2023; Möller et al., 2017; Rubin & Bell, 2023; Schmidt et al., 2008). These findings emphasise that people's perceptions do not align with the reality of freezing victims (Adams, 2017; Fusé et al., 2007; Möller et al., 2017; Schiewe, 2019).

Interestingly, the observed effects of victim behaviour on people's perceptions were not influenced by the victim's gender. Thus, people did not distinguish victims who froze gender-wise but blamed male and female freezing victims equally. Moreover, both male and female participants blamed freezing victims significantly more than refusing victims. Hence, this study showed that expectations about how rape victims should behave are generally gender-neutral. In other words, they do not seem to be influenced by observer or victim gender. These findings are important new insights, as it was not researched before whether people perceive male freezing victims more unfavourably compared to female freezing victims, and whether participants' gender played a role in that, too.

Rape Myth Acceptance and Rape Perceptions

An explorative part of this study found that higher levels of RMA were generally associated with higher levels of victim blame and lower levels of perpetrator blame and seriousness of the crime. These findings align with existing literature indicating that rape myths persist in society and that the more someone endorses rape myths, the more they are inclined to have more unfavourable views of victims and more favourable views of perpetrators (Fisher & Pina, 2013; van der Bruggen & Grubb, 2014).

Furthermore, in-depth analyses found that while male RMA specifically did not affect perceptions of male freezing victims, female RMA affected perceptions of female freezing victims. To illustrate, all participants exposed to female victims (no matter their score on female RMA) showed higher levels of victim blame, and lower levels of perpetrator blame

and seriousness of the crime when the female victim froze compared to when the female victim refused. Interestingly, this difference was particularly large for those who exhibited high levels of female RMA. This finding adds to existing literature and gives compelling new insights into rape myths concerning female victim behaviour, signifying that they hold significant influence, particularly among individuals with high levels of female RMA.

Implications

Gender Neutrality

An important implication of the findings is that efforts must be made to raise awareness about victims of female-to-male rape. This study showed that people's view of rape and its victims is highly gendered, taking the form of more unfavourable views towards male than female victims. Consequently, it is important to emphasise what science indicates about male rape victims, namely that men can be vulnerable to female rape and that they can suffer tremendously from it too, just as this can be the case for female victims (Bateman & Wathen, 2015; Fisher & Pina, 2013; Weare & Hulley, 2017). Therefore, education efforts should emphasise that rape is a gender-neutral crime that can affect anyone, regardless of their gender. Beyond that, according to Edwards et al. (2011), it is crucial to scientifically explore whether media rape depictions exert a direct impact on individual attitudes about rape and its victims. This might help to identify the media as a potential source reinforcing harmful stereotypes and unfavourable attitudes towards male victims. Also, there must be a strong demand for gender neutrality in prosecutions of rape cases, as male victims are generally less likely to report a rape due to the fear of disbelief (Catton & Dorahy, 2020; Clements et al., 2013). Research indicates that some male victims perceive the treatment after the rape as traumatising or even more detrimental to their wellbeing than the sexual assault itself due to a lack of empathy from professionals (Bateman & Wathen, 2015). According to Capers (2011), it is possible to prevent the risk of this so-called "secondary victimisation" through general education as well as training of professionals. A gender-neutral reconceptualization of rape would incorporate the reality of male victimisation, stimulate people to rethink the real harm of rape itself, regardless of who is involved, and ultimately bring justice to all victims.

Diversity of Victim Responses

The findings not only imply the importance of recognising that rape can impact individuals of any gender but also the need to address the diverse range of victim responses. Hence, society should be educated on the scientific evidence indicating that every rape victim responds differently, and that freezing is a common (but misunderstood) victim response,

among others. Moreover, it should be stressed that a victim's behaviour should never be an indicator of how to judge a rape. Recent public movements, such as the Scottish *I Just Froze* campaign, aim to raise awareness about the freezing response and challenge societal expectations of victim behaviour (Adams, 2017). Such movements receive attention and spur discussions; however, it should not only be the responsibility of independent campaigns to educate society about the freezing response. Public institutions should also take responsibility for educating professionals working with victims about different victim responses. Beyond that, it is noteworthy that both Dutch and German law fail to recognise those who froze as rape victims. To ensure just treatment of all victims, both laws must be revised and adjusted in accordance with the scientific understanding of freezing victims.

Debunking Rape Myths

Beyond addressing flawed expectations of victim behaviour, this study's findings underscore the importance of addressing prevalent misconceptions and myths surrounding rape to prevent false judgments and unjust impressions of rape victims. This is particularly relevant within the professional sectors of society. For example, rape myths can crucially impact a juror's judgments of a victim's credibility in court settings, making a guilty finding less likely (Hill, 2014; Smith & Skinner, 2017). Moreover, police officers also have a unique responsibility in the investigation of rape cases because they are often the first person the victim interacts with after the assault. According to Sleath and Bull (2017), police officers generally demonstrate low levels of rape myth acceptance, and only a small minority of officers significantly subscribe to rape myths (Murphy & Hine, 2018; Sleath & Bull, 2017). Parratt and Pina (2017) suggest that the high numbers of victim withdrawals in rape complaints can be attributed to a "secondary victimisation" by police officers, taking the form of unfavourable beliefs about the victim's credibility and stigma. Therefore, even if the number of police officers who endorse rape myths is small, they still seem to represent a significant barrier to a victim's reporting experience after the assault (Calton et al., 2016; Murphy & Hine, 2018). Therefore, it is important to develop interventions to educate police officers about the consequences of accepting rape myths and what this can mean for rape victims and society as a whole, too.

According to Murphy and Hine (2018), some examples of effective training programmes exist; however, most studies indicate that attitudinal interventions are generally ineffective in reducing police officers' endorsement of rape myths. These findings suggest that an attitudinal change regarding rape myths among police officers is a more complex process than initially presumed. Therefore, Murphy and Hine (2018) propose that a shift of

focus is necessary, which moves beyond addressing rape myth acceptance as the only issue to considering the broader cognitive and attitudinal context of rape myths. This shift can function as a crucial starting point for designing new interventions. By equipping police officers with the skills to comprehend rape myths and their consequences as well as the ability to engage with victims in an objective and compassionate manner, society can strive towards a more just treatment of all victims.

Limitations and Future Recommendations

This study exhibited important limitations that need to be considered when interpreting the findings. Overall, this study was an experimental one with a fairly minimal amount of information within the police reports. In reality, people may have access to more information about a rape allegation and therefore have different perceptions of it. Consequently, results have to be treated with caution, as the observed effects might be different in reality. In other words, it is important to be wary of making assumptions based on this experiment about what might occur in much more complex criminal cases of rape and sexual assault.

Moreover, this study exhibited a strong sampling bias as participants were mainly German and Dutch, most of them reported a high school or bachelor's degree as their highest educational level, and they were on average around 24 years old. Consequently, the generalizability of the findings to other age groups as well as other educational and cultural backgrounds is limited. Investigating the views of mid- and old-aged members of society, individuals with a lower and higher educational background, and also those from different cultural backgrounds, can possibly provide a more comprehensive picture of how society perceives rape cases. As an example, when including older members of society, the effects may have been stronger because individuals from older generations may have received less education about rape, its victims, and its consequences compared to younger generations that grew up in times of #MeToo and other anti-rape movements (Poskin, 2006). In regard to people's cultural backgrounds, Nielsen et al. (2017) emphasise that most scientific research publishes data based on western, educated, industrialised, rich, and democratic populations. This leads to culturally specific findings being misattributed as universal traits. Therefore, there is a need for more diverse samples, as cultural variation is considered a crucial aspect of human cognition (Nielsen et al., 2017). Consequently, when interpreting this study's findings, it has to be kept in mind that they perhaps do not capture the perceptions of all members of society.

Also, given that the topic of rape and sexual assault is sensitive and stigmatised in society, participants may have been more likely to give socially desirable responses. According to Krumpal (2013), people who are asked about sensitive topics in surveys tend to overreport socially desirable and underreport socially undesirable characteristics, a phenomenon known as the social desirability bias. This bias could have led to an overestimation of the seriousness of the crime perceptions, and an underestimation of the rape myth acceptance prevalence and victim and perpetrator blame perceptions in this study. Future research can account for that by employing more reminders to participants about the anonymity of their responses throughout the course of the research. Moreover, a research technique that aims to mitigate the influence of the social desirability bias is indirect questioning (Fisher, 1993). Thereby, participants are asked to respond from the perspective of another person or group, which allows them to reveal their own beliefs hidden by a degree of impersonality. Future studies of rape and sexual assault should consider such indirect techniques, as they have the potential to mitigate the influence of the social desirability bias.

Conclusion

This study examined the influence of a rape victim's gender (male vs female) and behaviour (freezing vs refusal) on perceptions of victim blame, perpetrator blame, and seriousness of the crime. Male victims, freezing victims, and perpetrators with a refusing victim were blamed more, and rapes of refusing and female victims were perceived as more serious. Moreover, higher levels of rape myth acceptance were associated with more unfavourable perceptions of victims, with female rape myth acceptance particularly affecting perceptions of female freezing victims. The findings illustrate persistent societal misconceptions of male and freezing victims as well as the persistence of rape myths in general. In light of these results, it is important to educate the public about the gender-neutral nature of rape crimes, the diversity of victim responses, and the detrimental consequences any victim can experience after a rape. Moreover, providing training and education to professionals involved with victims is substantial to help prevent a "secondary victimisation" of rape victims.

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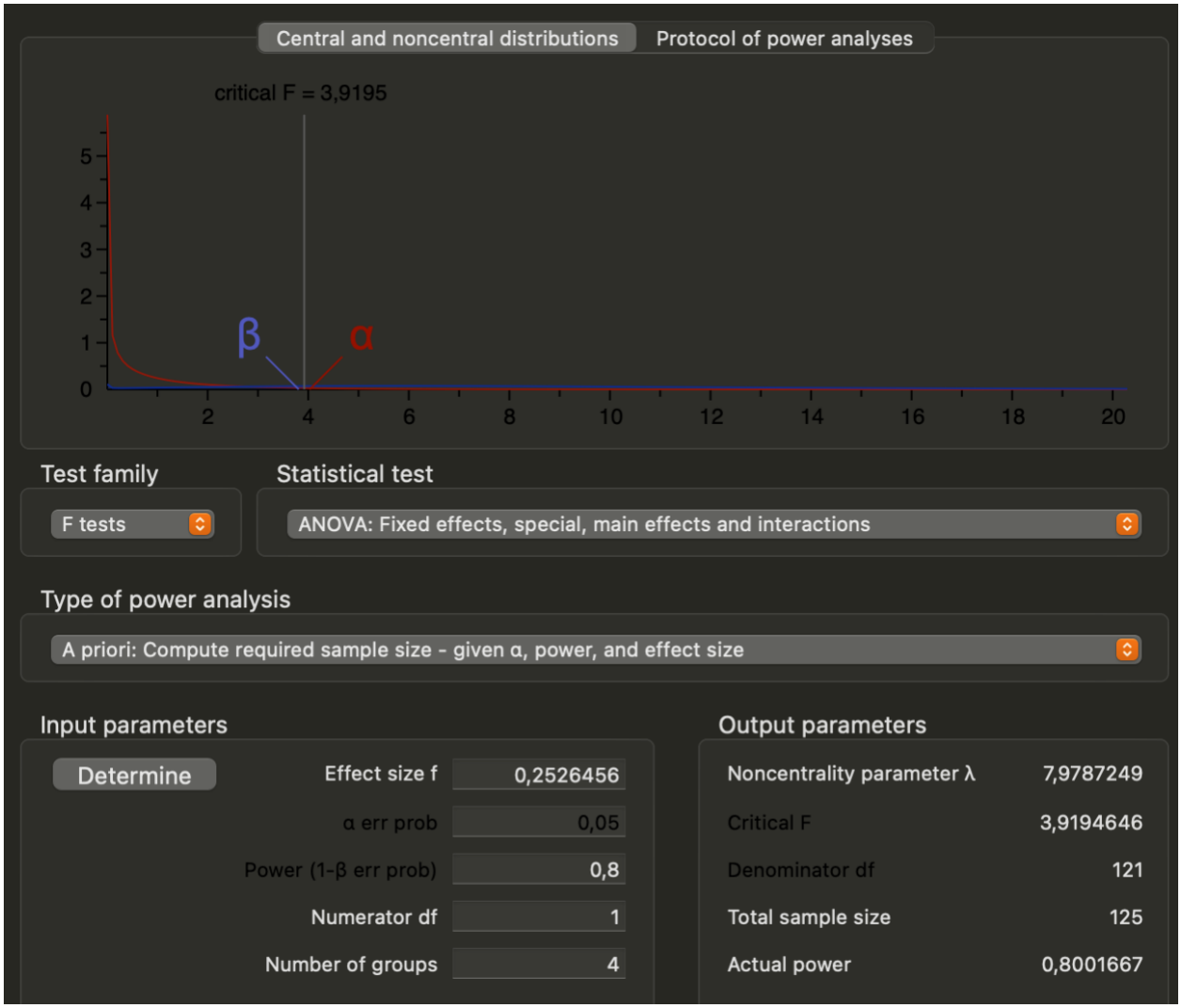
Appendix A

G*Power Analysis



Appendix B

Police Reports

1) Female - Freezing

Anna M. entered the police office on 05/05/2022, 10:30 pm. She indicated that she has just been raped by Robert K., a close friend. Anna M. reported that she had dinner with Robert K. in her apartment. When they were done eating, they started to watch TV in her living room, sitting next to each other on the sofa. After a while, Robert K. started to touch her thighs and tried to kiss her. Then, he took off her clothes, partially undressed himself, and started to have sex with her. Anna M. reported that she thought it was clear that she did not want this event to occur because during the rape, she froze and passively submitted, and did not know how to make the situation stop.

2) Female - Refusal

Anna M. entered the police office on 05/05/2022, 10:30 pm. She indicated that she has just been raped by Robert K., a close friend. Anna M. reported that she had dinner with Robert K. in her apartment. When they were done eating, they started to watch TV in her living room, sitting next to each other on the sofa. After a while, Robert K. started to touch her thighs and tried to kiss her. Then, he took off her clothes, partially undressed himself, and started to have sex with her. Anna M. indicated that she said no repeatedly, shouted at him to stop, and tried to push him off until the rape was over.

3) Male - Freezing

Robert K. entered the police office on 05/05/2022, 10:30 pm. He indicated that he has just been raped by Anna M., a close friend. Robert K. reported that he had dinner with Anna M. in his apartment. When they were done eating, they started to watch TV in his living room, sitting next to each other on the sofa. After a while, Anna M. started to touch his thighs and tried to kiss him. Then, she took off his clothes, partially undressed herself, and started to have sex with him. Robert K. reported that he thought it was clear that he did not want this event to occur because during the rape, he froze and passively submitted, and did not know how to make the situation stop.

4) Male - Refusal

Robert K. entered the police office on 05/05/2022, 10:30 pm. He indicated that he has just been raped by Anna M., a close friend. Robert K. reported that he had dinner with Anna M.

in his apartment. When they were done eating, they started to watch TV in his living room, sitting next to each other on the sofa. After a while, Anna M. started to touch his thighs and tried to kiss him. Then, she took off his clothes, partially undressed herself, and started to have sex with him. Robert K. indicated that he said no repeatedly, shouted at her to stop, and tried to push her off until the rape was over.

Appendix C

Participant Scale Instructions

Rape Myth Acceptance (RMA) - Female Victims

To what extent do you agree with the following statements?

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
If a girl is raped while she is drunk, she is at least somewhat responsible for letting things get out of hand.	○	○	○	○	○
When girls go to parties wearing slutty clothes, they are asking for trouble.	○	○	○	○	○
If a girl goes to a room alone with a guy at a party, it is her own fault if she is raped.	○	○	○	○	○
If a girl acts like a slut, eventually she is going to get into trouble.	○	○	○	○	○
When girls get raped, it's often because the way they said "no" was unclear.	○	○	○	○	○
If a girl initiates kissing or hooking up, she should not be surprised if a guy assumes she wants to have sex.	○	○	○	○	○

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
When guys rape, it is usually because of their strong desire for sex.	○	○	○	○	○
Guys don't usually intend to force sex on a girl, but sometimes they get too sexually carried away.	○	○	○	○	○
Rape happens when a guy's sex drive goes out of control.	○	○	○	○	○
If a guy is drunk, he might rape someone unintentionally.	○	○	○	○	○
It shouldn't be considered rape if a guy is drunk and didn't realize what he was doing.	○	○	○	○	○
If both people are drunk, it can't be rape.	○	○	○	○	○

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
If a girl doesn't physically resist sex - even if protesting verbally - it can't be considered rape.	○	○	○	○	○
If a girl doesn't physically fight back, you can't really say it was rape.	○	○	○	○	○

A rape probably didn't happen if a girl doesn't have any bruises or marks.	○	○	○	○	○
If the accused "rapist" doesn't have a weapon, you really can't call it rape.	○	○	○	○	○
If a girl doesn't say "no" she can't claim rape.	○	○	○	○	○
A lot of times, girls who say that they were raped agreed to have sex and then regretted it.	○	○	○	○	○

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Rape accusations are often used as a way of getting back at guys.	○	○	○	○	○
A lot of times, girls who say they were raped often led the guy on and then had regrets.	○	○	○	○	○
A lot of times, girls who claim they were raped have emotional problems.	○	○	○	○	○
Girls who are caught cheating on their boyfriends sometimes claim it was rape.	○	○	○	○	○

Rape Myth Acceptance (RMA) - Male Victims

To what extent do you agree with the following statements?

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Women who rape men are sexually frustrated individuals.	○	○	○	○	○
The extent of a man's resistance should be a major factor in determining whether he was raped.	○	○	○	○	○
I would have a hard time believing a man who told me that he was raped by a woman.	○	○	○	○	○
Male rape is usually committed by homosexuals.	○	○	○	○	○
A man can enjoy sex even if it is being forced upon him.	○	○	○	○	○
Most men would not enjoy being raped by a woman.	○	○	○	○	○

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Most men who are raped by a woman are very upset by the incident.	○	○	○	○	○
Most men who are raped by a woman are somewhat to blame for not escaping or fighting off the woman.	○	○	○	○	○

Many men claim rape if they have consented to homosexual relations but have changed their minds afterward.	○	○	○	○	○
Any healthy man can successfully resist a rapist if he really wants to.	○	○	○	○	○
If a man obtained an erection while being raped, it probably means that he started to enjoy it.	○	○	○	○	○
It is a terrible experience for a man to be raped by a woman.	○	○	○	○	○

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Most men who are raped by a woman are somewhat to blame for not being more careful.	○	○	○	○	○
If a man engages in necking and petting and he lets things get out of hand, it is his own fault if his partner forces sex on him.	○	○	○	○	○
No self-respecting man would admit to being raped.	○	○	○	○	○
If a man told me that he had been raped by another man, I would suspect that he is homosexual.	○	○	○	○	○

Men who parade around nude in a locker room are asking for trouble.	○	○	○	○	○
A man who has been raped has lost his manhood.	○	○	○	○	○

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
Male rape is more serious when the victim is heterosexual than when the victim is homosexual.	○	○	○	○	○
Most men who have been raped have a history of promiscuity.	○	○	○	○	○
Most men who are raped by a man are somewhat to blame for not escaping or fighting off the man.	○	○	○	○	○
A man who allows himself to be raped by another man is probably homosexual.	○	○	○	○	○

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree

Victim Blame

To what extent do you agree with the following statements?

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
The victim deserved what happened to them because of their behaviour prior to the offence.	○	○	○	○	○
The victim provoked the perpetrator's behaviour.	○	○	○	○	○
The victim could have stopped the incident if they wished.	○	○	○	○	○
The victim's behaviour implied consent.	○	○	○	○	○
The victim played a role in their victimisation.	○	○	○	○	○
The victim asked for being victimised	○	○	○	○	○
The victim is not a rape victim.	○	○	○	○	○

Perpetrator Blame

To what extent do you agree with the following statements?

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
The perpetrator deserves to be severely punished for the act.	○	○	○	○	○
The perpetrator should feel ashamed of what they did.	○	○	○	○	○

The perpetrator is responsible for the act.	○	○	○	○	○
The perpetrator was in full control of their actions during the act.	○	○	○	○	○
The perpetrator was not aware of the non-consent of the victim.	○	○	○	○	○
The perpetrator believed that the victim gave consent to the act.	○	○	○	○	○
The perpetrator was provoked into committing the act.	○	○	○	○	○
The perpetrator's behaviour was the reason that the victim felt distressed.	○	○	○	○	○

Seriousness of the Crime

To what extent do you agree with the following statements?

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I think the actions of the perpetrator were violent.	○	○	○	○	○
I think the victim was physically harmed by the perpetrator's actions.	○	○	○	○	○
I think the victim was psychologically disturbed after the assault.	○	○	○	○	○

I think the perpetrator acted immorally.	○	○	○	○	○
I think the victim was not given a chance to have a say in the situation.	○	○	○	○	○
I think the perpetrator's actions were inherently wrong.	○	○	○	○	○
Compared to other rapes, I think the rape was equally serious.	○	○	○	○	○
I think the perpetrator should be sentenced with the maximum penalty for rape.	○	○	○	○	○