A Russian Version of the Acceptance of Modern Myths about Sexual Aggression Scale: Validation with a Female Online Sample

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**Background.** Rape myths are usually described as a widely-accepted set of false beliefs and attitudes about victims and perpetrators of sexual assault. These beliefs serve to deny, downplay, or justify sexual violence that men commit against women. The Acceptance of Modern Myths about Sexual Aggression (AMMSA) scale assesses those stereotypical beliefs about sexual aggression in a more subtle way than traditional measurements of rape myths, which often use rather blatant wording.

**Objective.** To develop a Russian version of the sixteen-item AMMSA scale.

**Design.** Our design was non-experimental. Participants were recruited online. In total, data of 270 Russian female participants and 131 German female participants were analyzed using exploratory and confirmatory factor analysis. Convergent and discriminant validity were assessed using correlational analyses with other constructs that are believed to be related to AMMSA to different degrees (hostile sexism, benevolent sexism, traditional gender role preferences, and impression management).

**Results.** It was found that the Russian AMMSA, just like the German AMMSA, was unidimensional, normally distributed, had high internal consistency, and showed good construct validity.

**Conclusion.** The validation of a Russian version of the AMMSA forms an important first step for studying beliefs about sexual aggression in Russian society. The Russian AMMSA scale is a valid and reliable instrument for measuring modern myths about sexual aggression. Future studies are needed to test whether there are gender differences in the Russian population.

**Keywords:** AMMSA; rape myths; rape myth acceptance; scale construction; sexism; violence against women.
Introduction

Violence against women is very prevalent in today’s society. The World Health Organization (2016) reports that 35% of women worldwide have experienced physical and/or sexual violence in their lifetimes. Thus, women’s fear of being raped is very widespread, and it not only restricts their freedom, but also decreases their quality of life (Mirrlees-Black & Allen, 1998). The negative impact of rape on women’s mental health has been the subject of many studies, which show rape as a severe trauma that may lead to post-traumatic stress disorder (see Campbell, Dworkin, & Cabral, 2009; Clum, Calhoun, & Kimerling, 2000; Frazier, Conlon, & Glaser, 2001); depression (Acierno et al., 2002; Clum et al., 2000); fear and anxiety (Siegel, Golding, Stein, Burnam, & Sorenson, 1990; Ullman & Siegel, 1990); and substance abuse (Ullman, Townsend, Filipas, & Starzynski, 2007).

Another challenge that women face is a non-supportive social environment when reporting a rape. Social attitudes that blame the victim, and an overall non-supportive social network, may be important factors that discourage victims from reporting their experiences. Some research findings even indicate post-traumatic disorders arising as a result of a non-supportive reaction (Yamawaki, Darby, & Queiroz, 2007).

An influential conceptualization of the sociocultural context of negative reactions toward rape victims is the concept of rape myths, which was first defined and introduced into social psychology by Martha Burt (1980). According to Burt, rape mythology may reinforce a culture of rape by defining rape too narrowly, thus excluding the experiences of many women, and downplaying the severity and consequences of rape. Burt also introduced one of the first questionnaires measuring rape myth acceptance (RMA).

Over the years, rape myth acceptance has been studied in relation to its cognitive, affective, and behavioral effects (see Bohner, Eyssel, Pina, Siebler, & Viki, 2009). For example, numerous studies have shown that RMA results in disbelief of victims’ statements (e.g., Bohner & Schapansky, 2018), victim blaming, and lenient judgments of perpetrators in specific rape cases (e.g., Eyssel & Bohner, 2011; Hockett, Saucier, & Badke, 2016; Krahé, 1991; Pollard, 1992; Peterson & Muehlenhard, 2004; Ryan, 2011).

Studies of gaze behavior have also shown that people high in RMA quickly detect stereotypical cues linked to victim blaming (Süssenbach, Bohner, & Eyssel, 2012) and look less at the alleged perpetrator than at the victim when assigning guilt and blame (Süssenbach, Eyssel, Rees, & Bohner, 2017). To give a final example, men who are high in RMA, or have been exposed to high-RMA responses of others, show greater rape proclivity (Bohner, Pina, Viki, & Siebler, 2010; Bohner, Siebler, & Schmelcher, 2006). Hence, understanding the role of rape myths and their impact on victims and society is extremely important for victims’ well-being and recovery (Moor, 2007).

In this article, we focus on RMA in Russian respondents. As there is no established RMA measure available in Russian, we developed such an instrument and then validated it by examining its intercorrelations with various scales. We did this in comparison with an established German questionnaire by studying both Russian and German samples. Before we present our study, we first sketch developments in the definitions and measurement of RMA over the last four decades.
**Rape Mythology**

One of the first definitions of rape myths was given by Burt (1980), who described them as “prejudicial, stereotyped, or false beliefs about rape, rape victims, and rapists” (p. 217). Burt also presented examples of rape myths, such as “she asked for it” or “no harm was done” (see also Burt, 1991). Later this concept was extended by Lonsway and Fitzgerald (1994), who defined rape myths as “attitudes and beliefs that are generally false, but are widely and persistently held, and that deny and justify male sexual aggression against women” (p.134). The definition of rape myths was specified further as “descriptive or prescriptive beliefs about rape (i.e., about its causes, context, consequences, perpetrators, victims, and their interaction) that serve to deny, downplay, or justify sexual violence that men commit against women” (Bohner, 1998, p. 14).

The most common rape myths discussed in the literature include: 1) disbelief of rape claims: “Most charges of rape are unfounded”; 2) blaming the victim: “Women often provoke rape through their appearance and behavior”; 3) belief that only certain types of women are raped: “Only bad girls get raped”; 4) exoneration of the perpetrator: “Rapists are sex-starved, insane, or both”; 5) denial of marital rape: “Husbands cannot rape their wives”; and 6) denial of any injury: “Women enjoy rape” (Bohner et al., 1998; Bohner et al., 2009; Burt, 1980; Edwards, Turchik, Dardis, Reynolds, & Gidycz, 2011; Lonsway & Fitzgerald, 1995; Payne, Lonsway, & Fitzgerald, 1999).

Rape myths affect not only how our culture stereotypically defines rape – i.e., only acknowledging a narrow set of atypical assaults, such as when a stranger attacks a woman outdoors and uses extreme physical violence, as “real rape” – but also how rape victims see themselves (Krahé, Bieneck, & Scheinberger-Olwig, 2007; Littleton & Axsom, 2003; Littleton, Breitkopf, & Berenson, 2007; Peterson & Muehlenhard, 2004). One of the possible consequences of holding the “real rape script” is rape victims’ conceptualization of their own experience.

Rape victims may be divided into two groups: those who acknowledge their experience as rape, and those who do not because their experience does not conform to the “real rape script” that they endorse (Bondurant, 2001; Kahn, Mathie, & Torgler, 1994). Rape scripts also present an “ideal victim” image, which describes a non-intoxicated “respectable” victim who had no prior contact with the perpetrator (Hockett et al., 2016). Hence, women who do not fulfill this stereotype are often not seen as rape victims and may not even identify themselves as such. This belief makes women more vulnerable (Turchik, Probst, Irvin, Chau, & Gidycz, 2010) because they might miss clues in situations that do not resemble the “real rape script,” and thus be more likely to be victimized.

**Measurement of Rape Myth Acceptance**

Over the years, many different instruments for measuring RMA have been developed (for reviews, see Bohner, 1998; Lonsway & Fitzgerald, 1994). However, in recent years the use of these scales has consistently presented one common problem: Respondents’ answers are often close to the low point of the response scale, which positively skews the RMA distribution and produces low RMA mean scores (Bohner, Siebler, & Schmelcher, 2006; Gerger, Kley, Bohner, & Siebler, 2007).
Therefore, these statistics do not necessarily reveal a low level of RMA in the studied population, but might instead reflect impression management (based on an increased awareness of politically correct answers), as well as historical changes in the content of rape myths (Gerger et al., 2007). Thus, rape myths today may be both more subtle and expressed less willingly than in the past.

In a similar way, it has been suggested that sexism, along with other prejudices such as racist attitudes, has currently become more covert and is no longer as direct as its “old-fashioned” expression (Swim, Aikin, Hall, & Hunter, 2005). Thus, Swim and colleagues (2005) proposed the concept of modern sexism, which is characterized by the denial that sex discrimination still exists, and the belief that government and news media are too concerned about attitudes toward women.

Following the lead of modern sexism research and importing its ideas into the realm of rape myth assessment, Gerger and colleagues (2007) developed a new RMA scale. Their aim was to measure contemporary “modern” myths of sexual aggression and to use more subtle wording than traditional RMA scales, thus eliminating the problem of skewed distributions and reflecting respondents’ current beliefs more accurately than the classic scales do. The new instrument was named the Acceptance of Modern Myths about Sexual Aggression (AMMSA) Scale.

Its contents include the following categories: 1) denial of the scope of the problem (e.g., “Many women tend to misinterpret a well-meant gesture as a ‘sexual assault’”); 2) antagonism toward victims’ demands (e.g., “Although the victims of armed robbery have to fear for their lives, they receive far less psychological support than do rape victims’); 3) lack of support for policies designed to help alleviate the effects of sexual violence (e.g., “Nowadays, the victims of sexual violence receive sufficient help in the form of women’s shelters, therapy offers, and support groups”); 4) beliefs that male coercion forms a natural part of sexual relationships (e.g., “When a woman starts a relationship with a man, she must be aware that the man will assert his right to have sex”); and 5) beliefs that exonerate male perpetrators by blaming the victim or the circumstances (e.g., “Alcohol is often the culprit when a man rapes a woman”).

The AMMSA scale comprises 30 items. In a host of studies, it has been shown to be essentially unidimensional and to yield symmetrical, close-to-normal distributions; it has also proved to be highly reliable (Cronbach’s alphas ranged from .90 to .95) and to have construct validity (e.g., Eyssel & Bohner, 2011; Gerger et al., 2007; Milesi, Süßnenbach, Bohner, & Megías, 2020; Süßnenbach et al., 2012). For example, AMMSA correlated not only with similar constructs, such as hostile sexism (HS) and benevolent sexism (BS) (Glick & Fiske, 1996), but also with a traditional RMA scale (Payne et al., 1999). AMMSA scores also correlate with the “belief in a just world” (Lerner, 1980); lack of empathy (Bohner, 1998; Schmitt, 1982); right-wing authoritarianism (Altemeyer, 1988; Canto, Perles, & San Martín, 2014); and social dominance orientation (Pratto, Sidanius, Stallworth, & Malle, 1994). The scale was originally developed in parallel in German and English; later, Spanish (Megías et. al, 2007), Colombian (Romero-Sánchez, Megías, Carretero-Dios, & Rincón Neira, 2013), French (Helmke, Kobusch, Rees, Meyer, & Bohner, 2014), Greek (Hantzi, Lampridis, Tsantila, & Bohner, 2016), Chilean (Camplá, Novo, Sanmarco, & Arce, 2019), and Italian versions (Milesi et al., 2020) were developed and validated.
Objective

Validation of the Russian AMMSA Scale

There are no comparable scales available in Russian to date. Therefore, the validation of a Russian version of the AMMSA scale is an important first step for studying beliefs about sexual aggression in Russian society. The main aim of this study was to validate a 16-item short version of the AMMSA scale in the Russian language. To do so, we assessed the Russian scale’s reliability, and convergent and discriminant validity in comparison with a German short version, by studying parallel samples of Russian and German students.

As external validation criteria we used the Ambivalent Sexism Inventory (ASI) with its subscales of hostile sexism and benevolent sexism (Glick & Fiske, 1996; German version: Eckes & Six-Materna, 1999); the Gender Role Preference (GRP) scale (Becker & Wagner, 2009); and the Impression Management (IM) scale of the “Balanced Inventory of Desirable Responding” (Paulhus, 1998; German version by Musch, Brockhaus, & Bröder, 2002).

Hostile and benevolent sexism are two separate but interrelated components of ambivalent sexism (see Glick et al., 2000). Whereas hostile sexism reflects the typical antipathy toward women that fits classical definitions of prejudice, benevolent sexism comprises sexist beliefs that are subjectively positive and affectionate toward women (Glick & Fiske, 1996). Significant correlations of hostile sexism and classic RMA scales have been demonstrated (Chapleau, Oswald, & Russell, 2007; Glick & Fiske, 1996); for the AMMSA scale, significant associations with both hostile and benevolent sexism were found (Gerger et al., 2007; Hantzi et al., 2016; Megías et al, 2007), with the former being stronger than the latter.

The GRP measures women’s tendencies to share specific gender-in-group values that may be either progressive or traditional (Becker & Wagner, 2009). It was shown that women who were highly identified with more traditional gender roles endorsed sexist beliefs, whereas women who were highly identified with progressive gender roles did not. Thus, we predicted that AMMSA scores would be positively correlated with the GRP traditional values scale.

The IM scale indicates to what extent a person tries to make a good impression on others. IM was demonstrated to be uncorrelated with the AMMSA measurements in previous research (Gerger et al., 2007), and a correlation close to zero would also reflect discriminant validity of the Russian version.

Summary of Research Aims and Hypotheses

The main aim of this study was to validate the Russian version of the AMMSA scale, assessing its psychometric properties in comparison with a German version of AMMSA. In line with previous research (Gerger et al., 2007; Hantzi et al., 2016), we expected to find: 1) a one-factor solution and high internal consistency of the AMMSA scale; 2) a symmetrical and fairly normal distribution of AMMSA scores; 3) a strong positive correlation of AMMSA measurements with HS, which is a conceptually similar construct; 4) moderately positive correlations of AMMSA scores with BS and GRP, which are both related to the AMMSA construct, but more distinct from it conceptually; and 5) AMMSA to be uncorrelated with IM. These correlation patterns were expected to be the same for the Russian and German versions of the AMMSA scale.
Method

Participants

Recruitment was restricted to female participants, because we also tested several experimental hypotheses regarding AMMSA: specifically, the effects of exposure to rape-related information moderated by RMA in women coming from different cultures, and the role of GRP in the self-esteem – related function of RMA. We also wanted to identify subgroups of women according to their RMA and to test this difference by considering such aspects as culture and GRP. These issues will not be further addressed in the present paper.

Table 1

Final Sample Characteristics

<table>
<thead>
<tr>
<th></th>
<th>German students</th>
<th>Russian students</th>
<th>Russian non-students</th>
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<tbody>
<tr>
<td>N total</td>
<td>131</td>
<td>120</td>
<td>150</td>
</tr>
<tr>
<td>Mean age</td>
<td>22.93</td>
<td>25.79</td>
<td>31.14</td>
</tr>
<tr>
<td>SD of age</td>
<td>3.73</td>
<td>6.05</td>
<td>6.55</td>
</tr>
<tr>
<td>Obtained Educational level (in %)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary high school (Realschule) (.8%)</td>
<td>Secondary high school (35.5%)</td>
<td>Secondary high school (1.3%)</td>
<td></td>
</tr>
<tr>
<td>Advanced technical college (Fachhochschule) (6.9%)</td>
<td>Specialized secondary education (.8%)</td>
<td>Specialized secondary education (.7%)</td>
<td></td>
</tr>
<tr>
<td>General qualification for university entrance (Abitur) (61.8%)</td>
<td>Bachelor (27.5%)</td>
<td>Bachelor (13.3%)</td>
<td></td>
</tr>
<tr>
<td>Master's degree (2.3%)</td>
<td>Master's degree (12.4%)</td>
<td>Master's degree (17.3%)</td>
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<tr>
<td>Diploma (37.3%)</td>
<td>Diploma (58.0%)</td>
<td></td>
<td></td>
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<tr>
<td>PhD (3.3%)</td>
<td>PhD (8%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (.7%)</td>
<td>Other (.5%)</td>
<td>Other (1.4%)</td>
<td></td>
</tr>
<tr>
<td>Missing (1.7%)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Relationship status (in %)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single (47.3 %)</td>
<td>Single (30.8%)</td>
<td>Single (21.3%)</td>
<td></td>
</tr>
<tr>
<td>Live together with a partner (31.3%)</td>
<td>Live together with a partner (20.0%)</td>
<td>Live together with a partner (22.7%)</td>
<td></td>
</tr>
<tr>
<td>Married (3.8%)</td>
<td>Married (22.5%)</td>
<td>Married (38.0%)</td>
<td></td>
</tr>
<tr>
<td>Divorced (.0%)</td>
<td>Divorced (8.3%)</td>
<td>Divorced (7.3%)</td>
<td></td>
</tr>
<tr>
<td>Other (17.6%)</td>
<td>Other (18.3%)</td>
<td>Other (10.7%)</td>
<td></td>
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</tbody>
</table>
Our choice of participants seemed to be appropriate for the AMMSA scale validation as well, insofar as the German-speaking and Russian-speaking samples would be comparable in terms of education and socioeconomic background. Also, although gender might be an important factor to include in future studies, and previous research suggests that there are specific gender differences in regard to victim perception (Hockett, Smith, Klausing & Saucier, 2016) and even in RMA itself (Lonsway & Fitzgerald, 1994), these studies usually refer to more traditional RMA scales, which use stronger language than the less blatant AMMSA wording. Regarding the instrument used in this study (AMMSA), a study with a representative sample of Germans had revealed no gender differences in RMA perception when using a nine-item version of AMMSA (Süssenbach & Bohner, 2011).

Participants were recruited online through solicitations targeting different German and Russian Facebook student groups, e-mail lists from different universities, and open female blogs. In order to stimulate participation, the participants were entered in a cash lottery. The research followed applicable ethical guidelines: Participants gave their informed consent, and were informed about their right to withdraw at any time; upon completion of the questionnaire, participants were given a final opportunity to withdraw their data by clicking a corresponding response button. The study was approved by the Ethics Committee of Bielefeld University (Statement EUB 2015-117).

In total, 383 people completed the Russian survey, and 173 people completed the German survey. After exclusion of those who had completed less than 60% of the items, had not read the text vignettes used in the experimental part of the study (not reported here), or were not heterosexual (this was important for some of the ASI and GRP items to be meaningful), we formed three subsamples for the validation study: a sample of 120 Russian students (15 of them were psychology students), a comparable sample of 131 German students (41 psychology students), and a sample of 150 Russian non-students. The characteristics of the three subsamples are presented in Table 1.

**Procedure**

We used a short version of the AMMSA scale (Gerger et al., 2007) in order to generate a brief and economic instrument (see Appendix 2 for an English version). This particular 16-item version of AMMSA had been repeatedly used in previous studies with German samples (Bohner & Schapansky, 2018; Eyssel & Bohner, 2011; Eyssel, Bohner, & Siebler, 2006). In those studies, its reliability was almost as good as that of the full 30-item scale, reaching Cronbach’s alphas well above .80. Also, the 16-item scale is essentially unidimensional, and its items have a higher average item-to-total correlation (.533) than those of the full AMMSA scale (.508; values based on Gerger et al., 2007, Table A1).

The short version of the scale consists of 16 items (Eyssel & Bohner, 2011); e.g.: “In order to get custody for their children, women often falsely accuse their ex-husbands of tendency toward sexual violence;” “When a man urges his female partner to have sex, this cannot be called rape.” Participants were asked to indicate
how much they agreed with each item on a 7-point scale ranging from 1 (totally disagree) to 7 (totally agree). All the items were carefully translated from German into Russian by one bilingual person, and then back-translated into German by another bilingual person. There were few disagreements with regard to meaning in the two versions. These disagreements were discussed, and all necessary changes were included in the final Russian version that was used in the study. The German and Russian wordings of the items, item-to-total correlations, and item means are presented in Appendix 1.

In order to test the convergent and discriminant validity of AMMSA, we additionally administered the Ambivalent Sexism Inventory (ASI) (Glick & Fiske, 1996; German version: Eckes & Six-Materna, 1999), which consists of the subscales hostile sexism (HS – 11 items) and benevolent sexism (BS – 11 items); the Gender Role Preference scale (GRP– eight items where high scores indicate a preference for traditional gender roles and low scores indicate a preference for progressive gender roles) (Becker & Wagner, 2009); and the German Impression Management Scale (IM – 10 items) (Musch et al., 2002) from the Balanced Inventory of Desirable Responding (Paulhus, 1998). For the Russian versions we used our own Russian adaptations of these scales.

Item examples of the validation scales, along with coefficients of internal consistency, are provided in Table 2. Cronbach’s alpha was satisfactory for all scales, so scoring was done for each scale by averaging across all of its items, after reverse-scoring where appropriate.

Table 2
Means, Standard Deviations, Content and Reliability of Scales Used for Convergent and Discriminant Validation

<table>
<thead>
<tr>
<th>Scale (No. of items)</th>
<th>Item Example</th>
<th>German students</th>
<th>Russian students</th>
<th>Russian non-students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Cronbach's alpha M SD</td>
<td>Cronbach's alpha M SD</td>
<td>Cronbach's alpha M SD</td>
</tr>
<tr>
<td>HS (11)</td>
<td>Many women are actually seeking special favors, such as hiring policies that favor them over men, under the guise of asking for “equality”.</td>
<td>.92 3.43 1.22</td>
<td>.89 3.54 1.25</td>
<td>.91 3.08 1.24</td>
</tr>
<tr>
<td>BS (11)</td>
<td>Many women have a quality of purity that few men possess.</td>
<td>.88 3.71 1.09</td>
<td>.80 3.70 1.02</td>
<td>.83 3.40 1.02</td>
</tr>
<tr>
<td>GRP (8)</td>
<td>When I date a man, I would feel unpleasant if I had to pay.</td>
<td>.63 2.51 .79</td>
<td>.77 3.12 1.14</td>
<td>.81 2.74 1.12</td>
</tr>
<tr>
<td>IM (10)</td>
<td>I sometimes tell lies if I have to.</td>
<td>.59 4.34 .62</td>
<td>.62 4.50 .85</td>
<td>.62 3.27 .82</td>
</tr>
</tbody>
</table>

Note: HS = hostile sexism; BS = benevolent sexism; GRP = gender role preferences; IM = impression management
Results

Exploratory Factor analysis
As previous research had suggested a one-factor solution for the AMMSA scale, we conducted an exploratory factor analysis to examine if the scale’s dimensionality could be replicated in the different cultural context represented by the Russian participants. For the factor analysis we used the answers of the Russian students and nonstudent samples combined ($N = 270$). The KMO measure of sampling adequacy (KMO = .92) and Bartlett’s test of sphericity ($\chi^2 (120) = 2101.26, p < .001$) both indicated that it was appropriate to apply factor analysis to this set of data.

Maximum-likelihood extraction and promax rotation were used in this analysis. The analysis yielded three factors with eigenvalues greater than one, explaining 60.97% of the variance. The eigenvalues of these factors were: 6.96, 1.78, and 1.01. The eigenvalues showed a sharp decline after the first component. Thus we could adopt a one-factor solution for the Russian AMMSA scale, which was very similar to those of previous AMMSA versions in English, German, Spanish, and Greek (Gerger et al., 2007; Megías et al., 2007; Hantzi et al., 2016). Cronbach’s alpha for the Russian adaptation of the AMMSA scale was .86 (.90 for the students and .89 for the non-student samples) and thus quite satisfactory.

We also conducted a factor analysis for the German sample in order to compare the results (KMO = .83, Bartlett’s test of sphericity: $\chi^2 (120) = 585.07, p < .001$). This yielded four factors with the following eigenvalues: 5.26, 1.34, 1.20, and 1.16. Again, the sharp decline of eigenvalues after the first factor suggests a one-factor model for the German AMMSA scale, which replicates previous research (Gerger et al., 2007).

Confirmatory Factor analysis
Confirmatory factor analysis (CFT) was performed to test a one-factor model (SPSS AMOS 21.0). The CFT was based on an asymptotic covariance matrix. Next, to evaluate the model’s goodness of fit, multiple approximations were used. The following indices were evaluated: the root mean square error of approximation (RMSEA); the adjusted goodness of fit index (AGFI); and the non-normal fit index (NNFI) (Browne & Cudeck, 1993). For the Russian sample these measures indicated that the one-factor model had a good fit ($\chi^2 (104) = 351.396, p < .001$, RMSEA = .09, AGFI = .91, NNFI = .94).

Means
Comparisons of the AMMSA means between the subsamples showed that Russian students ($M = 3.41, SD = 1.10$) scored higher than both Russian non-students ($M = 3.05, SD = 0.99$), $F(1, 268) = 8.72, p = .002$, and German students ($M = 3.09, SD = 0.86$), $F(1,249) = 6.88, p = .009$. The latter two groups did not differ from each other, $F (1,279) = 0.109, p = .742$.

Distributions
Sample distributions for the German sample and the combined Russian sample are displayed in Figure 1. We can see that the AMMSA scale distribution looks close to
a normal distribution for both language versions. This was confirmed by the non-significant results of Shapiro-Wilks tests. Both German and Russian AMMSA distributions had a slightly positive skewness of 0.17 (SE = 0.21) for the German version, and of 0.29 (SE = 0.20) for the Russian version; and a kurtosis of -0.45 (SE = 0.42) and of -0.47 (SE = 0.39) for German and Russian versions, respectively. These results indicate that the distributions are fairly symmetrical and not too wide.

Figure 1. Distributions of the German and Russian versions of the Acceptance of Modern Myths About Sexual Aggression (AMMSA) scale.

Convergent and discriminant validity
The correlations of AMMSA and other measures used for convergent and discriminant validation are reported in Table 3.

Table 3
Correlations of AMMSA With Related and Unrelated Constructs

<table>
<thead>
<tr>
<th></th>
<th>German version</th>
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<th>Russian version</th>
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<tbody>
<tr>
<td></td>
<td>Students</td>
<td></td>
<td>Students</td>
<td></td>
<td>Non-Students</td>
</tr>
<tr>
<td>HS</td>
<td>.77</td>
<td>.83</td>
<td>.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>131</td>
<td>120</td>
<td>150</td>
<td></td>
<td></td>
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<tr>
<td>BS</td>
<td>.46</td>
<td>.44</td>
<td>.42</td>
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<td>N</td>
<td>131</td>
<td>120</td>
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<td>GRP</td>
<td>.40</td>
<td>.62</td>
<td>.61</td>
<td></td>
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<tr>
<td>N</td>
<td>131</td>
<td>120</td>
<td>150</td>
<td></td>
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<tr>
<td>IM</td>
<td>.09 ns</td>
<td>.03 ns</td>
<td>.01 ns</td>
<td></td>
<td></td>
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<tr>
<td>N</td>
<td>131</td>
<td>120</td>
<td>150</td>
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</tbody>
</table>

Note. HS = hostile sexism; BS = benevolent sexism; GRP = gender role preferences; IM = impression management ns not significant. All other correlations displayed are significant at \( p < .01 \).

As predicted, the Russian AMMSA scores were highly correlated with HS for both the student (\( r = .83, p < .01 \)) and non-student samples (\( r = .84, p < .01 \)),
which indicates the scale's convergent validity. We had also predicted that AMMSA scores would show moderately high correlations with BS and traditional GRP, and the analyses confirmed this. For the student sample, the correlations were: $r = .44 \ (p < .01)$ with BS and $r = .62 \ (p < .01)$ with GRP. For the non-student sample, the correlations between AMMSA and these scales were: $r = .42 \ (p < .01)$ with BS and $r = .61 \ (p < .01)$ with GRP. Finally, AMMSA scores were uncorrelated with impression management scores for both Russian samples: $r = .03$ for the student participants, and $r = -.01$ for the non-student participants (all n.s.).

We also tested the same relationships for the German version. As can be seen in Table 3, the correlation patterns between all measures and AMMSA results in the German and the Russian samples are highly similar: a strong positive correlation between AMMSA and HS; a moderately high correlation between AMMSA and BS as well as AMMSA and GRP; and a correlation close to zero with IM.

**Discussion**

The main aim of our study was to validate the Russian version of the 16-item AMMSA scale. As predicted, the 16-item Russian AMMSA scale has a one-factor solution, shows a symmetrical close-to-normal distribution, and has both a strong internal consistency and good convergent and discriminant validity. Convergent validity was established via a high correlation with hostile sexism, which is a conceptually similar construct, and moderately positive correlations with related, but more distinct constructs – benevolent sexism and traditional gender role preferences. The finding about AMMSA scores being uncorrelated with impression management provides evidence for the AMMSA scale's discriminant validity.

When looking at the scale's means, we found meaningful differences between the Russian students, who showed the highest scores, and the two other subsamples, which did not differ from one another. The finding that Russian students score higher than German students might be explained by the fact that Russian society, generally, may be more traditional and conservative regarding gender issues than German society. Indeed, the United Nations' gender inequality index is much higher in Russia (.271) than in Germany (.066) (United Nations Development Programme, 2016).

Interestingly, however, the Russian nonstudent sample had lower scores than the Russian student sample, and almost identical scores as the German student sample, although being about nine years older. These results are somewhat similar to findings by Süssenbach and Bohner (2011), who found a negative relationship between AMMSA scores and age ($r = -.47$) among younger German participants (up to 30 years of age), although the overall relationship between age and AMMSA in their representative sample was U-shaped. Thus, there might be interesting generational differences in the endorsement of modern sexual aggression myths within Russian society as well. It would be highly useful to test different age groups more systematically in follow-up research.

When it comes to the correlation patterns, hardly any differences were observed between the Russian and German samples. If anything, there was a higher correlation between the AMMSA and GRP results in the Russian samples. A plausible reason for this might lie in the rather blatant wording of the GRP scale. German
women might be more aware of the sexism implied by these statements, given the societal differences in gender equality mentioned above.

**Conclusion**

All of our hypotheses were clearly supported, suggesting that the Russian AMMSA scale is a reliable and valid instrument for measuring modern myths about sexual aggression. Thus, it can be useful for both basic and applied research.

**Limitations**

A possible limitation of our study lies in the fact that we did not include male participants. Although no strong gender differences were found in previous research on AMMSA (Gerger et al., 2007; Süssenbach & Bohner, 2011), it may be the case that such differences would emerge in Russian society. Thus, we recommend that future studies test whether the Russian AMMSA scale is valid for male respondents as well, and whether there are gender differences in the Russian population.

**References**


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*First published online June 25, 2020*
### Appendix 1. (Russian and German AMMSA scales)

<table>
<thead>
<tr>
<th>Items of the AMMSA Scale (German/ Russian)</th>
<th>German students</th>
<th>Russian students</th>
<th>Russian non-students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Item-Total-Correlations M SD</td>
<td>Item-Total-Correlations M SD</td>
<td>Item-Total-Correlations M SD</td>
</tr>
<tr>
<td>1. Um das Sorgerecht für die Kinder zu bekommen, unterstellen Frauen ihrem Ex-Ehemann gerne zu Unrecht einen Hang zu sexueller Gewalt / Для того, чтобы получить родительскую опеку над детьми, женщины часто ложно обвиняют бывших мужей в том, что они имели склонность к сексуальному насилию.</td>
<td><strong>.26</strong> 2.84 1.44</td>
<td><strong>.44</strong> 2.99 1.70</td>
<td><strong>.55</strong> 2.60 1.55</td>
</tr>
<tr>
<td>2. Nach einer Vergewaltigung erhalten Frauen heutzutage Unterstützung von allen Seiten / После изнасилования женщины в наше время получают значительную поддержку.</td>
<td><strong>.32</strong> 4.00 1.43</td>
<td><strong>.65</strong> 2.47 1.47</td>
<td><strong>.62</strong> 1.81 1.07</td>
</tr>
<tr>
<td>3. Ein Großteil der Vergewaltigungen wird heutzutage durch die Darstellung von Sexualität in den Medien mitverursacht, da diese den Sexualtrieb potentieller Täter weckt / В настоящее время большая часть изнасилований частично обусловлена использованием сексуальности в медиа, так как это повышает сексуальное влечение потенциальных преступников.</td>
<td><strong>.37</strong> 3.57 1.62</td>
<td><strong>.11</strong> 3.89 1.84</td>
<td><strong>.28</strong> 3.74 1.84</td>
</tr>
<tr>
<td>4. Wenn eine Frau mit einem Mann eine Beziehung eingeht, muss sie sich darüber im Klaren sein, dass der Mann sein Recht auf Sex einfordern wird / Когда женщина начинает отношения с мужчиной, она должна осознавать, что мужчина будет предъявлять свои права на сексуальные отношения.</td>
<td><strong>.55</strong> 2.04 1.56</td>
<td><strong>.73</strong> 4.12 2.10</td>
<td><strong>.49</strong> 3.78 1.89</td>
</tr>
<tr>
<td>5. Die meisten Frauen möchten lieber für ihr Aussehen gelobt werden als für ihre Intelligenz / Большинство женщин предпочитают, чтобы их хвалили за внешность, а не за их интеллект.</td>
<td><strong>.38</strong> 3.15 1.66</td>
<td><strong>.28</strong> 3.44 1.73</td>
<td><strong>.39</strong> 3.79 1.65</td>
</tr>
</tbody>
</table>

(continued on next page)
<table>
<thead>
<tr>
<th>Items of the AMMSA Scale (continued)</th>
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<th>Russian students</th>
<th>Russian non-students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Item-Total-</td>
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<td>Item-Total-</td>
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<td></td>
<td>Correlations</td>
<td>Correlations</td>
<td>Correlations</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>6. Weil Sex an sich eine unverhältnismäßig große Faszination ausübt, ist unsere Gesellschaft für Straftaten in diesem Bereich auch unverhältnismäßig sensibel / Из-за непропорционально высокого интереса к сексу чувствительность нашего общества к преступлениям в этой сфере также непропорционально высока.</td>
<td>.46</td>
<td>3.44</td>
<td>1.58</td>
</tr>
<tr>
<td>7. Frauen zieren sich gerne. Das bedeutet nicht, dass sie keinen Sex wollen / Женщинам нравится казаться невозмутимыми. Это не значит, что они на самом деле не хотят секса.</td>
<td>.54</td>
<td>3.74</td>
<td>1.95</td>
</tr>
<tr>
<td>8. Viele Frauen neigen dazu, das Problem der Männergewalt zu übertreiben / Многие женщины имеют тенденцию преувеличивать проблему мужского насилия.</td>
<td>.62</td>
<td>2.89</td>
<td>1.56</td>
</tr>
<tr>
<td>9. Wenn ein Mann seine Partnerin zum Sex drängt, kann man das nicht Vergewaltigung nennen / Когда мужчина склоняет свою партнершу заняться с ним сексом, это нельзя назвать изнасилованием.</td>
<td>.56</td>
<td>2.08</td>
<td>1.39</td>
</tr>
<tr>
<td>10. Frauen bezichten ihre Männer häufig einer Vergewaltigung in der Ehe, um sich für eine gescheiterte Beziehung zu rächen / Женщины часто обвиняют своих мужчин в супружеском насилии, чтобы отомстить им за неудачные отношения.</td>
<td>.66</td>
<td>2.65</td>
<td>1.40</td>
</tr>
<tr>
<td>10. Frauen bezichten ihre Männer häufig einer Vergewaltigung in der Ehe, um sich für eine gescheiterte Beziehung zu rächen / Женщины часто обвиняют своих мужчин в супружеском насилии, чтобы отомстить им за неудачные отношения.</td>
<td>.66</td>
<td>2.65</td>
<td>1.40</td>
</tr>
</tbody>
</table>

(continued on next page)
11. Die Diskussion über sexuelle Belästigung am Arbeitsplatz hat vor allem dazu geführt, dass manches harmlose Verhalten jetzt als Belästigung missverstanden wird / Дискуссия по поводу сексуальных домогательств на работе в основном привела к тому, что безобидное поведение стало неправильно восприниматься как домогательство.

<table>
<thead>
<tr>
<th>Items of the AMMSA Scale (continued)</th>
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<th>Russian non-students</th>
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<td>11. Die Diskussion über sexuelle Belästigung am Arbeitsplatz hat vor allem dazu geführt, dass manches harmlose Verhalten jetzt als Belästigung missverstanden wird</td>
<td>.72</td>
<td>3.61</td>
<td>1.75</td>
</tr>
<tr>
<td>12. Beim Kennenlernen entspricht es der allgemeinen Erwartung, dass die Frau &quot;bremst&quot; und der Mann &quot;Gas gibt&quot; / На свиданиях в целом ожидается, что женщина «жмет на тормоза», а мужчина «жмет на газ».</td>
<td>.51</td>
<td>3.19</td>
<td>1.69</td>
</tr>
<tr>
<td>13. Obwohl die Opfer bewaffneter Raubüberfälle um ihr Leben fürchten müssen, erhalten sie wesentlich weniger psychologische Unterstützung als Vergewaltigungsofper / Хотя жертвы вооруженного ограбления должны испытывать страх за свою жизнь, они получают значительно меньше психологической поддержки, чем жертвы изнасилований.</td>
<td>.42</td>
<td>3.87</td>
<td>1.30</td>
</tr>
<tr>
<td>14. Wenn Männer vergewaltigen, ist oft der Alkohol schuld / Когда мужчины совершают изнасилования, виновником часто оказывается алкоголь.</td>
<td>.32</td>
<td>2.49</td>
<td>1.44</td>
</tr>
<tr>
<td>15. Viele Frauen neigen dazu, eine nett gemeinte Geste zum &quot;sexuellen Übergriff&quot; hochzuspielen / Многие девушки имеют склонность неправильно интерпретировать жесты, сделанные из лучших побуждений как посягательства сексуального характера.</td>
<td>.54</td>
<td>2.99</td>
<td>1.52</td>
</tr>
<tr>
<td>16. Für die Opfer sexueller Gewalt wird heutzutage durch Frauenhäuser, Therapieangebote und Selbsthilfegruppen schon genug getan / На сегодняшний день жертвы сексуального насилия получают достаточно помощи в форме убежищ для женщин, терапии и групп поддержки.</td>
<td>.45</td>
<td>2.86</td>
<td>1.27</td>
</tr>
</tbody>
</table>
Appendix 2  
(AMMSA scale English version)

1. To get custody for their children, women often falsely accuse their ex-husbands of a tendency towards sexual violence.
2. After a rape, women nowadays receive ample support.
3. Nowadays, a large proportion of rapes is partially caused by the depiction of sexuality in the media as this raises the sex drive of potential perpetrators.
4. When a woman starts a relationship with a man, she must be aware that the man will assert his right to have sex.
5. Most women prefer to be praised for their looks rather than their intelligence.
6. Because the fascination caused by sex is disproportionately large, our society’s sensitivity to crimes in this area is disproportionate as well.
7. Women like to play coy. This does not mean that they do not want sex.
8. Many women tend to exaggerate the problem of male violence.
9. When a man urges his female partner to have sex, this cannot be called rape.
10. Women often accuse their husbands of marital rape just to retaliate for a failed relationship.
11. The discussion about sexual harassment on the job has mainly resulted in many a harmless behavior being misinterpreted as harassment.
12. In dating situations, the general expectation is that the woman “hits the brakes” and the man “pushes ahead.”
13. Although the victims of armed robbery have to fear for their lives, they receive far less psychological support than do rape victims.
14. Alcohol is often the culprit when a man rapes a woman.
15. Many women tend to misinterpret a well-meant gesture as a “sexual assault.”
16. Nowadays, the victims of sexual violence receive sufficient help in the form of women’s shelters, therapy offers, and support groups.