



Gender Trouble: Threat and Challenge Reactions Towards Gender-Inclusive Initiatives

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Abstract

As the binary categorization of gender/sex is facing growing social and scientific resistance, gender-inclusive initiatives such as all-gender toilets are one way to work towards a more gender-inclusive future. However, as they question the gender/sex binary, gender-inclusive initiatives might pose threats for the social identity of individuals. They might also challenge them to look beyond the gender/sex binary and work towards more gender inclusivity. Threat and challenge reactions might therefore be key factors in predicting the approach attitudes people hold towards gender inclusivity. With this study, we aimed to provide insights about threat and challenge reactions towards two different gender-inclusive initiatives, namely multi-gendering and de-gendering initiatives. In an online survey with a predominant number of cisgender respondents, articles about a clothing store introducing a non-binary gender/sex label (multi-gendering) or abolishing all gender/sex labels (de-gendering) were shown. Threat and challenge reactions were assessed to measure how the respondents' social identity was affected when confronted with one of the two initiatives. Furthermore, we investigated how threat and challenge reactions related to approach attitudes towards achieving gender inclusivity. In line with our hypothesis, the results showed a significantly higher level of threat in the de-gendering condition than in the multi-gendering condition. This difference was absent for the challenge reactions. Furthermore, as hypothesized, threat and challenge were shown as significant predictors for approach attitudes. These results suggest that multi-gendering initiatives are less threatening than de-gendering initiatives. These are important insights because threatened people are less likely to approach gender inclusivity. On this basis, the concepts of threat and challenge reactions should be considered when designing gender-inclusive initiatives.

Introduction

The view of gender as opposing, binary categories and as a consequence of biological sex is widely spread and traditionally accepted throughout the Western world (Morgenroth et al., 2021). In the field of psychology and other sciences, the binary categorization of humans into women and men has remained dominant ever since the 19th century (Hyde et al., 2019). However, this view is currently meeting with growing resistance from society and the scientific community (Hyde et al., 2019; Morgenroth et al., 2021, Schudson et al., 2019), claiming that it is both inaccurate and harmful (Joel et al., 2014; Schudson et al., 2019). The binary gender/sex¹ categorization can therefore have negative effects on individuals who do not conform to the norms ascribed to the binary categories (Schudson et al., 2019). This led to a more frequent use of the term “non-binary”.

Non-binary is an umbrella term for people who identify neither as exclusively female nor exclusively male, identifying either between or outside the binary identities (Monro, 2019; Morgenroth & Ryan, 2021). Studies investigating the effect of the gender/sex binary showed that non-binary people struggle with invisibility in the public sphere and show poorer mental health (Monro, 2019; Taylor et al., 2019). The Equalities Office of the British government found that fearing negative reactions has led 76% of the non-binary people to not express their gender identity (Government Equalities Office, 2018). The same and other studies discovered significantly lower quality of life in non-binary people in comparison with heterosexual and cisgender² people, presumably caused by social discrimination and minority stress (Government Equalities Office, 2018; Lefevor et al., 2019; Taylor et al., 2019). In an attempt to augment and secure sufficient health and life quality for everyone, this highly topical field of research therefore needs to generate new insights to better understand strategies on how to move away from a strictly binary gender/sex system.

Gender Inclusive Initiatives

One way to move away from the gender binary is using gender-inclusive initiatives, which have been increasingly implemented over the years. Morgenroth and Ryan (2021) used

¹ The terms „sex“ (biological) and „gender“ (sociocultural)“ are often distinguished. In the present study the term “gender/sex” will be used throughout to reflect that biological and sociocultural factors exist in a complex interplay, and that “sex” is also a socioculturally constructed term (see Hyde et al., 2019; Morgenroth & Ryan, 2021).

² The term cisgender is used to describe individuals whose gender identity conforms with their sex assigned at birth (Lefevor et al., 2019).

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Butler's (1990) term 'gender trouble' to describe a way to weaken the gender/sex binary and to work towards a gender-inclusive future. Butler (1990) and Goffman (1959) pioneered influential theories about gender as a performance. Using Goffman's (1959) theatre metaphor for the performance of gender, the 'stage', meaning the "physical and cultural environment in which gender/sex is performed", is subject to gender trouble in gender-inclusive initiatives (Morgenroth & Ryan, 2021, p. 1120). The stage is often designed in a way to support the alignment of different aspects of gender/sex into the binary categories (for example gender/sex segregated public spaces, such as toilets). It is made up of many different elements that can reinforce the gender/sex binary (Morgenroth & Ryan, 2021). Gender-inclusive initiatives want to challenge this and introduce changes in an individual's surroundings that disrupt and undermine the status quo by not conforming to the gender/sex binary.

This raises the question of how to most effectively use gender-inclusive initiatives to challenge the gender/sex binary. Bem (1995) discussed the underlying question of whether expanding the gender categories ("turning the volume up") or abolishing them ("turning the volume down") is more effective (p. 329). In line with this idea, Morgenroth and colleagues (2021) used multi-gendering and de-gendering initiatives to investigate this question in an experimental setting. Multi-gendering refers to a strategy of highlighting that gender/sex is not limited to the binary categories. Practical examples for that are the Dutch and the German government, among others, establishing a third gender label ('X') as a choice in an individual's passport (Eddy & Bennett, 2017; NOS, 2021) and the addition of gender-neutral pronouns in the Swedish language (Gustafsson Sendén et al., 2015; Lindqvist et al., 2019). These initiatives merely added a third gender/sex category which complements the binary categories of women and men. De-gendering, however, describes the attempts to reduce the salience of the gender/sex binary and its perceived importance (Morgenroth et al., 2021). Practical examples for this are the change from using 'dear ladies and gentlemen' to using 'dear passengers' in public transport announcements (NOS, 2017) and the introduction of all-gender toilets (NOS, 2016). De-gendering initiatives therefore remove gender/sex categories altogether instead of adding another category.

Multi-gendering and de-gendering initiatives among other things have led to more visibility of people identifying as non-binary and the public views of gender/sex to become decreasingly binary (Morgenroth & Ryan, 2021). However, it was found that individuals who reacted to multi- and de-gendering initiatives reported higher perceptions of unfairness compared with a control initiative (Morgenroth et al., 2021). In addition to that, such gender-inclusive initiatives are generally thought to trigger personal, group-based, and identity-based

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forms of threat (Morgenroth & Ryan, 2021). The same authors expanded on this and theorized that levels of threat could differ between de-gendering initiatives and multi-gendering initiatives. This is because de-gendering initiatives undermine the distinct binary group identities, leading to higher levels of threat for cisgender men and women (Morgenroth & Ryan, 2021). Multi-gendering initiatives do not entail such intrusive changes for cisgender individuals and therefore pose a smaller threat to their own social identity. Since threat and challenge have been shown to be motivational counterparts and to correlate negatively, multi-gendering initiatives are therefore expected to evoke higher levels of challenge than the de-gendering initiative (Scheepers, 2009). Thus, cisgender individuals can still make use of the binary gender/sex categorisation but are challenged to deal with the newly added gender/sex categories.

Hence, gender-inclusive initiatives have been generally theorized to elicit challenge reactions, calling the gender/sex binary into question, but also threat reactions, leading to a reinforcement of the binary views (Morgenroth et al., 2021, Morgenroth & Ryan, 2021). Threat reactions are associated with gender stereotyping, negative attitudes and discrimination towards, and dehumanization and delegitimization of gender troublemakers (Morgenroth et al., 2021). Challenge on the other hand is associated with approach behavior, which can act as a fundamental premise for achieving positive change. This makes challenge reactions an important element in understanding the process of changing the views on the gender/sex binary. Threat reactions have been present in recent research, while challenge reactions remain underexamined.

Threat Versus Challenge

Threat has been repeatedly shown to be an important motivational construct in the context of social identity (Branscombe et al., 1999; Scheepers, 2009). In the framework of the biopsychosocial model, threat and challenge reactions in inter-group cooperation situations were investigated by means of physiological reactions (Blascovich & Mendes, 2000; Blascovich & Tomaka, 1996; Scheepers, 2009). It has been found that threat reactions are maladaptive and associated with avoidance, while challenge reactions, the motivational counterpart to threat reactions, are generally benign states associated with approach (Blascovich, 2013; Elliot, 2006; Scheepers, 2009).

In the context of gender-inclusive initiatives, threatened individuals are therefore theorized to show little behaviour or intentions to approach gender inclusivity. Social identity theory explains this by suggesting that people who experience more threat caused by outgroups are more motivated to protect their ingroup identity and therefore oppose or remove

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the source of the threat (Outten et al., 2019; Tajfel & Turner, 1979). They would therefore embrace the status quo and reinforce the gender/sex binary by rejecting these initiatives (Morgenroth & Ryan, 2021). Challenged individuals on the other hand have been shown to display more functional coping in situations conflicting with their social identity as well as more task involvement and enjoyment (Ellemers et al., 1997; Elliot & Harackiewicz, 1996). They are therefore theorized to show more attitudes in favour of approaching gender inclusivity and, based on this, the readiness to overcome the gender/sex binary.

In summary, research suggests that threat and challenge form stable relationships with approach attitudes (Scheepers, 2009). However, in specific situations, a threatening situation can lead to approach, because its outcome is desirable enough to strive for it. In other words, when something is a superordinate goal (Blascovich, 2013), being threatened is related to more approach instead of avoidance. In the case of gender-inclusive initiatives, people who view gender inclusivity as a superordinate goal would likely also hold more pronounced approach attitudes towards these initiatives, even if they feel threatened by them. In this case, they would likely be more willing to work towards a gender-inclusive future, even if they feel that their personal gender identity is at risk.

The Current Study

This study focused on two gender-inclusive initiatives (de-gendering and multi-gendering initiatives; based on the design by Morgenroth et al., 2021) and their effects on the recipient's perception of feeling threatened or challenged about the outcome of the initiatives. Possible differences in threat and challenge reactions between multi- and de-gendering initiatives indicated which initiatives potentially triggered the most resistance or support, contributing to the understanding of effectively using gender-inclusive initiatives to get closer to gender inclusivity. Furthermore, it was investigated how threat and challenge reactions relate to approach attitudes, while analysing the potentially moderating effect of perceiving gender inclusivity as a superordinate goal on that relationship.

The following hypotheses were formulated and tested:

- 1a) A multi-gendering initiative elicits more challenge than a de-gendering initiative
- 1b) A de-gendering initiative elicits more threat than a multi-gendering initiative
- 2a) Challenge reactions are positively associated with approach attitudes
- 2b) Threat reactions are negatively associated with approach attitudes
- 2c) The perception of gender inclusivity as a superordinate goal moderates the relationship between threat reactions and approach attitudes, as such as the more it is seen as a

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superordinate goal, the more threat reactions are positively associated with approach attitudes.

Method

This study was ethically approved by the Ethical Review Board of the Faculty of Social and Behavioural Sciences of Utrecht University (FERB) under the approval number 22-0598.

Participants

Based on the effect sizes by Morgenroth and colleagues (2021; $f^2 = 0.11$) and Elliot and Harackiewicz, (1996; $f^2 = 0.07$) and the fact that a MANOVA and a hierarchical multiple linear regression were run, an a priori power analysis was carried out with G*Power (Faul et al., 2009). This indicated a research population consisting of 157 participants to reach a power of at least 80% ($\alpha = 0.05$) for both tests.³ Participants were recruited by distributing the questionnaire via the Utrecht University student subject pool and social media. Of the 305 participants who completed the survey, 94 participants were excluded for not meeting at least one of the following criteria: being exposed to the debriefing and correctly answer both attention check items. This yielded the final sample size of $N = 212$.

The mean age of the participants was $M = 26.13$ years ($SD = 8.12$). The sample was predominantly highly educated, having completed or currently completing higher education (40 participants indicated University of Applied Sciences, 76 University Bachelor's degree, 80 University Master's degree and 4 PhD). Of these, 76 were a Psychology student and/or graduate. 146 of the participants identified as female, 61 as male and five identified as agender, other or did not disclose. Two participants indicated that they are transgender, and one did not disclose. 36 participants indicated that they identified as members of the LGBTQIA+ community, and two did not disclose. 15 participants stated to be a member of a minority group other than the ones we asked about. As indicated by the open text responses, these included ethnic and religious groups and one neurodivergent person. 149 participants were from the Netherlands, 55 from Switzerland, and eight from various other countries (see Appendix C for the complete country distribution).

³ The proposed paper analysed data gathered in collaboration with another master student. The intention was to only include participants from the non-manipulated condition of the colleague's study, which is why the targeted sample number was doubled. This was done to make sure that the manipulation did not interfere with the constructs used to test the hypotheses of the present study. However, data analysis indicated that the conditions did not differ in the concepts of interest, leading to an inclusion of participants from both conditions.

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Materials

Conditions

Based on the condition they were in, the participants were exposed to one of two fictional online articles developed by Morgenroth and colleagues (2021) reporting that the well-known clothing brand H&M introduced changes in their gender label policies (see Appendix A). In the multi-gendering condition, the article stated that H&M introduced a third, non-binary gender label. In the de-gendering condition, the participants were informed that H&M abolished gender labels, and thus organises the stores based on the type of clothing.

Measures

All items were measured on 7-point Likert scales ranging from 1 = completely disagree to 7 = completely agree.

Threat and Challenge Scales. To measure threat and challenge responses towards the gender-inclusive initiatives, we included four items taken and adapted from the threat and challenge subscales of the stress appraisal measure (Peacock & Wong, 1990; see Appendix B). Two example items included "I think this policy will have a negative impact" (threat-scale, $\alpha = .89$), and „I am eager to tackle the inclusion of non-binary people by implementing such a policy" (challenge-scale, $\alpha = .87$).

Approach Attitude Items. Furthermore, approach attitudes towards such gender-related initiatives were evaluated by two items, which were self-written. The items were: "I welcome a change in gender-related domains (such as all-gender toilets) in my own surroundings" and "I would sign a petition that advocates for gender-inclusive issues" ($\alpha = .85$).

Superordinate Goal. The perception of gender inclusivity as a superordinate goal was assessed by one self-written item: "I perceive gender inclusivity as an overarching social goal".

Procedure

After accessing the online survey through a link, the participants were asked to give informed consent. Participants were told that the study aimed to assess opinions about different company initiatives (following Morgenroth et al., 2021). Next, due to the manipulation of a student colleague, half of the participants indicated their gender identity ('female', 'male', 'non-binary', 'agender', 'prefer not to say' or 'other') and the extent of their gender identification. Then, the participants were directed to the initiative articles. The half of the participants viewed the de-gendering article, and the other half viewed the multi-gendering article. One attention check item was displayed asking what the article was about. Next, participants answered the items about threat, challenge, approach attitudes and superordinate goal. Then, participants were asked for demographic information, specifically

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age, country of residence, education level, whether they were a psychology major, and LGBTQIA+ and transgender identity. Following, half of the participants indicated their gender identity and identification in line with the manipulation of a student colleague; this data is beyond the scope of this research. Lastly, the participants were debriefed.

Results

Descriptive Statistics of Main Dependent Variables

Across both types of initiatives, participants reported higher challenge reactions ($M = 4.53$, $SD = 1.47$) than threat reactions ($M = 2.08$, $SD = 1.18$). Threat and challenge were examined for both types of initiatives to test whether multi-gendering initiatives generated more challenge and de-gendering initiatives more threat reactions (hypotheses 1a and 1b). Furthermore, the extent to which participants perceived gender inclusivity as a superordinate goal ($M = 5.09$, $SD = 1.87$) and participants' approach attitude towards the topic ($M = 5.36$, $SD = 1.69$) were investigated (hypotheses 2a, 2b and 2c). The mean scores and standard deviations for all variables used in the analyses are displayed in Table 1.

Table 1

Means and Standard Deviations of Threat per Type of Initiative

	Multi-gendering		De-gendering	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Threat	1.90	1.11	2.25	1.22
Challenge	4.49	1.41	4.57	1.54
Approach Attitude	5.58	1.49	5.14	1.84
Superordinate Goal	5.24	1.92	4.94	1.83

Effect of Type of Initiative on Challenge and Threat Reactions

A MANOVA was run to examine the potential differences in challenge and threat reactions between multi-gendering and de-gendering initiatives. Before the MANOVA was conducted, the data was cleaned up and examined using SPSS Statistics in order to check all the assumptions needed to run the test. Using the Mahalanobis distance, two outliers were identified but were deliberately left in the data, since there is no reason to doubt the authenticity of the given responses and outliers are of interest in this study's context. Univariate normality was assessed with skewness, kurtosis and Shapiro-Wilk tests. The variable threat showed a right-skewed distribution and was therefore mutated with a log10 transformation. After the transformation the skewness was reduced, but the Shapiro-Wilk test

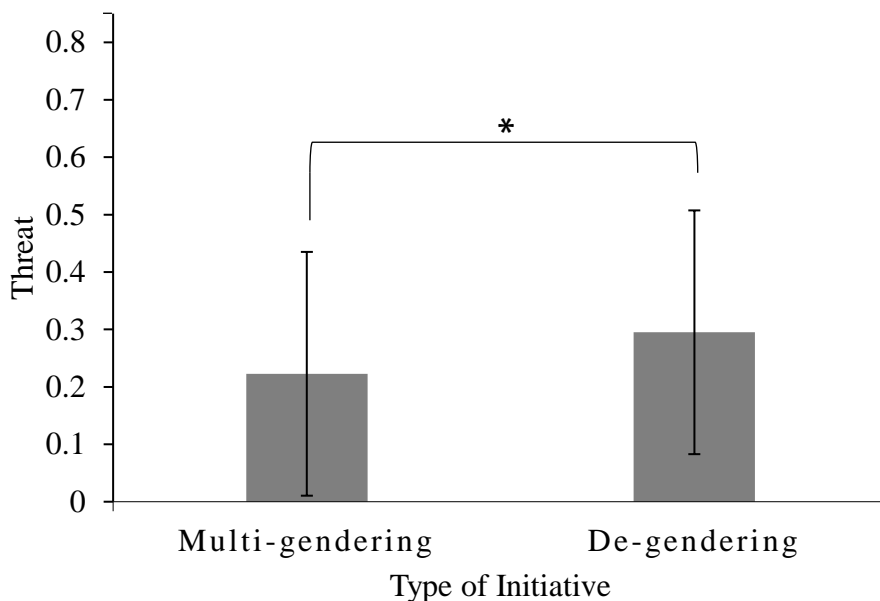
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remained significant. However, because sample size was large and the number of observations equal for each cell, the MANOVA was robust against this violation (O'Brien & Kaiser, 1985). Multicollinearity was not of concern since correlations between dependent variables were present but not excessive and the relationship between the dependent variables was roughly linear.

Findings showed that there was a significant main effect of type of initiative (multi-gendering vs de-gendering initiative), $F(2, 209) = 4.78, p = .009$, partial $\eta^2 = .044$. Analysis of the between-subject effects indicated no effect for challenge reactions but a significant effect for threat, $F(1, 210) = 5.95, p = .016$, partial $\eta^2 = .028$ (see Figure 1). The participants therefore reported significantly higher levels of threat reactions when being confronted with a de-gendering initiative ($M = 2.24$) than with a multi-gendering initiative ($M = 1.9$), but no significant difference was found for challenge reactions. This indicates that hypothesis 1b is met, while 1a is not.

Figure 1

Significant Effect of Type of Initiative on Threat



Note. $*p < .05$. Threat values are log10 transformed.

Moderated Relationship Between Challenge, Threat and Approach Attitude

To test the hypotheses that challenge reactions are positively associated and threat reactions negatively associated with approach attitudes and to investigate the moderating role of perception of gender inclusivity as a superordinate goal, a hierarchical multiple regression

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analysis (MRA) was conducted and necessary assumptions for this were tested. The inspection of the normal probability plot and scatterplot of standardised residuals indicated that the variables used, including the log10 transformed threat variable, met the assumptions of linearity, normality, and homoscedasticity of residuals. Outliers were left in the model, following the reasoning in the MANOVA procedure. High values of collinearity tolerance in the final regression model allowed an interpretation of the MRA's results.

Next, bivariate correlations between the four involved variables were employed in order to check for multicollinearity and to get a grasp of the relationship directions. These are displayed in Table 2.

Table 2

Means, Standard Deviations and Bivariate Correlations of the Variables Used in MRA

	<i>M</i>	<i>SD</i>	Threat	Challenge	Approach Attitude	Superordinate Goal
Threat	2.08	1.18	-			
Challenge	4.53	1.47	-.48***	-		
Approach Attitude	5.36	1.69	-.54***	.66***	-	
Superordinate Goal	5.09	1.87	-.32***	.46***	.67***	-

Note. * $p < .05$. ** $p < .01$. *** $p < .001$

On step 1 of the hierarchical MRA, challenge and threat significantly predicted approach attitudes, $R^2 = .50$, $F(2, 209) = 103.1$, $p < .001$. On step 2, the moderating role of perceiving gender inclusivity as a superordinate goal was added to the model as an interaction term with threat. This moderator variable accounted for an additional significant prediction of the variance, $\Delta R^2 = .13$, $\Delta F(1, 208) = 71.09$, $p < .001$. The three predictor variables combined significantly predicted approach attitudes, $R^2 = .63$, adjusted $R^2 = .62$, $F(3, 208) = 115.5$, $p < .001$, $f^2 = 1.67$ (for standardized regression coefficients (β) for each step of the hierarchical MRA, see Table 3).

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Table 3

Standardized Regression Coefficients and p-Values for the Regression Model

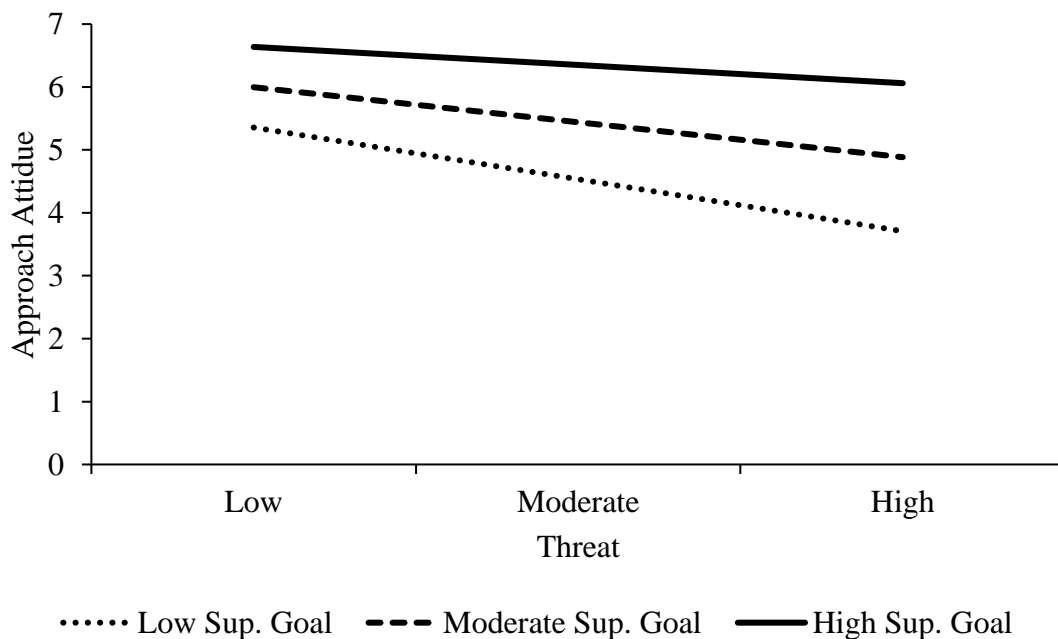
	Variable	β	<i>p</i>
Step 1	Challenge	0.53	<.001
	Threat	-0.27	<.001
Step 2	Challenge	0.36	<.001
	Threat	-0.86	<.001
	Threat*Superordinate Goal	0.64	<.001

Note. Threat variable was log10-transformed for the analysis.

When investigating the moderation effect visually, it becomes apparent that the more participants viewed gender inclusivity as a superordinate goal, the less threat was negatively associated with approach attitude. This can be seen in Figure 2.

Figure 2

Visualization of Moderating Effect of Perception of Gender-Inclusivity as a Superordinate Goal on the Relationship Between Threat and Approach Attitude



Note. “Sup. Goal” stands for the moderator variable called perception of gender inclusivity as a superordinate goal. For the visualisation purposes the moderator variable is divided in three categories (M – 1SD, M, M + 1SD). The same categorization was made for the three threat categories.

All in all, the results suggest that each variable has predictive utility, as can be seen from the significant p-values in Table 3. Challenge and threat significantly predict approach attitude, as does the interaction term, or the moderator. The moderator variable perception of gender inclusivity as a superordinate goal therefore significantly impacts the relationship of threat on approach attitudes. Therefore, the analysis supports hypotheses 2a, 2b and 2c.

Discussion

The purpose of this study was to gain a better understanding of the threat and challenge reactions towards two different gender-inclusive initiatives. Additionally, the relationships between these reactions and approach attitudes were investigated. In line with theoretical work from Morgenroth and colleagues (2021) about threat reactions in the context of gender-inclusive initiatives, this study showed that de-gendering initiatives elicit higher threat reactions than multi-gendering initiatives. However, the hypothesised effect of the multi-gendering initiative triggering more challenge reactions than the de-gendering initiative was not found. Furthermore, the results are consistent with findings that challenge reactions are generally positively associated with approach attitudes, whereas threat reactions are negatively associated with approach attitudes (Blascovich, 2013, Elliot & Harackiewicz, 1996; Scheepers, 2009). The moderating role of perceiving something as a superordinate goal on the relationship between threat and an approach attitude, in this case related to gender-inclusive initiatives, is in line with theory by Blascovich (2013). This study expands on previous research by introducing challenge reactions in the field of gender-inclusive initiatives.

The Effect of Type of Initiative on Threat Reactions

The effect that the de-gendering initiative elicited higher levels of threat was found as hypothesized and is consistent with theoretical works about threat and social identity. The different types of threat described by Morgenroth and Ryan (2021) and Branscombe and colleagues (1999) could contribute to understand this effect. Gender trouble situations are thought to trigger personal, group-based, and identity-based forms of threat (Morgenroth & Ryan, 2021). For instance, distinctiveness threat and personal status threat as types of group- and identity-based threat are theorized to play a key role in the context of this study. In the light of the present study, these subtypes of threat will be discussed more closely in the following.

Distinctiveness threat means that the clear difference between the binary gender/sex categories of women and men is threatened (Branscombe et al., 1999). Gender-inclusive

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initiatives blur the boundaries between the two and therefore reduce the distinctiveness of the groups (Morgenroth & Ryan, 2021). Especially in the de-gendering condition, the distinct group identity is undermined, leading to higher levels of threat for cisgender men and women (Morgenroth & Ryan, 2021). This effect needs to be further investigated through analysing the influence of highly identifying with one's gender/sex on one's perception of threat in the context of gender-inclusive initiatives (see Morgenroth et al., 2021).

Personal status threat might be perceived by cisgender women and men who identify highly with their gender/sex. They feel threatened in their personal status and therefore oppose attempts to work towards gender-inclusivity. Morgenroth and Ryan (2021) theorize that personal status threat might be more strongly elicited by de-gendering initiatives. This is because the binary gender/sex categories are abolished and gender/sex-related status, like woman- or manhood, is threatened (Morgenroth & Ryan, 2021). Therefore, we recommend future research to investigate the effect of gender-inclusive initiatives on personal status threat by asking more specific question about status-related concepts such as woman- and manhood (see Morgenroth et al., 2021).

Distinctiveness threat and personal status threat might therefore account for a big part of the found effect in this study. As opposed to that, the role of safety threat as a type of personal threat is less clear in the context of this study. Safety threat means a more physical than symbolical form of threat that mostly women experience in cases of absence of women-only spaces (Morgenroth & Ryan, 2021). These spaces, however, arguably also include changing rooms. In the articles used in this study, it was not reported whether changing rooms were also affected by the gender-inclusive initiative. It is therefore not clear whether participants interpreted such a change and as a result faced safety threat. If this was the case, safety threat could also have contributed to the effect of the gender-inclusive initiatives on threat. Follow-up studies are therefore advised to include clear statements of whether changing rooms are also de-gendered and multi-gendered and to investigate possible safety threat perceptions.

Factors Influencing Challenge and Threat Reactions

In this study, low levels of threat and rather high levels of challenge were reported. A factor leading to this and potentially explaining the muted effect on challenge reactions could be the context this gender-inclusive initiative is situated in. Morgenroth and colleagues (2021) have indicated in their research, using the same manipulation method, that the outcome of this initiative may be rather inconsequential for the respondent. This is on the one hand because the person might not go shopping at H&M. On the other hand, these changes would not have

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too big of an impact on them, since they merely imply a change in store organization. Based on the types of threat categorized by Morgenroth and Ryan (2021), only a few types of threat are theorized to follow from such a gender-inclusive initiative. If the gender-inclusive initiative would entail more drastic changes to not only the surroundings, more adaptations in behavior, habits, emotions and cognitions would be required and other types of threat would potentially be elicited (Morgenroth & Ryan, 2021). For instance, all-gender toilets (Outten et al., 2019) may be more consequential and therefore trigger more threat and challenge. More insightful results about specific types of threat, namely safety threat, could also follow from such research.

Relationship of Challenge and Threat Reactions on Approach Attitudes

As expected, challenge reactions significantly predicted approach attitudes in the positive direction. These results are consistent with the findings of Scheepers (2009). In another study, it has been shown that challenge is associated with more functional coping (Ellemers et al., 1997). Such functional coping strategies are displayed when approaching a problem which is a potential source for threat, suggesting an openness for change and a constructive attitude. This enables individuals to adequately react towards gender-inclusive initiatives and to not immediately oppose to them. The present study therefore suggests that challenge may be an important concept in the domain of gender-inclusive initiatives. This insight is valuable because gender-inclusive initiatives that trigger challenge could be used as catalysts of social change.

The results of the present study also suggest a negative relationship between threat and approach attitudes. These findings are in line with earlier observations in other areas of social identity (Scheepers, 2009). Social identity theory suggests that people who experience more threat caused by outgroups are more motivated to protect their ingroup identity and therefore oppose or remove the source of the threat (Outten et al., 2019). Participants who felt more threatened were therefore less likely to have a welcoming attitude towards gender-inclusive initiatives. Social identity theory suggests that threatened individuals would reinforce the gender/sex binary in order to minimize personal, group-based and identity threat (Morgenroth & Ryan, 2021). This is done by trying to maintain the status quo and therefore refraining to take part in approaching the problem. Morgenroth and Ryan (2021) theorized that all forms of personal, group-based and identity threat lead to opposition to gender-inclusive initiatives and approval of initiatives that strengthen the gender/sex binary. Further research is advised to investigate all specific types of threat (e.g., distinctiveness threat, personal status threat) and see how and in which intensity they relate to opposition and approach. A method of assessing

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the different threat reactions implicitly would be valuable in this context. For this goal, more implicit concepts associated with specific types of threat can be measured. For instance, a reaction on distinctiveness threat is identity uncertainty (the feeling of insecurity what it means to be a woman or a man; Morgenroth & Ryan, 2021). Concepts like this could still be assessed as self-report measures and then hint at specific types of threat to be present (Wagoner et al., 2017). However, such concepts would first have to be shown to be exclusively elicited by certain kinds of threat. This would then enable us to understand the elements of an initiative that evoke threat and adapt them accordingly.

The Moderating Role of Perceiving Gender Inclusivity as a Superordinate Goal

This study further found a significant moderation effect of the perception of gender inclusivity as a superordinate goal on the relationship between threat reactions and approach attitude. This shows that if gender inclusivity is perceived as an overarching social goal, feeling threatened in one's identity is associated with more prominent approach attitudes towards gender-inclusive initiatives than if it's not. This confirms that people who perceive gender inclusivity as an overarching social goal will be more motivated and energized to approach this issue, even if their own social identity is under threat. This effect is not present for individuals who do not hold this goal. Perceiving something as a superordinate goal is a process that has been of interest in the field of social identity theory for a long time, indicating that it can bring groups together (Sherif, 1958). If highly threatened individuals in a society can therefore be brought to the conclusion that it is a highly desirable goal to achieve gender inclusivity, acceptance for initiatives aiming at reaching this goal could be heightened. This insight is a first step towards understanding the complex nature of this social phenomenon. Future research needs to further investigate important motivational constructs in the context of social identity and look into the hierarchical nature of goals (Blascovich, 2013; Scheepers, 2009).

Study Limitations and Directions for Future Research

The findings in this study contribute to the understanding of reactions towards gender-inclusive initiatives, providing insights into this underexamined field. However, certain limitations of this study should be considered when interpreting the results. Generally, this study analysed the responses from predominantly cisgender people, therefore representing a cisgender-centric view on the topic of gender-inclusive initiatives. Further research needs to complement this by investigating the needs and preferences of people identifying beyond the gender/sex binary concerning gender-inclusive spaces.

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Due to lacking research, it is unclear to which extent challenge forms a key factor in the context of gender-inclusive initiatives. The current study only roughly outlines the involvement of challenge reactions, however, does not allow for specific conclusions. Furthermore, challenge, as well as threat, has been defined in a lot of ways, making it harder to interpret results (Branscombe et al., 1999). The present study took one definition of threat and challenge reaction from the subscales of the stress appraisal measure by Peacock and Wong (1990) and adapted the items. These items investigated whether the participants would feel anxious or excited and whether the initiative will have a negative or positive outcome respectively. These questions only cover the surface of what threat and challenge constitute. This can be illustrated by looking at different elements that are subject to threat. Ethier and Deaux (1994) discussed that in some situations only parts of one's identity are threatened, in others the identity's very existence is under threat. In other cases, the ideas or values that are connected to the identity are under scrutiny. The latter seems to be the case in the context of gender/sex, since it is about associated ideas and values assigned to different categories (Ethier & Deaux, 1994). Therefore, threat in the context of gender-inclusive initiatives might have to be treated differently than in other fields of social identity theory. Hence, the present study might measure threat and, following the same reasoning, challenge too generally. The results of the present study therefore give a rough outline about reactions on gender-inclusive initiatives. Future studies need to investigate different types of challenge and threat more in depth (following Morgenroth & Ryan, 2021) in order to paint a more accurate picture.

There are also some methodological limitations to consider. First, this study assessed all measures with explicit statements in a self-report questionnaire, leaving potential for social desirability biases (Krumpal, 2013). A suggestion for future research is to complement self-report measures with implicit measurements of threat and challenge because they might offer different insights than self-report measures. Studies following the biopsychosocial model by Blascovich and Tomaka (1996) assessed threat and challenge reactions by means of cardiovascular indicators (Blascovich & Mendes, 2000; Scheepers, 2009). Such studies would provide valuable insights into designing the most effective gender-inclusive initiatives with the aim of catalysing social change.

Second, in order to reach the number of required respondents, the convenience sampling method was chosen, even though there are methodological shortcomings (Etikan et al., 2016). Third, the threat variable was highly skewed, making a log₁₀-transformation necessary. However, as researchers point out, the utility of these transformations are questionable, since the variability of data cannot always be reduced (Feng et al., 2019).

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Fourth, the highly educated sample in this study might have an especially open attitude towards gender inclusion issues, as was also found for same-sex relationships (Ohlander et al., 2005). In general, future studies are advised to investigate reactions on gender-inclusive initiatives with more varied samples beyond the Western, educated, industrialized, rich, and democratic participants (WEIRD participants). Such samples are not representative of the general population and limit the external validity. Lastly, younger people have been shown to hold more liberal attitudes towards gender inclusivity (Perales et al., 2018). This is a possible explanation for the low threat values in this study's sample, which contained predominantly young people.

Study Implications

The results of this study suggest that de-gendering initiatives have a more threatening effect on recipients than multi-gendering initiatives. Since threat has been shown to negatively predict approach attitudes towards the topic of gender-inclusive initiatives, this has implications for realisations of such initiatives. Based on these findings, multi-gendering initiatives, compared to de-gendering initiatives, might generate less resistance and thus less reluctance to actively work towards a gender-inclusive future. However, this still poses problems because fundamental difficulties with the categorisation of genders are not abolished. In multi-gendered contexts, gender categorisation would be perpetuated accompanied by phenomena such as stereotyping and discrimination. This happens because gender/sex can be still performed in line with the binary gender categories and consequently strong ingroup outgroup dynamics are created or upheld (Morgenroth & Ryan, 2021). In order to move away from this, de-gendering initiatives theoretically hold more potential, however, they also trigger more threat reactions in the short term. Further research therefore needs to establish the point from which onward the higher short-term obstacles elicited by de-gendering initiatives would be justified to complete the move away from the harmful gender/sex binary. Furthermore, a suggestion for further research is to also investigate how levels of threat and challenge reactions change when the numbers of gender/sex-categories in multi-gendering initiatives are increased beyond the three categories used in this study.

This study expanded on the context in which challenge reactions are used and generated the insight that they predict an approach attitude towards gender inclusivity. Challenge reactions, as opposed to threat reactions, have not yet been researched in the context of gender-inclusive initiatives. Challenge reactions were taken into the study design due to them being used in the context of social identity theory, for example to investigate reactions on status stability (Scheepers, 2009). In the present study, this novel aspect explores

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not only the threats but also the possibilities that gender-inclusive initiatives hold and thus allows for more constructive insights to follow. Hence, if future research focuses on understanding challenge reactions, policy makers could use these insights to create effective gender-inclusive initiatives.

This study further offers general directions that the perception of gender inclusivity as a superordinate societal goal could play a key role in the process of establishing gender-inclusive initiatives. If people were to see gender inclusivity as an overarching social goal, resistance to initiatives aimed at including non-binary people could be minimised. With increasing public visibility of people identifying beyond the binary and awareness raising through education and campaigning, attitudes could shift toward this direction. This facilitates threatened individuals to overcome their avoidance and to actively work towards a more gender-inclusive future.

Conclusion

As societal views of the gender/sex binary have been changing, understanding the processes behind gender-inclusive initiatives is of crucial importance. By looking at threat and challenge reactions and how they related to approaching gender inclusivity and investigating gender inclusivity as a superordinate goal, this study has contributed valuable insights in this new field. We found that de-gendering gender-inclusive initiatives elicited higher levels of threat than multi-gendering ones, with this difference being absent for the levels of challenge. Furthermore, threat negatively predicted approach attitudes to gender inclusivity, while challenge did so positively. Importantly, perceiving gender-inclusivity as a superordinate goal moderated the relationship between threat reactions and approach attitudes. Knowledge about which elements of gender-inclusive initiatives elicit approval and opposition is essential, as it enables an effective use of initiatives to take steps towards a more gender-inclusive future. The present study indicates such implications of the results paired with directions for further research. Through that, we hope to stimulate further research in this highly topical field.

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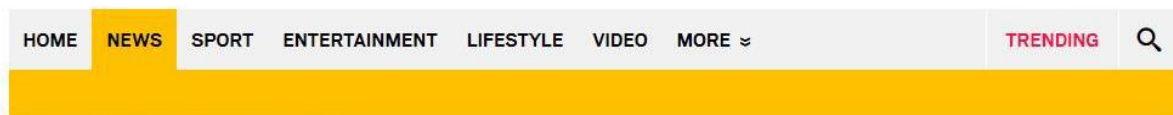
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Appendix A

De-gendering and Multi-gendering Articles

De-gendering condition



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

This change will take place among all European branches



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



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

This change will take place among all European branches



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.

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Appendix B

Adapted items from the Stress Appraisal Measure for threat ($\alpha = .75$) and challenge ($\alpha = .79$; Peacock & Wong, 1990).

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

Items on ‘challenge’:

1. I think this policy will have a positive impact
2. I am eager to tackle the inclusion of non-binary people by implementing such a policy
3. I think we all can become stronger by implementing such a policy
4. I am excited about the outcome of this policy

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Appendix C

Complete country distribution

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