Gender Trouble: Threat Reactions Towards Gender-Inclusive Initiatives and the Role of Gender Identity Salience and Gender Identification

Annemieke A. De Ruijter (6222013)
Department of Social, Health and Organizational Psychology, Utrecht University

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Miriam Wickham MSc.

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Abstract

The current, binary view on gender is changing and more attention is raised to genders outside of the gender binary. Gender-inclusive initiatives are posed to include all genders. In this study, two types of gender-inclusive initiatives were considered, where multi-gendering initiatives are aimed at adding a third gender to the existing two, and de-gendering initiatives on completely removing gender labels altogether. These initiatives can cause threat reactions. We examined whether gender identity salience and gender identification affect these threat reactions related to the gender-inclusive initiatives. Gender identity salience was manipulated by providing the participants with gender identification items before the gender-inclusive initiative or afterward. We also examined differences in threat for different gender identities (male or female) and the two types of initiatives. We found a main effect of type of initiative, where de-gendering initiatives were more threatening than multi-gendering initiatives, as we expected. We also found a main effect of gender identity, where men experienced more threat than women. Furthermore, we expected that both gender identity salience and strength of gender identification would increase threat reactions, which we did not find. Our findings

provide theoretical insights into this novel field, such as gender identity differences in threat reactions. We also offer important practical directions for policymakers and implementers, for example, that policymakers should focus on multi-gendering initiatives to diminish threat reactions. Lastly, we provide promising future directions, such as the other emotional responses that might affect threat reactions towards gender-inclusive initiatives. Limitations and other future recommendations are discussed.

Introduction

In Western society, gender is traditionally viewed as a binary construct, where an individual's gender identity is based on the sex assigned at birth (Morgenroth & Ryan, 2020). Individuals who disobey the norms associated with their prescribed gender are often disadvantaged, for example through social exclusion and poorer mental health (Morgenroth & Ryan, 2018; Morgenroth et al., 2021; Monro, 2019). Recently, so-called *gender-inclusive* initiatives are posed, which are meant to include genders inside and outside of the binary (Butler, 1990; Morgenroth & Ryan, 2018).

Gender-Inclusive Initiatives

There are various types of gender-inclusive initiatives. On one hand, attempts are made to add a 'third gender' to the binary, to increase attention to gender identities that exist outside of the binary. This is referred to as *multi-gendering* (Butler, 1990; Morgenroth & Ryan, 2020). An example of a multi-gendering initiative is for non-binary and intersex individuals to put an 'X' on a passport for gender instead of 'F' or 'M' (NOS, 2021). Individuals who identify as male or female are still free to identify as such, stressing the fact that a multi-gendering initiative is about *adding* an extra gender to the existing two. There may be certain disadvantages to this type of initiative. For example, a multi-gendering initiative can induce identity threat to individuals from gender minority groups (Broussard et al., 2018). Explicitly 'coming out' as non-conforming – in this case, as non-binary, agender, or any other gender identity than male or female – leaves these individuals in the danger of rejection and stigmatization. This causes minority stress, and they may thereby feel safer and more comfortable avoiding explicitly outing themselves as non-binary. Furthermore, adding another gender category might only reinforce the idea of 'putting people into boxes', which can be limiting, leaves little room for change or deviations, and reinforces heteronormativity, as new gender categories are inevitably associated with accompanying gender norms (Duits, 2018).

Hence, on the other hand, attempts are made to discard gender labels altogether. Initiatives such as these are aimed at decreasing the salience and importance of gender. This is referred to as *de-gendering* (Butler, 1990; Morgenroth & Ryan, 2020). An example of a de-gendering initiative is using 'dear travelers' instead of 'dear ladies and gentlemen' in public transport announcements (NOS, 2017). So, as opposed to adding an extra gender category as is done in multi-gendering initiatives, the gender categories are removed altogether in de-gendering initiatives. Particularly the individuals who do not fall into one of the binary categories themselves might plea for discarding gender labels altogether, as it is the 'fairest'

way to stop putting people into boxes. However, completely discarding gender labels might be problematic for individuals who do identify as a binary gender and are not personally associated with non-binary individuals (Morgenroth et al., 2021). Therefore, these initiatives can cause threat reactions.

Threat Reactions

Although gender-inclusive initiatives, particularly multi-gendering initiatives, can have disadvantages for non-binary individuals, it is likely that non-binary individuals would still prefer any gender-inclusive initiative over none since these initiatives may still feel fairer and more welcoming (Butler, 1990; Morgenroth & Ryan, 2020). However, gender-inclusive initiatives also cause resistance and threat reactions in gender binary individuals (Monro, 2019; Morgenroth & Ryan, 2020; Morgenroth & Ryan, 2018). These threat reactions inflame behavioral outcomes such as gender stereotyping, reinforcement of binary views, and negative responses towards the gender-inclusive initiatives or towards the people who implement the initiatives (Morgenroth & Ryan, 2020). For example, Broussard and colleagues (2018) found that gender-inclusive questionnaire formats, which have more than two answer options for gender, an example of a multi-gendering initiative, were rejected by participants who experienced high threat related to the fading of the distinction between men and women. Moreover, the initiative reinforced their gender binary views. As most of the people in higher positions are cisgender, they will likely be the ones deciding about the policies, which is why it is important to diminish their experienced threat as much as possible (Broussard et al., 2018). Thus, it is important to gain insight into when and why they approve or disapprove of policies.

Gender Identity Salience and Level of Identification

One of the reasons individuals feel threatened by gender-inclusive initiatives might be their investment in, and the salience of, their gender category (Morgenroth et al., 2021). Morgenroth and colleagues (2021) indeed found that high gender identification was related to higher resistance to gender-inclusive initiatives. Importantly, we make a distinction between gender *identity* and gender *identification*, where gender identity refers to the gender group individuals relate most to (e.g., women), and gender identification refers to the *extent* to which they identify with that gender group (i.e., how important their gender group is to their self-image).

The explanation for the relationship between gender identification and threat reactions related to gender-inclusive initiatives originates from social identity theory (Tajfel & Turner, 1979). As this theory explains, social groups, such as gender groups, are a vital part of a

person's self-definition (Trepte & Joy, 2017; Schmader & Block, 2015). Membership of a social group does not only cause individuals to defend that in-group, but also to increase the distance with their social out-groups (Trepte & Loy, 2017). Thus, individuals are motivated to maintain or even enlarge the differences between the in-group and the out-group, in our case, their own gender group and other gender groups. As high gender identifiers are more invested in their gender group, they are also more motivated to maintain and enlarge differences between their gender group and other gender groups and defend the gender binary. Consequently, initiatives blurring the lines between the two binary genders might cause more resistance and feel more threatening (Broussard et al., 2018; Morgenroth et al., 2021). It is also likely that the more salient the social group is to the individual, the stronger this resistance will be. Thus, we expect that participants' gender identity salience, as well as their gender identification, will strengthen threat reactions related to gender-inclusive initiatives.

Type of Initiative

Interestingly, the relationship between gender identification and threat reactions related to gender-inclusive initiatives has been found both in multi-gendering and de-gendering initiatives, although the effect might be stronger for de-gendering initiatives (Morgenroth et al., 2021). Particularly de-gendering initiatives have been found to seem more unfair to high gender identifiers, as these initiatives completely discard the binary that is so important to their self-image. Multi-gendering initiatives, on the other hand, are about adding a third gender to the existing binary, which could allow for the identification of the individuals who threaten the binary, i.e., the 'perpetrators' (Broussard et al., 2018). Maximizing the differences between the in-group and other groups, something high identifiers are motivated to do (Trepte & Loy, 2017), is thus still possible in a multi-gendering initiative. Therefore, high gender identifiers might prefer multi-gendering initiatives over de-gendering initiatives (Broussard et al., 2018). The same is likely true when gender identity is more salient. To conclude, although de-gendering initiatives may be the fairest option according to gender non-binary individuals, these initiatives are likely to be the initiatives that cause the greatest experience of threat to gender binary individuals, particularly for those high in gender identification and when gender identity is more salient.

Gender Identity

Moreover, besides the differences in threat between the two different types of initiatives for binary and non-binary individuals, there may also be differences in how much threat is experienced for different gender identities, such as women, men, and non-binary individuals (Morgenroth & Ryan, 2020). For example, threat reactions are most present in

individuals with higher status. This is because gender-inclusive initiatives potentially change the existing status and power structures, which is most threatening for those who benefit from the current power structures (Morgenroth & Ryan). Thus, regarding social status, men would experience more threat than women, and cisgender individuals would likely experience more threat than transgender and non-binary individuals. However, threat reactions due to safety concerns are generally stronger in (cisgender) women than men (Morgenroth & Ryan). Thus, individuals with different gender identities may experience different types of threat. It is also possible that the effects of certain gender identities on certain types of threat are influenced by gender identity salience or gender identification. For example, when gender identity is more salient, men might also be more aware of the higher status that is associated with their gender, and the threat reactions might be increased (Morgenroth et al., 2021). The same is likely true for gender identification, where the expected effect of gender identification on threat could be strengthened or weakened by certain gender identity. However, as we are measuring threat in general in this study, we may not find these differences in threat reactions between different gender identities. Still, to explore the different effects of gender identity on threat, the main effect of gender identity on threat will be examined, as well as the interaction effects between gender identity, gender identity salience, and gender identification on threat.

The Present Study

In this research, we investigated threat responses to a de-gendering or multi-gendering initiative in an online experiment. We expanded on the research by Morgenroth and colleagues (2021), who already investigated resistance toward gender-inclusive initiatives but did not examine threat reactions specifically. Additionally, we manipulated the salience of participants' gender identity to see whether threat reactions are stronger when gender identity is more salient. We did this by providing the participants with gender identity and gender identification items before they were confronted with a gender-inclusive initiative, or afterward. We also examined the effects of gender identification, type of initiative, and gender identity on threat related to gender-inclusive initiatives.

Hypotheses

In this research, we had two main hypotheses:

1. Gender identity salience is related to threat toward gender-inclusive initiatives, such that participants who were reminded of their gender identity feel more threatened than participants who were not.
2. Higher levels of gender identification are related to higher levels of threat toward gender-inclusive initiatives.

Additionally, we expected that type of initiative, as well as participants' gender identity, would affect levels of threat. As such, we included them as moderators in our main hypotheses. We expected that:

3. The de-gendering initiative is related to higher levels of threat than the multi-gendering initiative.
4. Binary participants feel more threatened than non-binary participants, and there may be differences in threat between men and women.

Methods

This study was ethically approved by the Ethical Review Board of the Faculty of Social and Behavioural Sciences (the FERB) of Utrecht University.

Participants

A G*Power analysis (Faul et al., 2009) was conducted prior to the study, which showed that 186 participants were required for this study. In this analysis, the effect size f = 0.33 was used, based on the effect size of Morgenroth and colleagues (2021). As the experiment was conducted with a fellow student, who needed more participants, we recruited 305 participants for this study. The participants were recruited through convenience sampling. A link to participate in the study was spread through social media and through the university.

A number of participants (N = 93) were excluded from the data set based on one of the following exclusion criteria: participants did not answer either of the attention checks correctly, or participants did not answer all the required questions. We included a total of N = 212. The mean age of the participants was M = 26.13 years (SD = 8.12). A vast majority (94.8%) of the participants were highly educated (i.e., Dutch HBO or higher). Of these, 38% indicated that they are a Psychology student and/or graduate. Furthermore, 68.9% of the participants were female, 28.8% were male, and 2.4% of participants indicated that they identified as non-binary or other. 1% indicated that they were transgender. 17% of the participants identified as members of the LGBTQIA+ community. 7.5% of the participants indicated that they are a member of another minority group than the ones already mentioned. These groups included racial or ethnic groups, or neurodivergence, as specified by the participants. 70.3% of the participants were from The Netherlands, 25.9% from Switzerland, and 4.4% from various other countries, see Appendix A.

Materials

Gender-Inclusive Initiative

We manipulated which one of two gender-inclusive initiatives participants viewed. In the de-gendering condition, participants viewed a fictional article in which a popular clothing brand was said to implement a policy where gender labels will be discarded all together. In the multi-gendering condition, participants viewed a fictional article in which the fashion brand was said to add a third gender label to their fashion collection. These gender-inclusive initiatives were extracted from the study by Morgenroth and colleagues (2021). See Appendix B.

Measures

All items were measured on a 7-point Likert scale.

Experience of Threat. To measure the experience of threat related to the gender-inclusive initiative, we used four items based on a subscale of the SAM (Peacock & Wong, 1990). An example item is "I think this policy is a threatening situation". $\alpha = .89$. See Appendix C.

Gender Identification. Gender identification was measured using four items based on a subscale of the Collective Self-Esteem Scale (Schmader, 2001). An example item is "My gender identity is an important part of my self-image". The original items use 'men' or 'women' instead of 'my gender identity'. However, since we aimed to view gender as a construct beyond the gender binary, the items were stated in a gender-inclusive way to also appeal to individuals who do not identify as a binary gender. $\alpha = .75$. Item 2 and item 4 were reverse-coded. See Appendix D.

Gender Identity. Gender identity was measured using one item: "Which of these best fits your gender identity?". The participants could choose from the category's 'female', 'male', 'non-binary', 'agender', 'prefer not to say', or 'other, please specify…'.

Design

We used a 2 (type of initiative: multi-gendering, de-gendering) x 2 (gender identification: salient, non-salient) x 2 (gender identity: female, male) between-subjects design.

Procedure

The experiment was an online questionnaire. First, participants gave informed consent by clicking a forced-response button before continuing the survey. Next, half of the participants answered the gender identity and gender identification items (gender identity salient condition). Then, all the participants read the article about a gender-inclusive initiative. Half of the participants received the de-gendering article (de-gendering condition), and the other half received the multi-gendering article (multi-gendering condition). After reading the

article, the participants had to answer one item about the content of the article (attention check). Then, they answered the items on threat. After the threat items, four items on their experience of challenge, three items on approach attitudes, and one item on perceiving gender-inclusive initiatives as a superordinate goal were also measured. These items were part of the study of my student colleague, and the scores were not used for the purposes of this study. Afterward, the participants received demographic questions, namely age, country of residence, and education level. Additionally, if participants indicated higher education as their education level, they were asked whether they were a psychology major or not, as awareness of the methods or familiarity with the materials might affect their responses (Wilson et al., 2010). Furthermore, all participants were asked whether they identify as a member of the LGBTQIA+ community, whether they are transgender, and whether they are a member of any other minority group. Next, half of the participants received the gender identity and gender identification items (gender identity not salient condition). Lastly, the participants were debriefed.

Results

Data Preparation

The normal distribution of the variables was examined. The skewness for the variable threat was found to be 1.51, indicating that the distribution was right-skewed. The Kurtosis of 'threat' was 2.48. Therefore, the variable threat was transformed using a log10 transformation. After this transformation, the skewness was estimated at .48 and the Kurtosis at –.67. Furthermore, the Shapiro-Wilk test was estimated at .92 ($df = 212$, $p < .001$), indicating that the data was still not normally distributed. However, in terms of type 1 error, it has been found that the *F*-test is robust enough to still be conducted when data is non-normally distributed (Blanca et al., 2017), so we conducted the analyses. We decided to use the log10 transformed variable for further analyses, as this variable was closer to a normal distribution. The variable gender identification was normally distributed. For the variable gender identity, only two levels were used ('female' and 'male'), as the other gender identity groups were not sufficient in size. This resulted in excluding 6 participants from the main analyses, leaving the total number of participants at $N = 206$. All syntax can be found in Appendix E.

Descriptive Statistics

Participants' mean threat was $M = 2.08$, $SD = 1.18$. Mean scores of threat for different groups are displayed in Table 1. Participants' mean gender identification was $M = 4.38$, $SD = 1.20$.

Effect of Gender Identity Salience Manipulation on Threat

The hypothesis that gender identity salience is related to a higher experience of threat (hypothesis 1) was tested. Gender identity and type of initiative were also included in the analysis to whether and how they relate to threat and gender identity salience (hypotheses 3 and 4). A 2 (type of initiative: multi-gendering, de-gendering) x 2 (condition: non-manipulated, manipulated) x 2 (gender identity: female, male) ANOVA was performed. First, assumptions were tested. The dependent variable was continuous; the independent variables were categorical, independent groups; and the observations were independent, meaning that the first three assumptions are met. There were no significant outliers detected. Lastly, as the independent groups of the three-way ANOVA were not equal in sample size, homogeneity of variances was examined. Levene's test yielded a value of .46 and was not significant, $p = .861$, which indicates that this assumption is also met. The main effect of type of initiative was significant, $F(1, 207) = 6.29$, $p = .013$, $\eta_p^2 = .031$, with participants in the de-gendering group ($M = 0.30$, $SD = 0.22$) reporting more threat than participants in the multi-gendering

Table 1

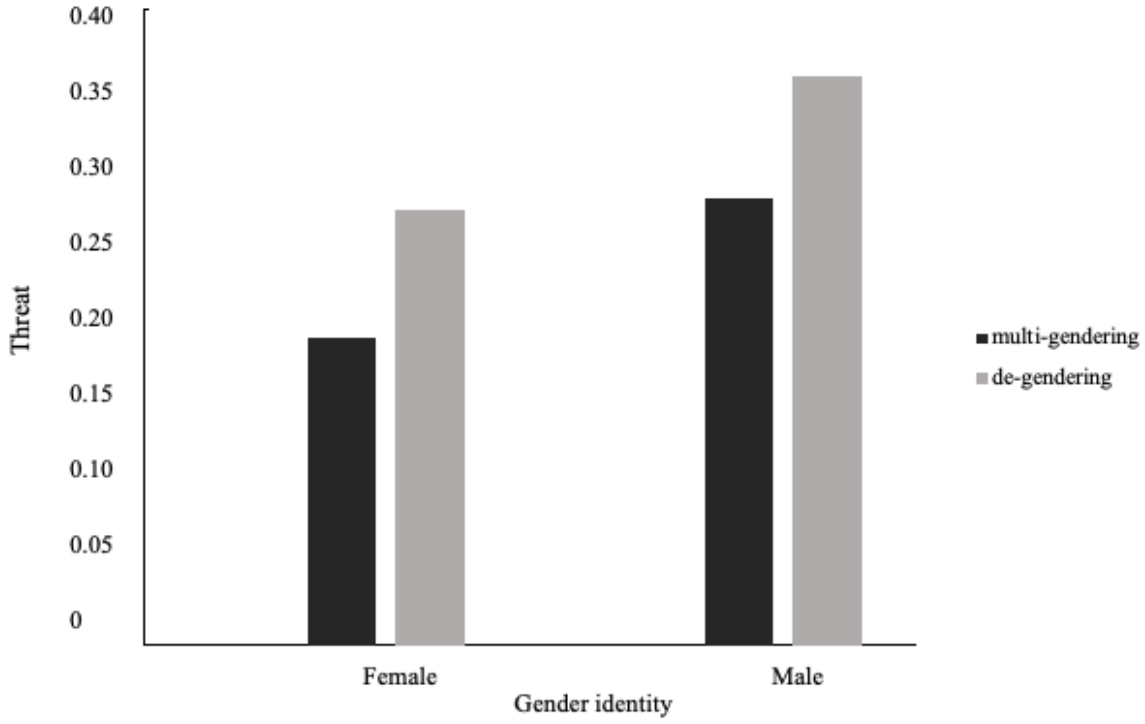
Mean Threat per Group

Group	*M*	*SD*
Type of initiative		
Multi-gendering	1.90	1.12
De-gendering	2.25	1.23
Gender identity		
Female	1.95	1.10
Male	2.39	1.33
Other	2.00	0.77
Condition		
Not manipulated	2.07	1.20
Manipulated	2.31	1.34

group (M = 0.22, SD = 0.21)[1]. The main effect of gender identity was also significant, F(1, 207) = 7.42, p = .007, η_p^2 = .036, with men (M = 0.32, SD = 0.23) reporting more threat than women (M = 0.24, SD = 0.21). For an illustration of these results, see Figure 1. The main effect of condition was not significant, p = .656. None of the interaction effects were significant, including the three-way interaction, all ps > .290. These results show that there was no significant difference in threat between the gender identity salience manipulated and non-manipulated groups, indicating that hypothesis 1 was not met. However, the results show that men experienced more threat related to gender-inclusive initiatives than women and that de-gendering initiatives were more threatening than multi-gendering initiatives, in line with our expectations (hypotheses 3 and 4).

Figure 1

Interaction Effect between Type of Initiative and Gender Identity



Note. The means of threat are log transformed

[1] Note that the means in this section are log transformed. See the Descriptive Statistics section for the original mean scores of 'threat'.

Effect of Gender Identification on Threat

To test the hypothesis that higher levels of gender identification are related to higher levels of threat (hypothesis 2) a hierarchical multiple regression analysis was performed. Type of initiative and gender identity were also included, to see whether and how these relate to threat and gender identification (hypotheses 3 and 4). Assumptions were tested. First, the linear relationship between the outcome variable and the predictor variables was examined and this assumption was met. Second, the assumption of multicollinearity was tested by examining the VIF values. All VIF values were estimated at 1.00 or 1.1, which indicates that the assumption of multicollinearity was met. Third, a Durbin-Watson value was examined to check the independence of observations. This assumption was met, $d = 1.94$. Fourth, homoscedasticity was tested by examining a scatter plot, which showed no clear patterns. This indicates that this assumption was also met. Finally, a P-P plot was examined to test whether the residuals follow a normal distribution. This assumption was also met.

In model 1 of the hierarchical multiple regression, we tested whether threat was predicted by gender identity, type of initiative, and gender identification. In model 2, the interactions between gender identity and gender identification, and between type of initiative and gender identification were added, to explore these relationships further. Step one of the hierarchical multiple regression was significant, $R^2 = .065$, $F\ (3, 202) = 4.67$, $p = .004$. Type of initiative significantly predicted threat, $\beta = .18$, $p = .010$, as well as gender identity, $\beta = .20$, $p = .006$. Gender identification did not significantly predict threat, $\beta = .07$, $p = .303$. The addition of the interaction effects in step two did not result in a significant R change, $p = .380$, and the interaction effects did not significantly predict threat, all ps $> .507$. These results indicate that gender identification does not significantly predict threat, which means that hypothesis 2 was not met. However, the results also indicate that type of initiative and gender identity predict threat (hypotheses 3 and 4), in line with our previous findings.

Discussion

The purpose of this study was to investigate the effects of gender identity salience and gender identification on threat reactions related to gender-inclusive initiatives. The salience of participants' gender identity was manipulated by reminding participants of their gender identity before exposure to a gender-inclusive initiative, or after the initiative. The effects of two different types of initiatives (multi-gendering and de-gendering) and participants' gender identity (female or male) on threat were also considered. The results show that neither gender

identity salience nor gender identification affected threat reactions related to gender-inclusive initiatives, meaning that our main hypotheses were not met. However, gender identity and type of initiative did influence threat reactions, where men experienced more threat than women, and de-gendering initiatives were more threatening than multi-gendering initiatives, in line with our expectations.

Effect of Gender Identity Salience on Threat

Our results show that gender identity salience did not affect threat reactions related to gender-inclusive initiatives. This suggests that individuals whose gender identity is more salient are not more threatened by the gender-inclusive initiatives than individuals whose gender identity is less salient. However, although not significant, the threat reactions in the salient condition were slightly higher than in the non-salient condition, showing that the direction of the effect was as expected. Thus, it is possible that the effect of gender identity salience does exist but is not strong enough to make a significant difference in threat reactions to gender-inclusive initiatives. Perhaps the relationship between gender identity salience and threat reactions was influenced by other emotional responses that are also triggered by gender identity salience. The absence of an effect could also be due to methodological limitations.

A theoretical explanation for the absence of an effect of gender identity salience on threat is that this relationship operates differently than we hypothesized. Various types of emotional responses are triggered in stressful situations when gender identity is salient. For example, Ryan and colleagues (2004) found that women behaved more caringly in stressful situations when their gender identity was more salient. Their gender identity salience triggered the stereotypical orientation that women are caring and connected, which may have caused them to also behave more caringly. If the same happened in our experiment, these orientations could have encouraged more feelings of connection with gender non-conforming individuals which could have relieved feelings of threat due to the gender-inclusive initiative. More research is necessary to investigate the relationship between gender identity salience and these responses to stressful situations, specifically threat reactions to gender-inclusive initiatives. Future research could give more insight into when and why certain emotional responses arise related to gender-inclusive initiatives when gender identity is more salient. Not only threat responses should be considered but also gender-stereotypical emotional responses.

A methodological explanation for the absence of an effect of gender identity salience on threat is that the items we used for the manipulation to make gender identity more salient may not have been sufficient in doing so. To make a social category more salient, an

individual's understanding of that category and the social cue that represents the category must be in line with one another (Trepte & Loy, 2017). This may not have been the case in our study. We used items by Schmader and colleagues (2001) but changed the wording. For example, '*Being a woman/man* is an important reflection of who I am' was changed to '*My gender identity* is an important reflection of who I am'. It is possible that the phrasing 'gender identity' is vaguer to the participants than woman or man. The words 'woman' or 'man' immediately evoke an image to most individuals, while 'gender identity' might not. This means that the cue representing the social category of gender identity that we provided our participants may not have been in line with participants' understanding of that category. Consequently, these items may have failed to make participants' gender identity more salient. This may have caused the effect of the manipulation to be weaker than in the original experiment by Schmader and colleagues and could explain the absence of an effect of gender identity salience on their experienced threat. Therefore, for follow-up research, we suggest including a manipulation check.

Moreover, participants might have been familiar with the methods. Almost all participants in our sample were highly educated and over a third of the participants also indicated that they were psychology majors, who may have been familiar with the methods or measurements. Participants are motivated to make sense of an experiment and most participants form their own theories and hypotheses about the concept that is investigated – referred to as the participant awareness bias (Wilson et al., 2010, p. 66). Particularly in our specific case of highly educated participants and many psychology students, this participant awareness may have caused the manipulation not to work.

Effect of Gender Identification on Threat

We also hypothesized that participants who identified more strongly with their gender group would experience more threat than low identifiers, which we did not find. Although gender identification was found to be related to resistance toward, and perceived unfairness of, gender-inclusive initiatives (Morgenroth et al.,2021), it had not yet been related to threat. Unlike resistance or perceived unfairness, threat is conceptually related to feelings of unsafety or insecurity, which is why it might have a different relationship with gender identification than resistance and perceived unfairness. For example, self-categorization with social groups has been related to decreased uncertainty in times of threat (Hogg, 2000). This could mean that high gender identifiers, therefore, experience less threat because they find their certainty and safety in their group membership. Moreover, identification with an in-group stimulates comparison with relevant out-groups (Trepte & Loy, 2017). In our sample, most participants

would probably evaluate their gender in-group more positively, because of the higher gender status of the participants. This distinctiveness has a positive effect on in-group members' self-esteem, which could have relieved their feelings of threat. Thus, perhaps the effect of gender identification on threat works in two directions, where on the one hand, it can increase threat, but on the other hand, it can relieve it. Future research should also include measures of self-esteem and perceived certainty to investigate this relationship between gender identification and threat in gender-inclusive initiatives and its mechanisms further.

However, the absence of an effect of gender identification on threat could also be due to our items not being completely effective in measuring gender identification. Our hypotheses were based on the notion that gender identification is related to motivation to enlarge the differences between in-group and out-group members (Tajfel & Turner, 1979). As such, we hypothesized that participants with higher gender identification would experience more threat to gender-inclusive initiatives since these initiatives potentially reduce differences between gender groups. However, our items, e.g., 'my gender identity is an important part of my self-image' (Schmader et al., 2001), may have triggered self-schema processes, which are about finding one's core processes that are central to their self-concept and social experiences (Onorato & Turner, 2004). Since wordings such as 'my self-image' were used in our gender identification items, it is plausible that these self-schema processes were triggered. Self-schema processes do not trigger the motivation to emphasize social group membership and enlarge the differences between in-group members and out-group members per se (Trepte & Loy, 2017), which may explain why we did not find an effect of gender identification on threat reactions. Other researchers, e.g., Becker and Barreto (2014), use items such as 'it is important for me to belong to the group of women/men'. As they measure gender identification as the extent to which an individual wants to belong or feels connected to the gender group of women or men, it is plausible that the processes to differentiate between one's in-group and out-groups were triggered more effectively with these items. Therefore, it is possible that the relationship between gender identification and threat would have been found if other items to measure gender identification were used. Thus, since belonging to a social group was not explicitly mentioned in the items, this may have undermined the capability of the items to measure gender identification adequately and this may have contributed to the absence of an effect of gender identification on threat. Therefore, for future research, we recommend using items that stress the intergroup processes that are involved in gender identification more.

Effects of Type of Initiative and Gender Identity on Threat

We found that the variables type of initiative and gender identity did influence threat. First, an effect of type of initiative on threat was found, where de-gendering initiatives were related to higher threat reactions than multi-gendering initiatives. This is in line with literature stating that as de-gendering initiatives completely discard the genders, these have been found to evoke more resistance and feel more unfair to gender binary individuals than multi-gendering initiatives (Broussard et al., 2018; Duits, 2018; Morgenroth et al., 2021).

Furthermore, our results suggest that gender identity is related to threat, where men experience more threat related to gender-inclusive initiatives than women. This is also in line with previous literature since higher-status individuals (i.e., men) experience more resistance toward gender-inclusive initiatives than lower-status individuals (i.e., women; Morgenroth & Ryan, 2020). However, the effect of gender identity on threat was small. This could be explained by threat reactions due to safety concerns that may also have occurred in this initiative, which are generally more present in women than in men (Morgenroth & Ryan, 2020). Thus, the effect of gender identity on threat possibly works in two directions, where women might experience more safety threat, and men might experience more status threat. Therefore, for future research, we suggest measuring these different types of threat separately instead of on one general threat scale to gain more insight into the mechanisms behind threat reactions toward gender-inclusive initiatives.

Furthermore, although the mean threat scores of non-binary individuals were roughly equal to women's threat scores and lower than men's threat scores, our results show that non-binary individuals experienced slightly more threat in the multi-gendering initiative than in the de-gendering initiative, unlike women and men. This could be explained by the minority stress that these non-binary individuals might experience in the multi-gendering condition (Broussard et al., 2018). Explicitly 'coming out' as non-conforming – in this case, as non-binary, agender, or any other gender identity than male or female – leaves these individuals in the danger of rejection and stigmatization, which causes minority stress. This can make it feel more comfortable and safer for these individuals to avoid explicitly identifying themselves as non-binary. As such, they would prefer a de-gendering initiative over a multi-gendering initiative. Furthermore, adding another gender category, as is done in a multi-gendering initiative, might reinforce the idea of 'putting people into boxes', which can be limiting, leaves little room for change or deviations, and reinforces heteronormativity (Duits, 2018). Thus, this supports that, as previously theorized, non-binary individuals would feel more comfortable with de-gendering initiatives, while binary individuals would feel more comfortable with multi-gendering initiatives (Broussard et al., 2018; Duits, 2018; Morgenroth

et al., 2021). However, it should be noted that the group of non-binary participants in our sample was very small and that we did not find significant results for any of these effects due to lack of power. Therefore, it would be valuable to expand the current findings in future research by examining a sample that includes more gender non-conforming participants.

Low Threat Scores

A limitation of this study was that the mean score of threat was very low, and the scores were not normally distributed (i.e., there was a floor effect). Therefore, we log-transformed our threat data. However, a log transformation makes results more difficult to interpret and hypotheses harder to test (Changyong et al., 2014).

One reason why we found such low threat scores may be that the types of initiatives we showed participants were not very threatening to them. For example, the initiative might not have been relevant to the participants. The policy we used was about a youth fashion brand, extracted from Morgenroth and colleagues (2021). This initiative might not have been relevant to some participants who are not familiar with the fashion brand or do not shop there. Besides, the initiative solely entailed a change in the store organization, which is easy to avoid and therefore probably not very influential in individuals' daily lives. As threat reactions are defined as experiences where individuals feel like they cannot meet the situational demands (Blascovich & Mendes, 2001), it is plausible that threat reactions did not occur due to the current initiative. Other kinds of initiatives might have aroused more threat reactions. Particularly initiatives that arouse more adaptations of behavior, cognition, emotions, or habits. For example, gender-inclusive toilets in public places can evoke threat reactions due to safety concerns (Outten et al, 2019). Thus, for future research, it is recommended to use a more influential gender-inclusive initiative to measure threat reactions.

Another explanation might be that our threat measure was not sufficient. Threat was measured with explicit self-report measures. Self-report measures are subjective to socially desirable answering, such as response bias (Rezaei, 2021; Krumpal, 2013). Furthermore, our explicit mention of the word threat might have been subjective to various interpretations, as threat has been defined in numerous ways (Branscombe et al., 1999). For some, the word threat implies a fear-like reaction or a feeling of unsafety. Some participants may have experienced resistance of some kind but would not explain it as feeling threatened because they did not feel scared or unsafe while they conducted our experiment. Therefore, for future research, we recommend measuring threat implicitly, to gain a better understanding of the threat reactions that may arise as an effect of gender-inclusive initiatives. For example, by

measuring threat through physiological measures of heart rate and blood pressure (Scheepers, 2009).

Alternatively, our low threat scores could be explained by our convenience sample, which consisted of Western, educated, industrialized, rich, and democratic participants (WEIRD participants), who are not representative of the general population (Henrich et al., 2010). For example, Ohlander and colleagues (2005) found that higher education is associated with higher tolerance toward homosexual relationships, due to them being taught more about non-conformity, having greater complex reasoning, and more cognitive involvedness, causing these individuals to evaluate new ideas differently. Moreover, our young mean age could add to this, as younger participants have been found to be more open to non-traditional gender identities (Perales et al., 2018). Also, it is plausible that younger individuals are more familiar with non-binary genders, for example through social media exposure. As more contact with gender non-conforming individuals is associated with more positive attitudes towards homosexuality (Collier et al., 2012), the same is likely true for other LGBTQIA+ identities. These reasons might explain why we found such low effects for threat. Therefore, for further research, we recommend recruiting a more diverse sample to examine the threat effects.

Study Implications

Despite this limitation, our results suggest several theoretical and practical implications. First, our results provide insights into which type of gender-inclusive initiative would be less threatening. A vast majority of the people in higher positions are cisgender, for example in politics or company leadership positions (NOS, 2018). Therefore, cisgender individuals will likely be the ones making impactful decisions, such as company policies, public space arrangements and facilities, and the municipality- or countrywide laws (Broussard et al., 2018). Thus, it is important to diminish their experienced threat to gender-inclusive initiatives as much as possible, in order to get these kinds of initiatives in practice. At the same time, the initiatives should also feel safe and effective to the individuals they are targeted at, i.e., gender non-binary individuals. Our study provided insights into which type of initiative would be less threatening to binary individuals, which is a multi-gendering initiative. This provides practical directions to policymakers and implementers on gender-inclusive policies or interventions, such that multi-gendering initiatives will be easier to implement and will evoke fewer threat reactions than de-gendering initiatives.

Furthermore, it is important to learn more about the underlying mechanisms of threat reactions, and when and why individuals might feel threatened by the initiatives. Although we did not find effects of gender identity salience or gender identification, we did find that threat

reactions are related to individuals' gender identity. These results provide theoretical insights, e.g., that men feel more threatened than women in gender-inclusive initiatives. Moreover, we provide tentative insights into non-binary individuals' threat reactions related to gender-inclusive initiatives, where they likely experience more threat in multi-gendering initiatives than in de-gendering initiatives.

Lastly, our results provide promising directions for future research in this novel and important field. For example, suggestions to examine the underlying emotional and behavioral responses related to gender identity salience and gender-inclusive initiatives, e.g., gender-stereotypical responses, such as women behaving more caringly and connected. Furthermore, we offer suggestions to examine the relationship between threat reactions related to gender-inclusive initiatives, gender identification, and the possible relieving effect on threat caused by heightened self-esteem with higher gender identification.

Conclusion

The current study provided new insights into the relatively new field of gender-inclusive initiatives. We found that de-gendering initiatives were more threatening than multi-gendering initiatives to gender-binary individuals. Moreover, we found that men are generally more threatened than women by gender-inclusive initiatives. We also investigated the effects of gender identity salience and gender identification on threat reactions related to gender-inclusive initiatives. Although we did not find significant effects on threat of either, we provide various theoretical and methodological directions to examine these relationships and their underlying mechanisms further. Our results have theoretical implications since they contribute to the current understanding of threat reactions related to gender-inclusive initiatives. Our results also offer practical implications for policymakers and future initiatives. We hope that the present study will lead to further research in this important area.

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Appendix A

Countries of Residence

Country of residence	Frequency	Percentage
Anguilla	1	0.5
Cyprus	1	0.5
Germany	1	0.5
Italy	1	0.5
Netherlands	149	70.3
Slovak Republic (Slovakia)	1	0.5
Swaziland	1	0.5
Sweden	2	0.9
Switzerland	55	25.9

Appendix B

De-gendering condition

HOME NEWS SPORT ENTERTAINMENT LIFESTYLE VIDEO MORE TRENDING

H&M gets rid of “men” and “ladies” labels in its stores

This change will take place among all European branches

543

H&M is becoming the first international clothing retailer to remove gender labels from its stores.

The Swedish clothing chain will no longer label clothes themselves in terms of “men” and “ladies”, but will also do away with separate men’s and ladies’ sections in stores, organising the store instead based on the type of clothing (e.g. formal wear, sports clothing).

H&M will instead offer all of their clothing in different cuts and sizes for “all body types”.

The clothing style will not change – you’ll still find dresses and skirts alongside ties and boxer shorts. However, the clothing retailer is simply making the point that they can be worn by anybody.

Alex Green, the head of H&M said: “We feel that it’s time to get rid of gender segregation within our H&M collections and instead want to provide greater choice and variety to our customers, so that everyone can choose what they would like to wear.”

The H&M website will see the same changes to be brought in line with the stores.

Multi-gendering condition

HOME NEWS SPORT ENTERTAINMENT LIFESTYLE VIDEO MORE TRENDING

H&M introduces “non-binary” label in its stores

This change will take place among all European branches

543

H&M is becoming the first international clothing retailer to add “non-binary” labels for those breaking gender norms and those who identify as neither male nor female, to its stores.

The Swedish clothing chain will not only add “non-binary” labels to its clothes, but will also add a separate section in stores, reducing the size of the ladies’ and men’s departments in its stores to make room for the change.

H&M will offer “androgynous” clothing in different cuts for “all body types” under the non-binary label.

The clothing style will be a mix of traditionally feminine and masculine elements – you’ll find different patterns and cuts that aren’t usually combined.

Alex Green, the head of H&M said: “We feel that it’s time to provide options for those who don’t identify as male or female or who feel restricted by what is offered for men and women. We want to provide great options for all genders, not just men and women, so that everyone can find what they would like to wear.”

The H&M website will see the same changes to be brought in line with the stores.

Appendix C

Items on ‘threat’:

1. I think this policy is a threatening situation
2. I am anxious about the outcome of this policy
3. I think this policy will have negative outcomes
4. I think this policy will have a negative impact

Appendix D

Items on ‘gender identification’:

1. My gender identity is an important part of my self-image
2. My gender identity is unimportant to my sense of what kind of person I am (reverse scored)
3. My gender identity is an important reflection of who I am
4. My gender identity has very little to do with how I feel about myself (reverse scored)

Appendix E

```
DATASET ACTIVATE DataSet1.
RECODE gender_identif_2 (1=7) (2=6) (3=5) (4=4) (5=3) (8=2) (9=1) INTO
gender_identif_2_recoded.
VARIABLE LABELS  gender_identif_2_recoded 'My gender identity is unimportant to my
sense of what '+
    'kind of person I am'.
EXECUTE.

RECODE gender_identif_4 (1=7) (2=6) (3=5) (4=4) (5=3) (8=2) (9=1) INTO
gender_identif_4_recoded.
VARIABLE LABELS  gender_identif_4_recoded ' My gender identity has very little to do
with how I '+
    'feel about myself'.
EXECUTE.

RECODE gender_identif_1 (1=1) (2=2) (3=3) (4=4) (5=5) (8=6) (9=7) INTO
gender_identif_1.
VARIABLE LABELS  gender_identif_1 'My gender identity is an important part of my self-
image'.
EXECUTE.

RECODE gender_identif_1 (1=1) (2=2) (3=3) (4=4) (5=5) (8=6) (9=7) INTO
gender_identification_1.
VARIABLE LABELS  gender_identification_1 'My gender identity is an important part of
my self-image'.
EXECUTE.

RECODE gender_identif_3 (1=1) (2=2) (3=3) (4=4) (5=5) (8=6) (9=7) INTO
gender_identification_3.
VARIABLE LABELS  gender_identification_3 ' My gender identity is an important
reflection of who '+
    'I am'.
EXECUTE.

RECODE gender_identification_1 (1=1) (2=2) (3=3) (4=4) (5=5) (6=6) (7=7) INTO
gen_ident_1.
VARIABLE LABELS  gen_ident_1 'My gender identity is an important part of my self-
image'.
EXECUTE.

RECODE gender_identif_1 (1=1) (2=2) (3=3) (4=4) (5=5) (6=6) (7=7) INTO gend_identif_1.
VARIABLE LABELS  gend_identif_1 'My gender identity is an important part of my self-
image'.
EXECUTE.

COMPUTE gender_identification=(gend_identif_1 + gender_identif_2_recoded +
gender_identification_3
    + gender_identif_4_recoded) / 4.
```

```
EXECUTE.

FREQUENCIES VARIABLES=Country_1
  /ORDER=ANALYSIS.

RECODE Group ('multigend_manip'=2) ('degend_manip'=2) ('multigend_nonmanip'=1)
    ('degend_nonmanip'=1) INTO condition.
VARIABLE LABELS  condition 'condition'.
EXECUTE.

RECODE Group ('multigend_manip'=1) ('degend_manip'=2) ('multigend_nonmanip'=1)
    ('degend_nonmanip'=2) INTO type_of_initiative.
VARIABLE LABELS  type_of_initiative 'type_of_initiative'.
EXECUTE.

RECODE gender_identity (1=1) (2=2) (ELSE=SYSMIS) INTO gen_identity_2.
VARIABLE LABELS  gen_identity_2 'gen_identity_2'.
EXECUTE.

DATASET ACTIVATE DataSet1.
RELIABILITY
  /VARIABLES=threat_selfreport_1 threat_selfreport_2 threat_selfreport_3
threat_selfreport_4
  /SCALE('threat') ALL
  /MODEL=ALPHA
  /STATISTICS=DESCRIPTIVE SCALE CORR
  /SUMMARY=TOTAL.

DATASET ACTIVATE DataSet1.
COMPUTE threat=(threat_selfreport_1 + threat_selfreport_2 + threat_selfreport_3 +
    threat_selfreport_4) / 4.
EXECUTE.

RELIABILITY
  /VARIABLES=gend_identif_1 gender_identif_2_recoded gender_identification_3
    gender_identif_4_recoded
  /SCALE('gender_identif') ALL
  /MODEL=ALPHA
  /STATISTICS=DESCRIPTIVE SCALE CORR
  /SUMMARY=TOTAL.

DESCRIPTIVES VARIABLES=age
  /STATISTICS=MEAN STDDEV MIN MAX.

FREQUENCIES VARIABLES=education psy_maj LGBT trans minority minority_2_TEXT
Country_1
    gender_identity
  /ORDER=ANALYSIS.

DATASET ACTIVATE DataSet1.
```

```
COMPUTE gen_identif=(gender_identif_1 + gender_identif_2 + gender_identif_3 +
gender_identif_4) / 4.
EXECUTE.

DATASET ACTIVATE DataSet1.
COMPUTE threat=(threat_selfreport_1 + threat_selfreport_2 + threat_selfreport_3 +
    threat_selfreport_4) / 4.
EXECUTE.

RECODE Group ('multigend_manip'=2) ('degend_manip'=2) ('multigend_nonmanip'=1)
    ('degend_nonmanip'=1) INTO condition.
VARIABLE LABELS  condition 'condition'.
EXECUTE.

COMPUTE approach=(approach_attitude_1 + approach_attitude_2) / 2.
EXECUTE.

COMPUTE missingdata=NMISS(Country_1).
EXECUTE.

FREQUENCIES VARIABLES=missingdata
  /ORDER=ANALYSIS.

#compute variables for exclusion criteria

    COMPUTE missingdata=NMISS(Country_1).
EXECUTE.

COMPUTE exclusion_degen=de_gender_check > 1.
EXECUTE.

COMPUTE exclusion_multigen=multi_gender_check > 1.
EXECUTE.

#filter out excluded participants

USE ALL.
COMPUTE filter_$=(missingdata > 1).
VARIABLE LABELS filter_$ 'missingdata > 1 (FILTER)'.
VALUE LABELS filter_$ 0 'Not Selected' 1 'Selected'.
FORMATS filter_$ (f1.0).
FILTER BY filter_$.
EXECUTE.

COMPUTE exclusion=multi_gender_check > 1 or de_gender_check > 1 or
challenge_selfreport_5 < 7.
EXECUTE.

COMPUTE missing=NMISS(Country_1).
EXECUTE.
```

```
COMPUTE missing=NMISS(Country_1) = 1.
EXECUTE.

IF  (NMISS(Country_1) or multi_gender_check > 1 or de_gender_check > 1 or
challenge_selfreport_5 <
    7) exclusion=1.
EXECUTE.

UNIANOVA threat_log10 BY condition type_of_initiative gen_identity_2
  /METHOD=SSTYPE(3)
  /INTERCEPT=INCLUDE
  /EMMEANS=TABLES(condition*type_of_initiative*gen_identity_2)
  /PRINT ETASQ DESCRIPTIVE HOMOGENEITY OPOWER
  /CRITERIA=ALPHA(.05)
  /DESIGN=condition type_of_initiative gen_identity_2 condition*type_of_initiative
    condition*gen_identity_2 type_of_initiative*gen_identity_2
    condition*type_of_initiative*gen_identity_2.

REGRESSION
  /MISSING LISTWISE
  /CRITERIA=PIN(.05) POUT(.10)
  /NOORIGIN
  /DEPENDENT threat_log10
  /METHOD=ENTER gen_identity_2 type_of_initiative gender_identification
  /RESIDUALS DURBIN.

* Chart Builder.
GGRAPH
  /GRAPHDATASET NAME="graphdataset" VARIABLES=threat_log10
gender_identification MISSING=LISTWISE
    REPORTMISSING=NO
  /GRAPHSPEC SOURCE=INLINE
  /FITLINE TOTAL=NO SUBGROUP=NO.
BEGIN GPL
  SOURCE: s=userSource(id("graphdataset"))
  DATA: threat_log10=col(source(s), name("threat_log10"))
  DATA: gender_identification=col(source(s), name("gender_identification"))
  GUIDE: axis(dim(1), label("threat_log10"))
  GUIDE: axis(dim(2), label("gender_identification"))
  GUIDE: text.title(label("Scatter Plot of gender_identification by threat_log10"))
  ELEMENT: point(position(threat_log10*gender_identification))
END GPL.

* Chart Builder.
GGRAPH
  /GRAPHDATASET NAME="graphdataset" VARIABLES=threat_log10 type_of_initiative
MISSING=LISTWISE
    REPORTMISSING=NO
  /GRAPHSPEC SOURCE=INLINE
```

```
  /FITLINE TOTAL=NO SUBGROUP=NO.
BEGIN GPL
  SOURCE: s=userSource(id("graphdataset"))
  DATA: threat_log10=col(source(s), name("threat_log10"))
  DATA: type_of_initiative=col(source(s), name("type_of_initiative"), unit.category())
  GUIDE: axis(dim(1), label("threat_log10"))
  GUIDE: axis(dim(2), label("type_of_initiative"))
  GUIDE: text.title(label("Scatter Plot of type_of_initiative by threat_log10"))
  SCALE: cat(dim(2), include("1.00", "2.00"))
  ELEMENT: point(position(threat_log10*type_of_initiative))
END GPL.

UNIANOVA threat_log10 BY type_of_initiative condition gen_identity_2
  /METHOD=SSTYPE(3)
  /INTERCEPT=INCLUDE
  /PLOT=PROFILE(gen_identity_2*condition*type_of_initiative) TYPE=BAR
ERRORBAR=NO MEANREFERENCE=NO
  /EMMEANS=TABLES(type_of_initiative) COMPARE ADJ(LSD)
  /EMMEANS=TABLES(condition) COMPARE ADJ(LSD)
  /EMMEANS=TABLES(gen_identity_2) COMPARE ADJ(LSD)
  /EMMEANS=TABLES(type_of_initiative*condition)
  /EMMEANS=TABLES(type_of_initiative*gen_identity_2)
  /EMMEANS=TABLES(condition*gen_identity_2)
  /EMMEANS=TABLES(type_of_initiative*condition*gen_identity_2)
  /PRINT ETASQ DESCRIPTIVE HOMOGENEITY
  /CRITERIA=ALPHA(.05)
  /DESIGN=type_of_initiative condition gen_identity_2 type_of_initiative*condition
    type_of_initiative*gen_identity_2 condition*gen_identity_2
    type_of_initiative*condition*gen_identity_2.

UNIANOVA threat_log10 BY type_of_initiative gen_identity_2
  /METHOD=SSTYPE(3)
  /INTERCEPT=INCLUDE
  /PLOT=PROFILE(gen_identity_2*type_of_initiative) TYPE=BAR ERRORBAR=NO
MEANREFERENCE=NO
  /EMMEANS=TABLES(type_of_initiative) COMPARE ADJ(LSD)
  /EMMEANS=TABLES(gen_identity_2) COMPARE ADJ(LSD)
  /EMMEANS=TABLES(type_of_initiative*gen_identity_2) COMPARE(type_of_initiative)
ADJ(LSD)
  /EMMEANS=TABLES(type_of_initiative*gen_identity_2) COMPARE(gen_identity_2)
ADJ(LSD)
  /PRINT ETASQ DESCRIPTIVE HOMOGENEITY
  /CRITERIA=ALPHA(.05)
  /DESIGN=type_of_initiative gen_identity_2 type_of_initiative*gen_identity_2.

EXAMINE VARIABLES=gender_identification BY gen_identity_2 type_of_initiative
condition
  /PLOT BOXPLOT STEMLEAF
  /COMPARE GROUPS
  /STATISTICS DESCRIPTIVES
```

```
/CINTERVAL 95
/MISSING LISTWISE
/NOTOTAL.

  REGRESSION
/DESCRIPTIVES MEAN STDDEV CORR SIG N
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA CHANGE ZPP
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT threat_log10
/METHOD=ENTER type_of_initiative gen_identity_2 gender_identification
/METHOD=ENTER genidentif_genident genidentif_typeofinitiative
/SCATTERPLOT=(*ZRESID ,*ZPRED)
/RESIDUALS DURBIN NORMPROB(ZRESID)
/CASEWISE PLOT(ZRESID) OUTLIERS(3)
/SAVE COOK.
```