**Measuring Rape Myth Acceptance in Sweden: Psychometric Properties of a Swedish
Translation of The Acceptance of Modern Myths About Sexual Aggression Scale**

Hanna Fernsund

Timothy J. Luke

Department of Psychology, University of Gothenburg

Please avoid quoting from this preprint, since text in subsequent versions may change.

Authors' Note

The study reported in this paper was completed as part of the first author's master's thesis. The authors declare no conflicts of interest. For comments on an earlier draft, we are grateful to Fabiana Alceste.

Abstract

Traditional rape myth acceptance (RMA) scales can yield low means and skewed distributions, potentially because they contain outdated beliefs and blatant wording that is easily recognized as contrary to prevailing norms. The Acceptance of Modern Myths About Sexual Aggression Scale (AMMSA) is an RMA measure which was developed to contain more subtle language and less severe forms of sexual aggression than traditional RMA scales. In this study, the English language AMMSA was translated into Swedish, and we assessed the psychometric properties of the translated instrument. The Swedish language AMMSA had generally desirable statistical properties and correlated positively with relevant measures (e.g., hostile sexism), which supported its validity. The data also provide some support for measurement invariance across men and women. To our knowledge, the present study represents the first report of invariance testing for the AMMSA. However, inconsistent with previous research, which has found the instrument to be unidimensional, the present data suggest the AMMSA may have a more complex statistical structure.

Measuring Rape Myth Acceptance in Sweden: Psychometric Properties of a Swedish Translation of The Acceptance of Modern Myths About Sexual Aggression Scale

Sexual violence against women is a serious global issue. Its magnitude was recently illustrated when the hashtag #metoo, created to highlight the occurrence of sexual violence, went viral on social media in 2017 (Park, 2017). Since then, many people have shared their experiences of sexual violence using the hashtag. Although many have voiced their support for survivors, others have also responded by questioning the credibility of victims' accounts (Lucarini et al., 2020). Why is it that some individuals express support for victims while others question, doubt, or even blame them for the assault? And why might some individuals commit acts of sexual violence while others do not? While these might seem like two very different questions, their complex answers may have something in common: the endorsement of rape myths.

"Rape myths" is an umbrella term for beliefs and attitudes about sexual violence, its victims, perpetrators, circumstances, and consequences (Gerger et al., 2007). While there exist historical and cultural variations in the content and expression of rape myths, examples of common rape myths include the belief that sexual violence happens because men cannot control their sexual urges, that female victims asked for the assault through actions or clothing, or that women exaggerate or lie about their experiences of sexual violence (Gerger et al., 2007; McMahon & Farmer, 2011; Payne et al., 1999). Myths can also contain stereotypes about what a "real" rape is (e.g., a violent attack by a stranger, resulting in torn clothes and/or injuries), while discrediting experiences which do not fit this preconception (Krahé et al., 2008; Temkin et al., 2018). However, these preconceptions do not generally reflect reality, where a majority of rapes are committed by someone familiar with the victim (Black et al., 2011; Rape, Abuse & Incest National Network, 2021). Individuals' belief in or endorsement of rape myths is typically termed *rape myth acceptance* (RMA). Although perpetrators and victims of rape can

be any gender, here we focus on myths about rape where the victim is female, and the perpetrator is male.

Functions of Rape Myths

One proposed function of rape myths is that they contribute to a culture of victim blaming by feeding into beliefs that victims are to blame, while also minimizing the responsibility of perpetrators (Grubb & Turner, 2012). The endorsement of rape myths has been found to be associated with victims having their experiences or credibility questioned in a legal context. For example, police officers who reported higher RMA judge rape scenarios as less authentic and legitimate, and victims as less credible (Hine & Murphy, 2019; Venema, 2016). Victims can also be discredited or questioned in court. A thematic analysis of trial notes by Temkin et al. (2016) found that the stereotype of a “real rape” was used in several trials as a standard against which the victims’ own experiences were compared and to question whether the victims were “really” raped. Victims were further discredited through the myth that rape allegations are frequently false.

Rape myths may also play a role in the perpetration of sexual violence. Men who reported higher RMA have reported higher self-reported rape proclivity, i.e., the belief that they would act in a similar way as a perpetrator in a hypothetical rape scenario (e.g., Bohner et al., 1998; Bohner et al., 2006; Briere & Malamuth, 1983; Chapleau & Oswald, 2010; Eyssel et al., 2006; Romero-Sánchez et al., 2017). Additionally, retrospective studies have found that men who reported higher RMA were also more likely to report previous sexually aggressive or coercive behaviour (e.g., Bohner et al., 2005; Lisak & Ivan, 1995; Locke & Mahalik, 2005; see Murnen et al., 2002 for a meta-analysis). Some longitudinal studies have found higher RMA to be associated with a greater probability of later self-reported sexually violent or coercive behaviour (e.g., Abbey et al., 2012; Thompson et al., 2011; see Yapp & Quayle, 2018 for a systematic review). Grubb and Turner (2012) suggested that one underlying mechanism

behind this relationship may be that “rape myths may act as ‘psychological neutralizers’ that allow men to turn off social prohibitions against hurting others when they want to use force in sexual interactions” (p. 445).

In summary, the endorsement of rape myths may affect victims of sexual violence at individual, societal, and institutional levels (Edwards et al., 2011), which in turn can lead to a multitude of negative consequences. Higher RMA may also be associated with a proclivity for sexual violence and serve as an indicator for potential future sexual violence. Hence, RMA is an important construct to examine for both theoretical and practical purposes.

Measurement of Rape Myths

In the past four decades, several instruments have been developed to measure RMA (e.g., Burt, 1980; Costin, 1985; Feild, 1978; Payne et al., 1999). One of the most well-established RMA scales is the Illinois Rape Myth Acceptance Scale (IRMA). The IRMA was originally developed by Payne et al. (1999) as a 45-item instrument with seven subscales, but it was later updated and shortened by McMahon and Farmer (2011). Both the original and updated IRMA have been, and still are, widely used in research (e.g., Canan et al., 2018; Fansher & Zedaker, 2020; Navarro & Tewksbury, 2017; Newins et al., 2018). However, despite their widespread use, measuring contemporary prejudiced attitudes using instruments which were created decades ago can be problematic.

Since the development of these earlier RMA measures, norms regarding the content and expression of prejudiced beliefs have changed (Eyssel & Bohnner, 2008). For example, Swim et al. (1995) and Swim and Cohen (1997) discuss how both racist and sexist attitudes have developed, as norms regarding their expression have changed over time. That is, more “old-fashioned”, blatant expressions of prejudice have become increasingly unacceptable, leading to a more subtle expression. For example, “old-fashioned” sexism and racism might overtly assert that women or ethnic outgroups are less intelligent, or state opposition against racial

integration (Swim et al., 1995). More modern racism or sexism as described by Swim et al. (1995), instead focus on more subtle expressions of prejudice, such as denial of continued discrimination, antagonism towards discriminated groups' demands, and resentment towards any favours done for the discriminated groups' benefit.

It is reasonable to assume that the expression and content of rape myths would also undergo a similar development as racism and sexism, as it has over time become increasingly unacceptable to publicly express negative and prejudiced views of victims of sexual violence (Eyssel & Böhner, 2008). Thus, scales which were created when rape myths were expressed differently may now have become outdated. In the development of the IRMA, Payne et al. (1999) noted that "these scales are necessarily time and culture bound. Several items use colloquial phrases that might be unclear to certain people or could quickly become outdated" (p.61). If an instrument's items contain outdated beliefs or language which is not acceptable by today's standards, participants may be aware of their "politically correct" answer (Gerger et al., 2007), and indicate disagreement with them since they know indicating agreement is socially unacceptable in modern society. Similarly, if an instrument contains myths which have changed or vanished, participants in modern research may also indicate disagreement with them as the beliefs may be unfamiliar. In both cases, such an instrument will yield less informative data.

Many studies that used older measures such as the IRMA to assess RMA have yielded low means in various settings (e.g., Baldwin-White et al., 2016; Baugher et al., 2010; Newins et al., 2018). That is, the average score was several points below the midpoint of the scale, as a majority of participants indicated strong disagreement with most items. These low means may not necessarily reflect that endorsement of rape myths is generally low in society (Gerger et al., 2007). Rather, they could be a result of these measures containing more outdated beliefs or blatant language which are now generally considered disagreeable.

Besides being non-informative, a data set with low means and thus skewed distributions can also lead to statistical issues. Many commonly used statistical techniques work under the assumption of a normal distribution of scores. Should distributions fail to meet that assumption, results will be less valid and harder to interpret. Furthermore, if researchers aim to assess the effectiveness of an intervention designed to reduce RMA, doing so will be difficult if respondents' contemporary beliefs are not captured in the measure and means are low even prior to the intervention (Gerger et al., 2007). As such, it is highly important that researchers have access to modern, valid, and statistically viable measures of RMA.

The Acceptance of Modern Myths About Sexual Aggression Scale

Gerger et al. (2007) reasoned that if the expression and content of rape myths have undergone the same development as other prejudiced beliefs, a more modern RMA measure would be needed. For this reason, they developed the Acceptance of Modern Myths About Sexual Aggression Scale (AMMSA). The AMMSA was designed to be adapted to the development of rape myths, and to also reflect the content of "classic" rape myths captured in earlier measures. To do so, the AMMSA contains more subtle language than previous scales while also incorporating less obvious myths about rape, as well as less severe forms of sexual aggression (see Appendix A for the full instrument).

The AMMSA was first created in German and then subsequently translated into English by Gerger et al. (2007). The scale has since been adapted to a few other languages, including Spanish and Greek (Hantzi et al., 2015; Megías et al., 2011), as well as a shorter Russian version (Khokhlova & Bohner, 2020). Gerger et al. (2007) provided evidence for the validity and reliability of the German and English AMMSA in four studies. These studies demonstrated that AMMSA scores correlated positively and strongly with IRMA scores, which supported the AMMSA's concurrent validity. Gerger et al. (2007) also found AMMSA scores to correlate positively and strongly with hostile sexism. As RMA and hostile sexism both contain elements

of hostility towards women, these correlations provided support for AMMSA's convergent validity. AMMSA scores were also positively, but more moderately, correlated with other constructs also thought to be related to RMA, such as benevolent sexism and social dominance orientation, which provided further evidence for the convergent validity of the scale. Gerger et al. (2007) also provided some evidence for the predictive validity of the AMMSA, as their findings suggested that AMMSA scores were predictive of both victim-blaming and rape proclivity later in time. There was also some evidence of the AMMSA's test-retest reliability, as they were able to demonstrate that scores were stable over time for a period of up to 12 weeks.

Several versions of the AMMSA produce less skewed distributions of scores, as compared to the IRMA. Studies that have administered both the IRMA and the AMMSA concurrently have found that IRMA scores tend to be lower and indicate more skewed distributions as compared to AMMSA scores (Gerger et al., 2007; Hantzi et al., 2015; Sleath & Woodhams, 2014; Watson, 2016).

Data from the German, English, Spanish and Greek language AMMSA are consistent with a unidimensional factor structure (Gerger et al., 2007; Hantzi et al., 2015; Megías et al., 2011). However, Gerger et al. (2007) noted that the items of the AMMSA were designed to capture several different, but partly overlapping facets of rape myths. Furthermore, Payne et al. (1999) argued that it may be insufficient to view RMA solely as a unidimensional construct, and that it should be viewed as consisting of both a general component, as well as distinct but interrelated subcomponents. In short, there is reason to consider the possibility that the AMMSA could potentially also possess multidimensional properties.

Measuring Rape Myth Acceptance in Sweden

To our knowledge, at the time of this study, there existed no validated RMA measure in Swedish. Some previous studies which have measured RMA in Swedish-speaking samples

have used RMA scales in English (Jonsson et al., 2015; Persson et al., 2018). Others have generated their own RMA instruments in Swedish for the purpose of their study, either in the form of a single question (Jakobsson & Kotsadam, 2011) or by creating a new multi-item scale based on established RMA scales in English (Adolfsson & Strömwall, 2017; Seto et al., 2015).

However, these approaches have several limitations. Using measures formulated in a language other than participants' native language may produce instances of misunderstanding, which in turn may yield uninformative data. Furthermore, participants who are not proficient in English would not be able to participate in exclusively English language studies, which may produce non-representative samples. The single question format of study is problematic as it is highly limited in its ability to capture the breadth and complexity of a multi-layered construct such as RMA. Creating a new measure without evaluation of its psychometric properties is also undesirable, as researchers cannot be confident in its validity.

Given the limitations of the aforementioned RMA measurement methods, a valid, multi-item, Swedish language RMA scale should be valuable in yielding informative results in Swedish speaking samples. Such an instrument should also be contemporary and statistically meaningful, which as previously discussed, are qualities more often present in AMMSA as compared to traditional RMA measures.

The main purpose of the present study was to translate the English language AMMSA into Swedish and investigate the psychometric properties of the translated scale. Secondary aims were to investigate the measurement invariance of the Swedish language AMMSA across male and female participants, and to investigate the statistical structure of the translated AMMSA. We evaluated a one-factor model, a hypothesized seven-factor model created prior to this study, as well as other exploratory models.

Method

Participants

Participants were recruited via a Swedish survey company with the aim to balance age, gender, and place of residence to get a sample which was approximately representative of the Swedish adult population. Participants were required to be 18 years or older. We collected $N = 576$ initial responses. Sample size was primarily determined by resource constraints. Participants who were removed from the data set if they a) had not completed the study or b) had not correctly completed the Instructional Manipulation Check correctly (see Materials). The final data set consisted of $N = 386$ participants (M age = 55.64 years, $SD = 17.72$, median = 57, range = 19 – 90). Of these, 204 participants identified as female (M age = 54.06 years, $SD = 18.02$, median = 56.5, range = 19-87), and 180 participants identified as male (M age = 57.66 years, $SD = 17.14$, median = 59.50, range = 20-90). One participant identified as non-binary and one participant identified as another gender. The largest occupational status group was “retired” (41.2%), followed by “working fulltime” (38.6%) and “working part-time” (6%). For more detail on the demographic variables, see supplemental materials at <https://osf.io/yzw2u/>.

Materials

Participants completed each of the measures described below, and all materials were provided in Swedish. We created the Swedish versions of all measures noted below as a Swedish translation.

Acceptance of Modern Myths About Sexual Aggression Scale (AMMSA; Gerger et al., 2007), Swedish Translation

The AMMSA is a 30-item scale which assesses the acceptance of myths about sexual aggression against women (e.g., “Many women tend to misinterpret a well-meant gesture as ‘sexual assault’”; “Many women tend to exaggerate the problem of male violence”; “When defining ‘marital rape’, there is no clear-cut distinction between normal conjugal intercourse

and rape”). Responses were recorded on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). See Appendix A for the full instrument.

Updated Illinois Rape Myth Acceptance Scale (IRMA; McMahon & Farmer, 2011), Swedish Translation

The updated IRMA consists of 22 items. McMahon and Farmer (2011) hypothesized that the updated IRMA would comprise four subscales: *a) She Asked For it* (e.g., “When girls go to parties wearing slutty clothes, they are asking for trouble”, *b) He Didn’t Mean To* (e.g., “Rape happens when a guy’s sex drive gets out of control”), *c) It Wasn’t Really Rape* (e.g., “If the accused ‘rapist’ doesn’t have a weapon, you really can’t call it a rape”, and *d) She Lied* (e.g., “A lot of times, girls who say they were raped agreed to have sex and then regret it”). Though their analysis generally supported their hypothesis, the data also suggested that the items from *He Didn’t Mean To* that focus on intoxication (e.g., “If a guy is drunk, he might rape someone unintentionally”), formed a separate, smaller, subscale. However, one item (item 10) cross-loaded on, and was subsequently included in, both subscales. To avoid including the same item twice, we used the hypothesized four subscales. Responses were recorded on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). See Appendix B for the full instrument (available in supplementary materials here: <https://osf.io/d65wh/>).

Ambivalent Sexism Inventory (ASI; Glick & Fiske, 1996), Swedish Translation

The ASI measures two distinct, but complementary, types of sexism towards women: hostile sexism (HS) and benevolent sexism (BS). HS, which is characterized by overall negativity and hostility towards women, is assessed through 11 items (e.g., “Women are too easily offended”). BS, which is characterized by attitudes which support stereotypical gender roles and male dominance, is also assessed through 11 items. The BS items are divided into three subscales: *a) Protective Paternalism* (e.g., “Women should be cherished and protected by men”), *b) Complementary Gender Differentiation* (e.g., “Women, compared to men, tend

to have a superior moral sensibility”) and *c) Heterosexual Intimacy* (e.g., “Every man ought to have a woman whom he adores”). Responses were recorded on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). The English ASI has been shown to have good psychometric properties (Glick & Fiske, 1996). See Appendix C for the full instrument (available in supplementary materials here: <https://osf.io/d65wh/>).

Social Dominance Orientation Scale (SDO; Pratto et al., 1994), Swedish Translation

The SDO scale measures the degree to which an individual prefers inequality among groups in society, with their in-group dominating other groups (Pratto et al., 1994). SDO consists of 16 items, 8 negatively worded (e.g., “Some groups of people are simply inferior to other groups”) and 8 positively worded, reversed items (e.g., “All groups should be given an equal chance in life”). Responses were recorded on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). The English SDO scale has been shown to have good reliability and validity (Pratto et al., 1994; but see Hussey & Hughes, 2020). See Appendix D for the full instrument (available in supplementary materials here: <https://osf.io/d65wh/>).

Sexual Conservatism Scale (SCS; Burt, 1980), Swedish Translation

The SCS assesses sexually conservative beliefs on a 10-item scale (e.g., “A woman who initiates a sexual encounter will probably have sex with anybody”). Responses were recorded on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). See Appendix E for the full instrument (available in supplementary materials here: <https://osf.io/d65wh/>).

Instructional Manipulation Check

An Instructional Manipulation Check (IMC) was included to assess whether participants were paying attention to the questionnaire items before selecting their response. An IMC is a standard attention check which requires participants to fully read the instructions of a control question before being able to enter the correct answer (Oppenheimer, 2009). In this study, participants were instructed at the end of the question instructions to manually write

a plus-sign in a free text box while ignoring the standard 7-point Likert scale. See Appendix F for the full text of the IMC (available in supplementary materials here: <https://osf.io/d65wh/>).

Demographic Information

Age was recorded as a free text option in terms of years old. Participants were given four options to identify their gender with: female, male, non-binary, and other (free text option). Highest level of completed education was measured on an 8-point ordinal scale. Participants were given seven options to indicate their main current occupational status. Participants' place of residence was measured on a standard Swedish 9-point ordinal scale, ranging from 1 = "Bigger city" to 8 = "Rural area". Political ideology was recorded on an 11-point sliding scale ranging from 0 = "far to the left", 5 = "neither to the left nor to the right", 10 = "far to the right"). For a comprehensive description of all scales used, see supplemental materials at <https://osf.io/yzw2u/>.

Procedure

Translation of Instruments

All measures were translated into Swedish using back translation, a technique commonly recommended for cross-cultural research (Brislin, 1970; Chapman & Carter, 1979; Maneesriwongul & Dixon, 2004), and which have been used for previous AMMSA translations (Gerger et al., 2007; Hantzi et al., 2015; Khokhlova & Bohner, 2020; Mégias et al., 2011). The measures were first translated from English into Swedish by a bilingual translator (i.e., the first author). Afterwards, another bilingual translator who was not familiar with the original instruments back translated the Swedish translations into English. The original instruments were then compared to the back translated versions. Any items that were not consistent were discussed and the Swedish translations were edited and re-translated. Only a few items had inconsistencies in their translation, and these inconsistencies were minor and easily resolved.

Creating a Hypothesized AMMSA Factor Structure

To investigate a potential multi-dimensional structure of the Swedish language AMMSA, we created a hypothesized seven-factor structure of the instrument prior to data collection. The hypothesized seven-factor structure was partly based on the four hypothesized IRMA subscales by McMahon and Farmer (2011).

To develop a hypothesized structure, the two authors thematically categorized the items of the AMMSA. First, items that appeared to correspond to the four subscales She Asked For It, It Wasn't Really Rape, He Didn't Mean To and She Lied were sorted accordingly. Then the remaining items were sorted according to potential factors and re-arranged until we felt a satisfactory solution had been reached. The two authors independently carried out this procedure. Then, we discussed and compared our hypothesized subscales. In our judgement, our proposed structures were similar but not identical. Discrepancies were discussed until we reached an agreement. The hypothesized subscales are presented in Table 1.

Table 1.
The Hypothesized Seven-Factor AMMSA Structure.

Subscale and corresponding items (with short name)
She Invited It 2. Once a man and a woman have started “making out”, a woman’s misgivings against sex will automatically disappear. (Making Out) 9. If a woman invites a man to her home for a cup of coffee after a night out this means that she wants to have sex. (Coffee) 11. Any woman who is careless enough to walk through “dark alleys” at night is partly to be blamed if she is raped. (Dark Alleys) 18. When a single woman invites a single man to her flat she signals that she is not averse to having sex. (Invite Home)
He Couldn't Help It 6. It is a biological necessity for men to release sexual pressure from time to time. (Biological) 8. Nowadays, a large proportion of rapes is partly caused by the depiction of sexuality in the media as this raises the sex drive of potential perpetrators. (Sex in Media) 21. A man’s sexuality functions like a steam boiler—when the pressure gets too high, he has to “let off steam”. (Steam Boiler) 26. Alcohol is often the culprit when a man rapes a woman. (Alcohol)
Women Exaggerate and Lie About Sexual Violence

- 3. A lot of women strongly complain about sexual infringements for no real reason, just to appear emancipated. (Emancipated)
- 4. To get custody for their children, women often falsely accuse their ex-husband of a tendency toward sexual violence. (Custody)
- 16. Many women tend to exaggerate the problem of male violence. (Exaggerate)
- 22. Women often accuse their husbands of marital rape just to retaliate for a failed relationship. (Marital Rape)

Gender-Role Stereotyping

- 1. When it comes to sexual contacts, women expect men to take the lead. (Men Take Lead)
- 15. Women like to play coy. This does not mean that they do not want sex. (Play Coy)
- 24. In dating situations the general expectation is that the woman “hits the brakes” and the man “pushes ahead”. (Hit the Brakes)
- 13. Most women prefer to be praised for their looks rather than their intelligence. (Praise Looks)
- 12. When a woman starts a relationship with a man, she must be aware that the man will assert his right to have sex. (Assert Right)

Sexual Violence Didn't Really Happen

- 5. Interpreting harmless gestures as “sexual harassment” is a popular weapon in the battle of the sexes. (Harmless Gestures)
- 10. As long as they don't go too far, suggestive remarks and allusions simply tell a woman that she is attractive. (Suggestive Remarks)
- 23. The discussion about sexual harassment on the job has mainly resulted in many a harmless behaviour being misinterpreted as harassment. (On the Job)
- 27. Many women tend to misinterpret a well-meant gesture as a “sexual assault”. (Well-Meant)
- 17. When a man urges his female partner to have sex, this cannot be called rape. (Urge Partner)
- 20. When defining “marital rape”, there is no clear-cut distinction between normal conjugal intercourse and rape. (Not Clear Cut)

Victims Get Enough Help

- 7. After a rape, women nowadays receive ample support. (Ample Support)
- 25. Although the victims of armed robbery have to fear for their lives, they receive far less psychological support than do rape victims. (Fear for Lives)
- 28. Nowadays, the victims of sexual violence receive sufficient help in the form of women's shelters, therapy offers, and support groups. (Shelters)
- 30. Nowadays, men who really sexually assault women are punished justly. (Punished)

Sexual Violence Isn't Really a Problem in Society

- 14. Because the fascination caused by sex is disproportionately large, our society's sensitivity to crimes in this area is disproportionate as well. (Fascinated by Sex)
- 19. When politicians deal with the topic of rape, they do so mainly because this topic is likely to attract the attention of the media. (Politicians)
- 29. Instead of worrying about alleged victims of sexual violence society should rather attend to more urgent problems, such as environmental destruction. (Environmental)

Note: The numbers in this table refer to the order of the items in the scale. Short names are provided for ease of later reference and were not presented to participants.

Data Collection and Analysis

This study was preregistered prior to data collection on the Open Science Framework at <https://osf.io/28mhn>. All data was collected online using Qualtrics. Participants were paid 65 SEK (approximately 7 USD) for their participation. To counteract order effects, the order of the instruments as well as the instrument items was randomized. The IMC appeared after either the second or third instrument each participant completed. Analyses were conducted using R (R Core Team, 2022). Analysis code and additional supplemental materials are available at <https://github.com/RabbitSnore/ammsa-swe>. For more details about the analysis plan and the process of data screening prior to analysis, see the preregistration and the supplemental documents archived here: <https://osf.io/h6n4k/>.

Ethics

We followed applicable laws and guidelines for the ethical conduct of research in Sweden. Additionally, at the end of the study, participants were informed that if they had previously been affected by any of the subjects discussed in the study, they could contact Brottsofferjouren (www.brottsofferjouren.se).

Results

Descriptive Statistics

Table 2 displays the means (*M*) and standard deviations (*SD*) for the total scores and subscales for all measures. Figure 1 displays the frequency distributions for AMMSA and IRMA total scores. As can be seen, the shapes of these distributions differ, with AMMSA scores considerably more normally distributed, though the lower boundary of the scale constrains one of the tails of the distribution.

Table 2.

Descriptive statistics for all translated measures and their sub-scales for women, men, and all genders.

	Female <i>M</i> (<i>SD</i>)	Male <i>M</i> (<i>SD</i>)	All genders <i>M</i> (<i>SD</i>)
AMMSA (total score)	2.69 (0.86)	3.22 (0.81)	2.94 (0.88)
IRMA (total score)	1.76 (0.60)	2.08 (0.58)	1.90 (0.61)
She Asked For It (IRMA)	1.76 (0.71)	2.08 (0.64)	1.91 (0.69)
He Didn't Mean To (IRMA)	1.91 (0.69)	2.15 (0.64)	2.02 (0.68)
It Wasn't Really Rape (IRMA)	1.36 (0.54)	1.60 (0.62)	1.47 (0.59)
She Lied (IRMA)	2.05 (0.82)	2.55 (0.77)	2.28 (0.83)
Ambivalent Sexism (total score)	3.35 (0.87)	3.86 (0.81)	3.58 (0.88)
Hostile Sexism (HS total)	3.28 (1.08)	4.01 (1.01)	3.62 (1.11)
Benevolent Sexism (BS total)	3.30 (1.04)	3.75 (0.98)	3.51 (1.04)
Protective Paternalism (BS subscale)	2.92 (1.25)	3.40 (1.23)	3.15 (1.26)
Gender Differentiation (BS subscale)	3.90 (1.72)	4.14 (1.62)	4.01 (1.68)
Heterosexual Intimacy (BS subscale)	3.23 (1.20)	3.79 (1.26)	3.49 (1.26)
Sexual Conservatism	2.62 (0.93)	2.80 (0.83)	2.70 (0.89)
Social Dominance Orientation	2.21 (0.88)	2.58 (1.01)	2.37 (0.96)

Figure 1.

Frequency Distributions for AMMSA and IRMA Total Scores

Bivariate Correlations

Total AMMSA scores correlated positively and strongly with total IRMA scores, $r = .84$ [.81, .87]. Total AMMSA scores correlated positively and strongly with hostile sexism, $r = .61$ [.55, .67], and SCS, $r = .62$ [.55, .67], and positively and moderately with benevolent sexism, $r = .45$ [.37, .52], and SDO, $r = .45$ [.37, .53]. For correlations between all total scores and subscales, see Table 3. Figure 2 displays the relationship between the AMMSA and a selection of relevant variables. For correlational analyses which also included participants who did not correctly complete the IMC, see supplemental materials at <https://osf.io/q3rhc/>. For bivariate correlations between individual AMMSA items, see supplemental materials at <https://osf.io/f8pe9/>.

AMMSA correlated positively with age, $r = .28$ [.19, .37], and political ideology, $r = .22$ [.12, .31]. AMMSA correlated negatively with years of completed education, $r = -.15$ [-.25, -.05]. AMMSA did not correlate with place of residence, $r = .01$ [-.10, .10]. In other words, being older, describing oneself as more right-wing, and having less years of completed education was associated with higher AMMSA scores. Residing in a more rural or more urban area was not associated with weaker or stronger agreement with AMMSA items.

Table 3.

Bivariate Correlations Between Total Scores and Subscales

	IRMA	SAFI	IWNRR	SL	HDNMT	ASI	HS	BS	PP	GD	HI	SCS	SDO
AMMSA	.84	.77	.65	.80	.72	.63	.61	.45	.36	.30	.36	.60	.45
IRMA		.92	.85	.86	.87	.51	.52	.37	.30	.24	.30	.62	.42
SAFI			.75	.72	.74	.44	.43	.34	.27	.20	.30	.63	.38
IWNRR				.61	.64	.36	.34	.29	.24	.19	.22	.52	.39
SL					.66	.51	.59	.32	.25	.22	.26	.49	.42
HDNMT						.45	.42	.34	.25	.26	.25	.46	.23
ASI							.85	.85	.69	.63	.60	.45	.38
HS								.43	.36	.33	.28	.39	.44
BS									.79	.71	.76	.39	.24
PP										.33	.46	.32	.16
GD											.27	.31	.20
HI												.25	.18
SCS													.31

Note: All correlations were significant at the .01 level (2-tailed). AMMSA = AMMSA (total score), IRMA = IRMA (total score), SAFI = She Asked For It (IRMA subscale), IWNRR = It Wasn't Really Rape (IRMA subscale), SL = She Lied (IRMA subscale), HDNMT = He Didn't Mean to (IRMA subscale), ASI = Ambivalent Sexism Inventory (total score), HS = Hostile Sexism, BS = Benevolent Sexism (total score), PP = Protective Paternalism (Benevolent Sexism subscale), GD = Gender Differentiation (Benevolent Sexism subscale), HI = Heterosexual Intimacy (Benevolent Sexism subscale), SCS = Sexual Conservatism Scale, SDO = Social Dominance Orientation.

Figure 2.

Scatterplots for AMMSA Total Scores and Related Measures

Confirmatory Factor Analyses

We fit two confirmatory factor models: a one-factor model and a seven-factor model. Both models were fit using the *lavaan* package (Roseel, 2012) for R.

The absolute fit indices indicated that the fit of the one-factor model was poor to mediocre, $\chi^2 = 1423.10$, $df = 405$, $p < .001$, CFI = .791, RMSEA = .081, 90% CI [.076, .085], AIC = 38360.31, BIC = 38716.34. However, the incremental fit index indicated good fit, SRMR = .064. Due to the presence of multivariate non-normality in this data set, we used bootstrapping with 5000 bootstrap samples to estimate standard errors and 95% confidence intervals (CIs) for the regression coefficients. None of the CIs for the coefficients included zero. For a visualization of the model, see Figure 3. Further information for this model is available in supplemental materials at <https://osf.io/7pxnv/> (coefficients and CIs) and <https://osf.io/z7a8m/> (full model output).

For the seven-factor model, we again used bootstrapping with 5000 bootstrap samples to estimate standard errors and 95% bias-corrected CIs. Fit indices indicated that this model had a better fit compared to the one-factor model, $\chi^2 = 869$, $df = 384$, $p < .001$, CFI = .900, RMSEA = .057, SRMR = .063, AIC = 37848.21, BIC = 38287.31. For a visualization of the model, see Figure 4. Further information for this model is available in supplemental materials at <https://osf.io/7pxnv/> (coefficients and CIs) and <https://osf.io/z7a8m/> (full model output). In short, contrary to prior research, the one-factor model was a poor fit with the data, and a multi-factor model appears to better represent the Swedish AMMSA.

Measurement Invariance

We conducted tests of measurement invariance across men and women using the one-factor model and seven-factor model. For CFI, Δ CFI, RMSEA, Δ RMSEA, SRMR and Δ SRMR, see Table 4. Based on the guidelines by Chen (2007), changes in CFI suggested weak invariance for the one-factor model. For the seven-factor model, the changes in CFI suggested

strict invariance across the tested genders. For both models, the changes in RMSEA and SRMR suggested invariance across all levels of restriction.

Table 4.

CFI, ΔCFI , RMSEA, $\Delta RMSEA$, SRMR and $\Delta SRMR$ for all levels of invariance testing, for one-factor model and seven-factor model.

Level	CFI	ΔCFI	RMSEA	$\Delta RMSEA$	SRMR	$\Delta SRMR$
<i>One-Factor</i>						
Configural	.759		.085		.074	
Weak	.752	.007	.085	< .001	.087	.013
Strong	.739	.013	.086	.001	.090	.003
Strict	.732	.007	.085	-.001	.093	.003
<i>Seven-Factor</i>						
Configural	.871		.064		.074	
Weak	.861	.010	.064	< .001	.081	.007
Strong	.857	.004	.065	.001	.085	.004
Strict	.848	.009	.066	.001	.086	.001

Figure 3.
One-Factor Model for the AMMSA

Figure 4.
Seven-Factor Model for the AMMSA

Network Modeling (Exploratory Analysis)

An alternative to factor analysis is to conceptualize a constellation of observed attitude and beliefs as a network of interconnected cognitions, rather than as the manifestations of a latent factor (see, e.g., Delage et al., 2016). As an exploratory analysis, we fit a Gaussian Graphical Model (GGM; Epskamp & Fried, 2018) for the AMMSA, using the *psychometrics* package (Epskamp, 2021), supplemented with the *qgraph* package (Epskamp et al, 2012), for R. To arrive at a retained model, we used the *prune()* and *modelsearch()* functions of *psychometrics* to iteratively prune nonsignificant edges ($\alpha = .05$) and then iteratively modify and refit the model to minimize the Bayesian Information Criterion. The resulting model was a good fit for the data, $\chi^2 = 621.78$, $df = 368$, $p < .001$, CFI = .948, RMSEA = .042, 90% [.038, .048], AIC = 37632.99, BIC = 38135.38. This model outperformed the hypothesized one-factor and seven-factor models (see Kan et al, 2020), but given that this GGM was not confirmatory, this improvement in model fit should be interpreted with caution. For further detail on this model, including all edges with estimated standard errors, see <https://osf.io/z7a8m/>. Figure 5 provides a visual representation of the model. As can be seen, although the network is fully connected (i.e., there is a path from each node to each other node), there were relatively few strong correlations between nodes. Correspondingly, the average shortest path length between nodes was 12.22 (Dijkstra, 1959), suggesting relatively low connectivity.

Figure 5.
Gaussian Graphical Network Model for the AMMSA

Note: For a full list of edges and corresponding partial correlations, see supplemental materials (<https://osf.io/z7a8m/>).

Discussion

Overall, the present study provided support for the validity of the Swedish translation of the AMMSA. To our knowledge, no validated Swedish language measure of RMA existed prior to this study. Consistent with prior research, total scores on the Swedish AMMSA were more normally distributed than those of the IRMA, making it more suitable for use with many conventional statistical analyses. Also consistent with prior research, AMMSA total scores were strongly positively correlated with IRMA total scores (Gerger et al., 2007; Hantzi et al., 2015; Sleath & Woodhams, 2014; Watson, 2016), ambivalent sexism (Khokhlova & Bohner, 2020; Mégias et al., 2011; Murphy & Hine, 20018; Persson et al., 2018), sexual conservatism (Watson, 2016), and social dominance orientation (Süssenbach & Bohner, 2011). These results suggest that the AMMSA captures a construct closely related to attitudes that entail male subjugation of women and social inequality more generally, and thus, these results support the instrument's convergent validity.

We also found that men scored higher on the AMMSA than women. Previous research has found similar gender differences in rape myth acceptance (e.g., Davies et al., 2012; Gerger et al., 2007; Hammond et al., 2011; Hantzi et al., 2015; Mégias et al., 2011; Watson, 2016; see Suarez & Gadalla, 2010 for a meta-analysis). This difference may result from patriarchal structures present in the societies in which the research was conducted. Feminist theories suggest that a patriarchal society which marginalizes women's experiences perpetuates rape myths. These rape myths may then serve to legitimize and justify sexual violence towards women in male-dominated societies (Edwards et al., 2011; Suarez & Gadalla, 2010). In such a society, men would be expected to endorse rape myths to a higher degree than women.

Statistical Structure of the AMMSA

Although the present study provides support for the use of the Swedish AMMSA as a whole, our results also contrast with previous research on the AMMSA. Previous studies have

found several translations of the 30-item AMMSA to be unidimensional (Gerger et al, 2007; Hantzi et al., 2015; Mégias et al., 2011). That is, that the observed response patterns on all AMMSA items appeared to be related to the same general underlying attitude about sexual violence towards women. The results of this study were not consistent with these previous findings. The one-factor model provided poor fit with the present data. A hypothesized seven-factor model outperformed the one-factor model, raising the possibility of a multifactorial structure. However, correlations between some of the latent factors were very strong (see Figure 4), which suggests that some or all of the modeled factors may not assess separate constructs. The AMMSA might be better represented by fewer latent factors (for supplemental analyses in which we attempted to identify such a structure, see <https://osf.io/cx6g7/>).

Payne et al. (1999) argued that rape myth acceptance can be viewed as both a unidimensional and multidimensional construct. That is, while there may exist one overarching, general “endorsement of sexual aggression myths” construct, captured in previous analyses of AMMSA’s unidimensional factor structure, there may also exist several sub-components worthy of exploration and description. Endorsement of rape myths might originate from a general attitude about sexual violence, but within that attitude there may also exist subsets of attitudes. These subsets of attitudes may represent clusters of more specific beliefs about aspects sexual violence, which may in turn affect behaviors in unique ways. Indeed, the IRMA includes several subscales intended to correspond to different such clusters of beliefs (McMahon & Farmer, 2011; Payne et al, 1999).

Although to the best of our knowledge previous research has exclusively used factor analysis to investigate the structure of rape myth measures, modeling rape myths as latent factors is not the only possible conceptualization. As an exploratory analysis, we also modeled the AMMSA as a network of interconnected cognitive evaluations. Modeling attitudes as networks carries both statistical and theoretical implications (Delage et al, 2016). Whereas

latent variable models (e.g., factor analysis) assume that observed variables have a common (unobserved) cause, network models make no such assumptions. Substantively, a latent variable model implicitly assumes that external influence (e.g., an experimental manipulation) on one of the observed variables would have no impact on any of the other observed variables, and in contrast, a network model like the one we used here assumes that influencing an observed variable would have rippling effects on other variables throughout the network (see, e.g., Borsboom, 2017). In a low-connectivity network like the one estimated here for the AMMSA, we would expect changes in specific beliefs to have effects on adjacent items, but overall attitudes across the network (e.g., what are assessed by total scores) would tend to change relatively slowly (Delage et al., 2017, 2019).

The present data cannot provide a test to distinguish between the plausibility of these theoretical structures, but future research might consider examining interventions that attempt to influence people's endorsement of specific beliefs captured by the AMMSA. Future research should also assess the relative fit of latent variable models and network models in a confirmatory manner, rather than the exploratory approach we took here (see, e.g., Kan et al. 2019). Such research could provide information about the theoretical viability of latent variable models versus network models.

Measurement Invariance

As part of an investigation into an instrument's validity and functionality, it is important to assess its measurement invariance, i.e., that its items are functioning the same for all respondents. Despite the ambiguity of the internal structure of the AMMSA, the present data provide some indications that the Swedish AMMSA functions highly similarly for men and women. For the one-factor model, measurement invariance tests indicated mixed results. While changes in RMSEA and SRMR suggested invariance across all levels of restrictions, CFI changes suggested weak and strict invariance but not strong invariance. However, the CFI

change was just above the cut-off provided by Chen (2007). In other words, there appeared to exist at least weak invariance across men and women for the one-factor model. For the seven-factor model, the results indicated strict invariance.

Given that past research and the present study have found gender differences in the endorsement of rape myths, this type of measurement invariance is highly useful for research. However, there exist, to our knowledge, no previous reports on tests of measurement invariance of the AMMSA. Therefore, we do not know whether invariance across men and women is a characteristic unique to the Swedish language AMMSA, or other versions of the instrument as well. This lack of invariance testing in the literature is a serious limitation of the extant research, especially considering how frequently psychological measurements fail invariance testing (see Hussey & Hughes, 2020).

Limitations and Future Directions

The present study focused on the structural psychometric properties of the Swedish AMMSA, and we did not examine the extent to which scores on the AMMSA predict relevant behavior. Investigation of the AMMSA's predictive validity of real-life behavior such as sexually violent behavior or victim blaming (within ethical limits) would also yield valuable knowledge. Research about how modern prejudiced attitudes about sexual aggression can predict related behaviors may contribute to work aimed at improving the treatment of victims, and improve interventional methods designed to prevent future sexual violence.

Exclusion of participants who did not complete the IMC correctly led to a removal of 125 participants after initial data cleaning. Results from analyses where the participants who did not correctly complete the IMC were not excluded yielded similar results to those from the smaller sample (see supplemental materials at <https://osf.io/q3rhc/>). Although recruiting a larger sample size would have been preferable, doing so was not possible due to resource constraints. A larger sample would have allowed not only for more confident conclusions, but

also for further invariance testing (e.g., multiple age groups, occupational status, or political ideologies).

Participants were recruited with the aim of recruiting a sample as representative of the Swedish population as possible. However, the mean age for the sample in this study was 55.6 years. In 2019, the mean age for Sweden's population was 41.3 years (Statistiska Centralbyrån, 2019). Thus, the sample in this study was overall older than the Swedish population. This difference limits confident generalization to the Swedish population.

Conclusion

Given past research and the present results, the Swedish language AMMSA appears to be a functioning and valid measure of modern attitudes about sexual aggression against women, with many desirable statistical properties (e.g., close to normal distribution, measurement invariance across men and women). However, several open questions remain concerning the statistical structure of the AMMSA, as well as the corresponding substantive theoretical structure of the acceptance of rape myths.

References

- Abbey, A., Wegner, R., Pierce, J., & Jacques-Tiura, A. J. (2012). Patterns of sexual aggression in a community sample of young men: Risk factors associated with persistence, desistance, and initiation over a 1-year interval. *Psychology of Violence*, 2(1), 1–15. <https://doi.org/10.1037/a0026346>
- Adolfsson, K., & Strömwall, L. A. (2017). Situational variables or beliefs? A multifaceted approach to understanding blame attributions. *Psychology, Crime & Law*, 23(6), 527–552. <https://doi.org/10.1080/1068316x.2017.1290236>
- Baldwin-White, A., Thompson, M. S., & Gray, A. (2016). Pre- and Postintervention Factor Analysis of the Illinois Rape Myth Acceptance Scale. *Journal of Aggression, Maltreatment & Trauma*, 25(6), 636–651. <https://doi.org/10.1080/10926771.2015.1107173>
- Baughner, S. N., Elhai, J. D., Monroe, J. R., & Gray, M. J. (2010). Rape Myth Acceptance, Sexual Trauma History, and Posttraumatic Stress Disorder. *Journal of Interpersonal Violence*, 25(11), 2036–2053. <https://doi.org/10.1177/0886260509354506>
- Black, M.C., Basile, K.C., Breiding, M.J., Smith, S.G., Walters, M.L., Merrick, M.T., Chen, J., & Stevens, M.R. (2011). *The National Intimate Partner and Sexual Violence Survey (NISVS): 2010 Summary Report*. National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.
- Bohner, G., Jarvis, C. I., Eyssel, F., & Siebler, F. (2005). The causal impact of rape myth acceptance on men's rape proclivity: comparing sexually coercive and noncoercive men. *European Journal of Social Psychology*, 35(6), 819–828. <https://doi.org/10.1002/ejsp.284>
- Bohner, G., Reinhard, M. A., Rutz, S., Sturm, S., Kerschbaum, B., & Effler, D. (1998). Rape myths as neutralizing cognitions: Evidence for a causal impact of anti-victim attitudes on men's self-reported likelihood of raping. *European Journal of Social Psychology*, 28(2), 257–268. [https://doi.org/10.1002/\(SICI\)1099-0992\(199803/04\)28:2<257::AID-EJSP871>3.0.CO;2-1](https://doi.org/10.1002/(SICI)1099-0992(199803/04)28:2<257::AID-EJSP871>3.0.CO;2-1)
- Bohner, G., Siebler, F., & Schmelcher, J. (2006). Social Norms and the Likelihood of Raping: Perceived Rape Myth Acceptance of Others Affects Men's Rape Proclivity. *Personality and Social Psychology Bulletin*, 32(3), 286–297. <https://doi.org/10.1177/0146167205280912>
- Borsboom, D. (2017). The meaning of model equivalence: Network models, latent variables, and the theoretical space in between. *Psych-Networks*. <https://psych-networks.com/meaning-model-equivalence-network-models-latent-variables-theoretical-space/>
- Briere, J., & Malamuth, N. M. (1983). Self-reported likelihood of sexually aggressive behavior: Attitudinal versus sexual explanations. *Journal of Research in Personality*, 17(3), 315–323. [https://doi.org/10.1016/0092-6566\(83\)90023-5](https://doi.org/10.1016/0092-6566(83)90023-5)
- Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of cross-cultural psychology*, 1(3), 185–216. <https://doi.org/10.1177/135910457000100301>
- Burt, M. R. (1980). Cultural myths and supports for rape. *Journal of Personality and Social Psychology*, 38(2), 217–230. <https://doi.org/10.1037/0022-3514.38.2.217>
- Canan, S. N., Jozkowski, K. N., & Crawford, B. L. (2016). Sexual Assault Supportive Attitudes: Rape Myth Acceptance and Token Resistance in Greek and Non-Greek College Students From Two University Samples in the United States. *Journal of Interpersonal Violence*, 33(22), 3502–3530. <https://doi.org/10.1177/0886260516636064>

- Chapleau, K. M., & Oswald, D. L. (2010). Power, Sex, and Rape Myth Acceptance: Testing Two Models of Rape Proclivity. *Journal of Sex Research*, 47(1), 66–78. <https://doi.org/10.1080/00224490902954323>
- Chapman, D. W., & Carter, J. F. (1979). Translation procedures for the cross cultural use of measurement instruments. *Educational Evaluation and Policy Analysis*, 1(3), 71–76. <https://doi.org/10.3102/01623737001003071>
- Chen, F. F. (2007). Sensitivity of Goodness of Fit Indexes to Lack of Measurement Invariance. *Structural Equation Modeling: A Multidisciplinary Journal*, 14(3), 464–504. <https://doi.org/10.1080/10705510701301834>
- Dalege, J., Borsboom, D., van Harreveld, F., van den Berg, H., Conner, M., & van der Maas, H. L. J. (2016). Toward a formalized account of attitudes: The Causal Attitude Network (CAN) model. *Psychological Review*, 123(1), 2–22. <https://doi.org/10.1037/a0039802>
- Dalege, J., Borsboom, D., van Harreveld, F., & van der Maas, H. L. J. (2017). Network Analysis on Attitudes: A Brief Tutorial. *Social Psychological and Personality Science*, 8(5), 528–537. <https://doi.org/10.1177/1948550617709827>
- Dalege, J., Borsboom, D., van Harreveld, F., & van der Maas, H. L. J. (2019). A Network Perspective on Attitude Strength: Testing the Connectivity Hypothesis. *Social Psychological and Personality Science*, 10(6), 746–756. <https://doi.org/10.1177/1948550618781062>
- Dijkstra, E. W. (1959). A note on two problems in connexion with graphs. *Numerische mathematik*, 1(1), 269–271.
- Edwards, K. M., Turchik, J. A., Dardis, C. M., Reynolds, N., & Gidycz, C. A. (2011). Rape Myths: History, Individual and Institutional-Level Presence, and Implications for Change. *Sex Roles*, 65(11–12), 761–773. <https://doi.org/10.1007/s11199-011-9943-2>
- Epskamp S (2021). *psychonetrics: Structural Equation Modeling and Confirmatory Network Analysis*. R package version 0.10, <https://CRAN.R-project.org/package=psychonetrics>.
- Epskamp, S., Cramer, A. O. J., Waldorp, L. J., Schmittmann, V. D., & Borsboom, D. (2012). qgraph: Network Visualizations of Relationships in Psychometric Data. *Journal of Statistical Software*, 48, 1–18. <https://doi.org/10.18637/jss.v048.i04>
- Epskamp, S., & Fried, E. I. (2018). A Tutorial on Regularized Partial Correlation Networks. *Psychological Methods*, 23(4), 617–634. <https://doi.org/10.1037/met0000167>
- Eyssel, F. & Bohner, G. (2008). Modern Rape Myths: The Acceptance of Modern Myths About Sexual Aggression (AMMSA) Scale. In M. A. Morrison & T. G. Morrison (Eds.), *The Psychology of Modern Prejudice* (pp. 261–276). Nova Science Publishers, Inc.
- Eyssel, F., Bohner, G., & Siebler, F. (2006). Perceived Rape Myth Acceptance of Others Predicts Rape Proclivity: Social Norm or Judgmental Anchoring? *Swiss Journal of Psychology*, 65(2), 93–99. <https://doi.org/10.1024/1421-0185.65.2.93>
- Fansher, A. K., & Zedaker, S. B. (2020). The Relationship Between Rape Myth Acceptance and Sexual Behaviors. *Journal of Interpersonal Violence*, 088626052091683. <https://doi.org/10.1177/0886260520916831>
- Gerger, H., Kley, H., Bohner, G., & Siebler, F. (2007). The acceptance of modern myths about sexual aggression scale: development and validation in German and English. *Aggressive Behavior*, 33(5), 422–440. <https://doi.org/10.1002/ab.20195>
- Glick, P., & Fiske, S. T. (1996). The Ambivalent Sexism Inventory: Differentiating hostile and benevolent sexism. *Journal of Personality and Social Psychology*, 70(3), 491–512. <https://doi.org/10.1037/0022-3514.70.3.491>

- Grubb, A., & Turner, E. (2012). Attribution of blame in rape cases: A review of the impact of rape myth acceptance, gender role conformity and substance use on victim blaming. *Aggression and Violent Behavior, 17*(5), 443–452. <https://doi.org/10.1016/j.avb.2012.06.002>
- Hammond, E. M., Berry, M. A., & Rodriguez, D. N. (2011). The influence of rape myth acceptance, sexual attitudes, and belief in a just world on attributions of responsibility in a date rape scenario. *Legal and criminological psychology, 16*(2), 242–252. <https://doi.org/10.1348/135532510X499887>
- Hantzi, A., Lampridis, E., Tsantila, K., & Bohner, G. (2015). Validation of the Greek Acceptance of Modern Myths about Sexual Aggression (AMMSA) Scale: Examining its relationships with sexist and conservative political beliefs. *International Journal of Conflict and Violence, 9*(1), 121–133. <https://doi.org/10.4119/ijcv-3072>
- Hine, B., & Murphy, A. (2019). The influence of ‘High’ vs. ‘Low’ rape myth acceptance on police officers’ judgements of victim and perpetrator responsibility, and rape authenticity. *Journal of Criminal Justice, 60*, 100–107. <https://doi.org/10.1016/j.jcrimjus.2018.08.001>
- Hussey, I., & Hughes, S. (2020). Hidden Invalidity Among 15 Commonly Used Measures in Social and Personality Psychology. *Advances in Methods and Practices in Psychological Science, 3*(2), 166–184. <https://doi.org/10.1177/2515245919882903>
- Jakobsson, N., & Kotsadam, A. (2011). Gender Equity and Prostitution: An Investigation of Attitudes in Norway and Sweden. *Feminist Economics, 17*(1), 31–58. <https://doi.org/10.1080/13545701.2010.541863>
- Jonsson, L. S., Bladh, M., Priebe, G., & Svedin, C. G. (2015). Online sexual behaviours among Swedish youth: associations to background factors, behaviours and abuse. *European Child & Adolescent Psychiatry, 24*(10), 1245–1260. <https://doi.org/10.1007/s00787-015-0673-9>
- Kan, K.-J., de Jonge, H., van der Maas, H. L. J., Levine, S. Z., & Epskamp, S. (2020). How to Compare Psychometric Factor and Network Models. *Journal of Intelligence, 8*(4), 35. <https://doi.org/10.3390/jintelligence8040035>
- Kan, K.-J., van der Maas, H. L. J., & Levine, S. Z. (2019). Extending psychometric network analysis: Empirical evidence against g in favor of mutualism? *Intelligence, 73*, 52–62. <https://doi.org/10.1016/j.intell.2018.12.004>
- Krahé, B., Temkin, J., Bieneck, S., & Berger, A. (2008). Prospective lawyers’ rape stereotypes and schematic decision making about rape cases. *Psychology, Crime & Law, 14*(5), 461–479. <https://doi.org/10.1080/10683160801932380>
- Khokhlova, O., & Bohner, G. (2020). A Russian Version of the Acceptance of Modern Myths about Sexual Aggression Scale: Validation with a Female Online Sample. *Psychology in Russia: State of the Art, 13*(2), 121–139. <https://doi.org/10.11621/pir.2020.0209>
- Lucarini, A., Suitner, C., Brown, R., Craig, M. A., Knowles, E. D., & Salvador Casara, B. G. (2020). The #MeTooLate Effect: Victim blame and trust denial for sexual harassment not immediately reported. *Personality and Individual Differences, 167*, 110240. <https://doi.org/10.1016/j.paid.2020.110240>
- Lisak, D., & Ivan, C. (1995). Deficits in Intimacy and Empathy in Sexually Aggressive Men. *Journal of Interpersonal Violence, 10*(3), 296–308. <https://doi.org/10.1177/088626095010003004>
- Locke, B. D., & Mahalik, J. R. (2005). Examining Masculinity Norms, Problem Drinking, and Athletic Involvement as Predictors of Sexual Aggression in College Men. *Journal of Counseling Psychology, 52*(3), 279–283. <https://doi.org/10.1037/0022-0167.52.3.279>

- Maneesriwongul, W., & Dixon, J. K. (2004). Instrument translation process: A methods review. *Journal of Advanced Nursing*, 48(2), 175–186.
<https://doi.org/10.1111/j.1365-2648.2004.03185.x>
- McMahon, S., & Farmer, G. L. (2011). An Updated Measure for Assessing Subtle Rape Myths. *Social Work Research*, 35(2), 71–81. <https://doi.org/10.1093/swr/35.2.71>
- Megías, J. L., Romero-Sánchez, M., Durán, M., Moya, M., & Bohner, G. (2011). Spanish Validation of the Acceptance of Modern Myths about Sexual Aggression Scale (AMMSA). *The Spanish Journal of Psychology*, 14(2), 912–925.
https://doi.org/10.5209/rev_sjop.2011.v14.n2.37
- Murnen, S. K., Wright, C., & Kaluzny, G. (2002). If “boys will be boys,” then girls will be victims? A meta-analytic review of the research that relates masculine ideology to sexual aggression. *Sex roles*, 46(11), 359–375.
<https://doi.org/10.1023/A:1020488928736>
- Murphy, A., & Hine, B. (2018). Investigating the demographic and attitudinal predictors of rape myth acceptance in U.K. Police officers: developing an evidence-base for training and professional development. *Psychology, Crime & Law*, 25(1), 69–89.
<https://doi.org/10.1080/1068316x.2018.1503663>
- Navarro, J. C., & Tewksbury, R. (2017). Mythbusters: Examining Rape Myth Acceptance Among U.S. University Students. *Journal of Student Affairs Research and Practice*, 54(4), 343–356. <https://doi.org/10.1080/19496591.2017.1289094>
- Newins, A. R., Wilson, L. C., & White, S. W. (2018). Rape myth acceptance and rape acknowledgment: The mediating role of sexual refusal assertiveness. *Psychiatry Research*, 263, 15–21. <https://doi.org/10.1016/j.psychres.2018.02.029>
- Oppenheimer, D. M., Meyvis, T., & Davidenko, N. (2009). Instructional manipulation checks: Detecting satisficing to increase statistical power. *Journal of Experimental Social Psychology*, 45(4), 867–872. <https://doi.org/10.1016/j.jesp.2009.03.009>
- Park, A. (2017, December 6). #MeToo reaches 85 countries with 1.7M tweets. CBS News. <https://www.cbsnews.com/news/metoo-reaches-85-countries-with-1-7-million-tweets/>
- Payne, D. L., Lonsway, K. A., & Fitzgerald, L. F. (1999). Rape myth acceptance: Exploration of its structure and its measurement using the Illinois rape myth acceptance scale. *Journal of Research in Personality*, 33(1), 27–68.
<https://doi.org/10.1006/jrpe.1998.2238>
- Persson, S., Dhingra, K., & Grogan, S. (2018). Attributions of victim blame in stranger and acquaintance rape: A quantitative study. *Journal of Clinical Nursing*, 27(13–14), 2640–2649. <https://doi.org/10.1111/jocn.14351>
- Pratto, F., Sidanius, J., Stallworth, L. M., & Malle, B. F. (1994). Social dominance orientation: A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology*, 67(4), 741–763. <https://doi.org/10.1037/0022-3514.67.4.741>
- R Core Team (2022). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing, Vienna, Austria.
- Rape, Abuse & Incest National Network. (2021). *Perpetrators of Sexual Violence: Statistics*. <https://www.rainn.org/statistics/perpetrators-sexual-violence>
- Romero-Sánchez, M., Toro-García, V., Horvath, M. A. H., & Megías, J. L. (2016). More Than a Magazine: Exploring the Links Between Lads’ Mags, Rape Myth Acceptance, and Rape Proclivity. *Journal of Interpersonal Violence*, 32(4), 515–534.
<https://doi.org/10.1177/0886260515586366>
- Rosseel, Y. (2012). lavaan: An R Package for Structural Equation Modeling. *Journal of Statistical Software*, 48(2), 1–36. <https://doi.org/10.18637/jss.v048.i02>

- Suarez, E., & Gadalla, T. M. (2010). Stop Blaming the Victim: A Meta-Analysis on Rape Myths. *Journal of Interpersonal Violence*, 25(11), 2010–2035. <https://doi.org/10.1177/0886260509354503>
- Seto, M. C., Hermann, C. A., Kjellgren, C., Priebe, G., Svedin, C. G., & Långström, N. (2014). Viewing Child Pornography: Prevalence and Correlates in a Representative Community Sample of Young Swedish Men. *Archives of Sexual Behavior*, 44(1), 67–79. <https://doi.org/10.1007/s10508-013-0244-4>
- Sleath, E., & Woodhams, J. (2014). Expectations about victim and offender behaviour during stranger rape. *Psychology, Crime & Law*, 20(8), 798–820. <https://doi.org/10.1080/1068316x.2013.876500>
- Statistiska Centralbyrån. (2019). Befolkningens medålder efter kön och år. Retrieved from https://www.statistikdatabasen.scb.se/pxweb/sv/ssd/START__BE__BE0101__BE0101B/BefolkningMedelAlder/table/tableViewLayout1/
- Süssenbach, P., & Böhner, G. (2011). Acceptance of sexual aggression myths in a representative sample of German residents. *Aggressive Behavior*, 37(4), 374–385. <https://doi.org/10.1002/ab.20390>
- Swim, J. K., & Cohen, L. L. (1997). Overt, Covert, And Subtle Sexism. *Psychology of Women Quarterly*, 21(1), 103–118. <https://doi.org/10.1111/j.1471-6402.1997.tb00103.x>
- Swim, J. K., Aikin, K. J., Hall, W. S., & Hunter, B. A. (1995). Sexism and racism: Old-fashioned and modern prejudices. *Journal of Personality and Social Psychology*, 68(2), 199–214. <https://doi.org/10.1037/0022-3514.68.2.199>
- Temkin, J., Gray, J. M., & Barrett, J. (2016). Different Functions of Rape Myth Use in Court: Findings From a Trial Observation Study. *Feminist Criminology*, 13(2), 205–226. <https://doi.org/10.1177/1557085116661627>
- Thompson, M. P., Koss, M. P., Kingree, J. B., Goree, J., & Rice, J. (2010). A Prospective Mediation Model of Sexual Aggression Among College Men. *Journal of Interpersonal Violence*, 26(13), 2716–2734. <https://doi.org/10.1177/088626051038828>
- Venema, R. M. (2016). Making Judgments: How Blame Mediates the Influence of Rape Myth Acceptance in Police Response to Sexual Assault. *Journal of Interpersonal Violence*, 34(13), 2697–2722. <https://doi.org/10.1177/0886260516662437>
- Watson, L. C. (2016). *Exploring the psychometric properties of the Acceptance of Modern Myths about Sexual Aggression (AMMSA) Scale* [Doctoral Dissertation, Georgia Southern University]. Electronic Theses and Dissertations.
- Yapp, E. J., & Quayle, E. (2018). A systematic review of the association between rape myth acceptance and male-on-female sexual violence. *Aggression and Violent Behavior*, 41, 1–19. <https://doi.org/10.1016/j.avb.2018.05.002>

Appendix A

Acceptance of Modern Myths About Sexual Aggression (Gerger et al., 2007), Swedish translation

1. When it comes to sexual contacts, women expect men to take the lead/ När det gäller sexuellt umgänge, förväntar sig kvinnor att män ska vara den som tar initiativ.
2. Once a man and a woman have started "making out", a woman's misgivings against sex will automatically disappear / När en man och en kvinna har börjat "hångla", så försvinner per automatik kvinnans förbehåll till sex.
3. A lot of women strongly complain about sexual infringements for no real reason, just to appear emancipated/ Många kvinnor beklagar sig starkt över sexuella övergrepp utan faktiska skäl, endast för att framstå som frigjorda.
4. To get custody for their children, women often falsely accuse their ex-husband of a tendency toward sexual violence/För att få vårdnaden om sina barn, kommer kvinnor ofta med falska anklagelser mot sina ex-makar om att de har tendenser till sexuellt våld.
5. Interpreting harmless gestures as "sexual harassment" is a popular weapon in the battle of the sexes/Att tolka oskyldiga gester som "sexuella trakasserier" är ett populärt vapen i kampen mellan könen.
6. It is a biological necessity for men to release sexual pressure from time to time/Det är en biologisk nödvändighet för män att frigöra sexuellt tryck då och då.
7. After a rape, women nowadays receive ample support/Nuförtiden får kvinnor rikligt med stöd efter en våldtäkt.
8. Nowadays, a large proportion of rapes is partly caused by the depiction of sexuality in the media as this raises the sex drive of potential perpetrators/Nuförtiden så orsakas en stor andel av våldtäkter delvis av hur sexualitet skildras i media, eftersom detta höjer sexlusten bland potentiella förövare.
9. If a woman invites a man to her home for a cup of coffee after a night out this means that she wants to have sex/Om en kvinna bjuder in en man till sitt hem för att ta en kopp kaffe efter en utekväll så betyder det att hon vill ha sex.
10. As long as they don't go too far, suggestive remarks and allusions simply tell a woman that she is attractive/Bara de inte går för långt, så talar suggestiva kommentarer och anspelningar endast om för en kvinna att hon är attraktiv.
11. Any woman who is careless enough to walk through "dark alleys" at night is partly to be blamed if she is raped/En kvinna som är oförsiktig nog att gå genom "mörka gränder" på natten bär delvis skulden ifall hon blir våldtagen.
12. When a woman starts a relationship with a man, she must be aware that the man will assert his right to have sex/När en kvinna inleder ett förhållande med en man, så måste hon vara medveten om att mannen kommer att hävda sin rätt att ha sex.
13. Most women prefer to be praised for their looks rather than their intelligence/De flesta kvinnor föredrar att få beröm för sitt utseende snarare än sin intelligens.
14. Because the fascination caused by sex is disproportionately large, our society's sensitivity to crimes in this area is disproportionate as well/Eftersom sex orsakar en oproportionerligt stor fascination så är vårt samhälles känslighet för brott inom detta område också oproportionerligt stor.
15. Women like to play coy. This does not mean that they do not want sex/Kvinnor gillar att spela svårfångade. Detta betyder inte att de inte vill ha sex.
16. Many women tend to exaggerate the problem of male violence/Många kvinnor har en tendens att överdriva problemet med manligt våld.

17. When a man urges his female partner to have sex, this cannot be called rape/ När en man uppmanar sin kvinnliga partner att ha sex, så kan det inte kallas våldtäkt.
18. When a single woman invites a single man to her flat she signals that she is not averse to having sex/När en ensamstående kvinna bjuder in en ensamstående man till sin lägenhet så antyder detta att hon inte är ovillig att ha sex.
19. When politicians deal with the topic of rape, they do so mainly because this topic is likely to attract the attention of the media/När politiker hanterar ämnet våldtäkt, så gör de så mest för att detta ämne sannolikt kommer dra åt sig medias uppmärksamhet.
20. When defining "marital rape", there is no clear-cut distinction between normal conjugal intercourse and rape/När man definierar "våldtäkt inom äktenskapet" så finns det ingen tydlig skillnad mellan normalt äktenskapligt samlag och våldtäkt.
21. A man's sexuality functions like a steam boiler—when the pressure gets too high, he has to "let off steam"/En mans sexualitet fungerar som en ångkokare – när trycket blir för högt så måste han "lätta på trycket".
22. Women often accuse their husbands of marital rape just to retaliate for a failed relationship/Kvinnor anklagar ofta sina makar för våldtäkt inom äktenskapet endast för att hämnas för ett misslyckat förhållande.
23. The discussion about sexual harassment on the job has mainly resulted in many harmless behaviors being misinterpreted as harassment/Diskussionen kring sexuella trakasserier på arbetsplatsen har främst fått till följd att många oskyldiga beteenden feltolkas som trakasserier.
24. In dating situations the general expectation is that the woman "hits the brakes" and the man "pushes ahead"/I dejtingsituationer förväntas det generellt att kvinnan "bromsar" och mannen "trycker på".
25. Although the victims of armed robbery have to fear for their lives, they receive far less psychological support than do rape victims/Trots att offer för väpnat rån tvingas frukta för sina liv, så får de betydligt mindre psykologiskt stöd än våldtäktsoffer.
26. Alcohol is often the culprit when a man rapes a woman/Alkohol är ofta den skyldige när en man våldtar en kvinna.
27. Many women tend to misinterpret a well-meant gesture as a "sexual assault"/Många kvinnor har en tendens att feltolka en välmenad gest som ett "sexuellt övergrepp".
28. Nowadays, the victims of sexual violence receive sufficient help in the form of women's shelters, therapy offers, and support groups/Idag får offren för sexuellt våld tillräckligt med hjälp i form av kvinnojourer, erbjudande om terapi, och stödgrupper.
29. Instead of worrying about alleged victims of sexual violence society should rather attend to more urgent problems, such as environmental destruction/Istället för att oroa sig över påstådda offer för sexuellt våld så borde samhället snarare ta hand om mer brådskande problem, såsom miljöförstöring.
30. Nowadays, men who really sexually assault women are punished justly/Män som faktiskt har sexuellt attackerat kvinnor straffas numera på ett rättvist sätt.