Reactance to (or Acceptance of) Stereotypes
Implicit and Explicit Responses to Group Identity Threat

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Abstract. We propose that reactance to threats to individual freedom can be broadened to include threats to group identity and its associated values and norms. In two studies we primed women and men with (counter) stereotypical roles and measured implicit activation of reactance versus acceptance goals, task persistence, and support for system justification beliefs and collective action. Although we found no direct evidence of reactance activation, men activated acceptance when primed with gender stereotypes, whereas women did not. Further, traditional women legitimize the system after counter-stereotypical exposure, whereas progressive women (feminist identifiers) persist more in solving a task stereotypically favoring men under these conditions (Study 1). Finally, nonsexist women show higher support for collective action after stereotypical exposure when threat to their identity is blatant (Study 2). We argue that reactions to identity threats depend on the content of that identity so that the specific form reactance takes may depend on the group norms being threatened.

Keywords: group resistance, social reactance, implicit measures, social roles

In this paper we propose that reactance to threats to individual freedom can be broadened to include threats to group identity and its associated values and norms. We argue that reactions to such threats will depend on the content of that identity so that the specific form reactance takes may depend on the group norms being threatened. We therefore aim to extend the concept of reactance beyond threats to individual freedom, narrowly defined.

Psychological reactance is a motivational state defined conceptually as an impulse to restore behavioral freedoms that are perceived to have been threatened or lost (Brehm, 1966). When a person's freedom is threatened they may search for a strategy to restore it. As well as behavioral reactions, the reactance literature also describes indirect, "psychological" coping strategies for reestablishing freedom (e.g., Worchel & Brehm, 1971). Direct restoration of freedom could consist of reaffirming the threatened choice (Miron & Brehm, 2006), whereas indirect strategies include increasing the attractiveness of the threatened alternative, derogating the threatening agent, or exercising freedom in a different context.

Most previous research on reactance adopts an individualistic perspective. In line with Worchel (2004), we propose that psychological reactance can be extended to "group reactance" when a relevant social identity is salient. In a situation threatening to their social identity, people may consider the interests of their group. This may be because group interests overlap with personal interests, but also when the group identity is an important part of the self (i.e., high identifiers). We argue that group reactance may be an important motivational state that encourages group resistance, understood as behavioral or psychological tendencies to defend the interests of the group.

Further, because a threat to one's freedom does not necessarily provide scope for its direct restoration, we examine reactance that occurs at the implicit psychological level. Specifically we examine the semantic activation of reactance versus acceptance goals in response to a potentially threatening situation for women, namely exposure to stereotypical (vs. counter-stereotypical) gender roles. These are assumed to be threatening, given that women's status disadvantage is associated with stereotypic roles. However, this threat to group freedom will also depend on the content of group identity (values, ideology) and is more likely to be true for feminist women than those who are more traditional and thus embrace gender stereotypic differences.

Broadening Reactance: From Individual to Group Reactance

Reactance is premised on the perception of threat to freedom to pursue one's goals (e.g., Dillar & Shen, 2005). Freedoms can be understood as specific beliefs about what a person can and cannot do (Miron & Brehm, 2006).
From our perspective, freedom can be more broadly defined in terms of the content of identity (values, norms) that is threatened in a specific situation. It is plausible that a motivational response to restrictions of freedom depends on self-definition. This can be analyzed from an individual (personal identity) or group (social identity) perspective. Thus, threat to freedom of self raises the issue of how the self is conceptualized, and this can include the group self outlined in social identity and self-categorization theory (Tajfel & Turner, 1986; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). We expand the classical reactance definition to study reactance-related processes when social identity is threatened. Although threats to identity caused by negative stereotypes are not always framed in such terms, they often imply threats to (group) freedom that render the insights of reactance theory highly relevant.

Because the personal relevance of the free behavior subject to threat is a key variable that enhances psychological reactance (Worchel, 1972), the extent to which the group is relevant for the self (i.e., high identification) could also determine the reactance to identity threats. Moreover, the content of that identity would determine what freedom is being threatened. For instance, gender stereotypes threaten women's rights and freedoms and therefore could trigger reactance, but only in those women who perceive this as a threat (e.g., feminists). By contrast, traditional women who endorse the status quo for gender relations (cf., Becker & Wagner, 2009; Jost & Kay, 2005) will be less likely to perceive stereotypes as threatening. For them, the counter-stereotypes are more likely to be threatening as they challenge their own identity content and goals, and their freedom to be who they want to be — a traditional woman. In both cases, the group perceives that their freedoms are being threatened, but the content of those freedoms is determined by their specific group identity (traditional women vs. feminist).

Some previous research on reactance has already shown the influence of group membership on individual concerns. Snyder and Wicklund (1978) found that reactance can occur when the individual is threatened with a self-categorization that implies a restricted behavior. Such categorization threats (see also Ellemers, Spears, & Doosje, 2002) might lead people to distance themselves from the imposed social category and reconfirm their preferred identity (Barreto & Ellemers, 2002). We argue that depending on the context and antecedents, group identity could also enhance, rather than attenuate, the reactance motivation when the identity of the group as a whole is threatened, and when that group identity is important to the individual. Therefore, the same group concern that leads a group member to abandon their personal issues for collective interests can also promote “group” reactance when the group’s freedom is threatened in some way.

For instance, Kray and colleagues (Kray, Reb, Galinsky, & Thompson, 2004; Kray, Thompson, & Galinsky, 2001) found that when gender stereotypes were activated implicitly, women confirmed them in a negotiation context, but when stereotypes were activated explicitly, women manifested reactance by negotiating more aggressively and successfully than men, albeit only if they had more or comparable power to their male negotiation partners. This confirms the assumption from reactance theory that people have to perceive that they are able to exercise their freedom if they are to reassert it. Thus, the perception that the threat to freedom or the restriction is absolute may attenuate reactance, and lead to acceptance of the situation in comparison to a situation in which some taste of freedom has been given (Laurin, Kay, & Fitzsimons, 2012).

Group-based actions (e.g., collective actions) aimed at the restoration of freedom or control could be considered as more effective than “individual” action to the extent that groups are perceived having a degree of collective efficacy (Brewer, Hong, & Li, 2004). Group-based control restoration theory (Fritsche, Jonas, & Kessler, 2011; Fritsche et al., 2013) proposes that defining the self and acting in terms of a homogeneous and agentic group identity can serve to restore a generalized perception of personal control. Thus, threats to control motives (i.e., restrictions of freedoms) can lead to stronger group identification, ingroup support, and defense (Fritsche et al., 2013). In a similar vein, we assume that threat to freedoms of the ingroup can activate reactance-based goals and tendencies to act against the restrictions of freedoms, restoring a sense of control.

To summarize, similar to psychological reactance at the individual level, group reactance should also be modulated by a series of situational and motivational variables, such as the importance of threatened freedoms for the group identity or the perceived difficulty to restore a certain type of freedom. In particular, content of identity (i.e., traditional vs. progressive) and strength of group identification, as an indicator of the importance of the group identity to the self, are likely to moderate how threat to group freedoms is experienced with consequences for group reactance.

Social Resistance to Threats to Social Identity as Group Reactance

In conceptualizing group reactance it makes sense to consider the broader literature on the effects of threats to social identity, which provides further insights into the forms the group reactance might take. Although the identity threats are not always conceptualized in terms of threats to group freedom as such, we argue that reactions to such threats can be analyzed and understood as a form of group reactance.

Research on social identity threat has shown that group members can respond to a threatening situation with a broad range of (re)actions. Among the different strategies they can adopt, group members can try to improve the image of their group or to derogate the source of threat, typically the outgroup (e.g., de Hoog, 2013; Hewstone, Rubin, & Willis, 2002; Mullen, Brown, & Smith, 1992; Spears, Jetten, & Doosje, 2001; Tajfel & Turner, 1979; Turner, Brown, & Tajfel, 1979). However, there is also literature supporting the idea that subordinate groups might sometimes accept or even legitimize their situation (Jost & Kay, 2005; Moya, Glick, Expósito, de Lemus, & Hart, 2007), which is consistent with the caveat that reactance
requires the power to express it. In previous studies examining gender identity threat we have shown that women contest stereotypes by using implicit ingroup bias to resist their disadvantage (de Lemus, Lupiáñez, Spears, Bukowski, & Moya, 2015; de Lemus, Spears, Bukowski, Moya, & Lupiáñez, 2013; van Breen, Spears, Kuppens, & de Lemus, 2015). We used an associative procedure to expose participants to stereotypical versus counter-stereotypical gender-role associations, and measured reactions in a subsequent categorization task. Results indicated that women react to sexist role relations at the implicit level showing ingroup bias (i.e., favoring their ingroup over the outgroup), and reversing implicit gender stereotypes when they have been exposed to stereotypical social roles. Further, exposing participants to stereotypic role associations promoted negative emotions in women as well as increased persistence on a subsequent stereotype-relevant task.

Overall, these results supported our motivated resistance hypothesis. That is, exposure to traditional stereotypes can activate resistance-related goals in women, and increase ingroup bias to contest their disadvantaged position. This effect can be conceptualized as a group-level form of reactance: threats to group freedoms implied by traditional stereotypes led women to affirm a more positive identity when they have been exposed to stereotypical social roles. Further, exposing participants to stereotypic role associations promoted negative emotions in women as well as increased persistence on a subsequent stereotype-relevant task.

**Research Overview**

We assumed that reactance to (or acceptance of) stereotypical versus counter-stereotypical roles can occur not only at an explicit level (e.g., support for collective actions) but also at an implicit level (e.g., semantic activation of reactance-related concepts; see also, Sittenhaler, Steindl, & Jonas, 2015). Further, because activating (counter) stereotypes might be perceived as a threat to the system depending on participants’ own beliefs (e.g., Jost & Kay, 2005), we measured gender-specific system justification as a dependent variable. Finally, we analyzed the effects of (counter) stereotypical exposure on a behavioral task measuring persistence as a motivational outcome (i.e., those who perceive that their identity is being threatened should be more motivated to solve the task; de Lemus et al., 2015). In Study 1 we compare the responses of women versus men after (counter) stereotypical exposure to social roles (e.g., women-cleaner, men-director, and vice versa).

Because the status quo benefits men (vs. women) as a group, we expect the results to vary between genders. Exposing women to stereotypical roles should therefore activate an identity threat for them as members of the disadvantaged group (inter alia challenging their rights and freedoms). We expect that women will show implicit activation of reactance-related concepts and support explicit social resistance (i.e., collective action) when they are exposed to extensive stereotypical role associations. By contrast, we expect men to activate acceptance of such stereotypical associations that favor their group.

However, because members of low status groups might vary in their identification with the group we examine the role of identification with women (gender group) and feminist (politicked identity) as moderators of the effects on implicit and explicit stereotype reactance (e.g., support for normative and radical collective action). Similarly, we examine whether sexism (Glick & Fiske, 1996) moderates these results as women might endorse (or not) such status legitimizing beliefs. Politicized women (feminists) and low sexism women are more likely to perceive stereotypes as illegitimate restrictions (Spears et al., 2001). Hence we expect that they would show more reactance (Sittenhaler et al., 2015). By contrast, women who endorse a traditional view of their identity or gender relations (e.g., traditional or sexist beliefs) might paradoxically see counter-stereotypes as illegitimate, showing some explicit or implicit reactance to this threat to their values and preferences, and support more system justifying beliefs. In Study 2 (all female participants) we made the identity threat for women stronger and more salient and predicted that a general trend to show reactance to the traditional gender stereotype should be observed at the implicit and explicit level.

**Study 1**

In Study 1 an associative procedure was used to expose male and female participants to stereotypical versus counter-stereotypical gender roles as a way of activating a threat to their identity and group freedoms.

**Method**

**Participants and Design**

University students (N = 121; 61 women and 60 men) from the Jagiellonian University (Krakow, Poland) participated in the experiment in exchange for credits or money. The design used is a 2 (Exposure: stereotypical vs. counter-stereotypical) × 2 (Participants’ gender: women vs. men) × 2 (Content: resistance vs. acceptance) mixed design, with repeated measures on the Content factor.

**Procedure and Materials**

The participants were told that the aim of the study was to examine general decision-making processes in a social context. Identity threat was manipulated indirectly by extensively exposing participants to (counter) stereotypical information. Group (as women, feminist, men) identification and sexism were measured as moderators. The dependent
variables were: Activation of reactance/acceptance goals LDT, task persistence, collective actions, and system justification. All the materials are presented below in the order in which they appeared during the experiment.

**Stereotypical Versus Counter-Stereotypical Exposure Procedure**

In the exposure phase pictures of various women and men with emotionally neutral expressions in three different contexts were presented and participants had to assess whether the person appearing was male or female (see de Lemus et al., 2013). The same three women and three men appeared in two different contexts—a bathroom with cleaning equipment (representing a stereotypically female role) and in an office behind a big desk with a “director” sign on it (a stereotypically male role). In a control context (an outdoor setting) two different men and women appeared.

The task was to categorize persons who appeared in an indoor setting (i.e., bathroom or office) as either a man or a woman by pressing an appropriate key. If the person appeared outdoors (10% of trials), participants were to withhold responses. The aim of this instruction was to focus attention on both the gender of a target person and the context of its appearance without referring directly to gender-target association (de Lemus et al., 2013; Jiménez & Méndez, 1999).

Participants were randomly assigned to one of the two exposure conditions. In the stereotypical exposure condition 90% of trials were consistent with a stereotype and a person target appeared in their stereotypic gender role. The counter-stereotypical exposure condition paralleled this distribution of trials but reversing the gender of targets (i.e., women-office, men-cleaning). In the neutral context the proportion of men and women appearing was held equal (50/50%).

Each trial began with an image and a red square-shaped fixation point appearing for 1,000 ms where the person would appear. Then, the target person appeared superimposed on the context image so that their head was situated at the fixation point. The image remained on the screen for 2,000 ms or until the participant’s response. The number of trials was 160 in total.

**Lexical Decision Task: Reactance Versus Acceptance Goal Accessibility Measure**

The implicit activation of reactance versus acceptance goals was measured using a Lexical Decision Task (LDT), in which reactance, acceptance, and neutral words were presented. The task was to categorize the letter strings appearing as an existing Polish word or not, as quickly and accurately as possible. Target words (18) were selected from a pretest (N = 30; 45 words) based on their relation to either resistance or acceptance goals: 6 of them related to resistance goals (oppose, reject, fight, rebel, undermine, strike), 6 related to acceptance goals (agree, yield, accept, obey, maintain, adopt), and 6 neutral (paint, dress, run, draw, swim, tell). The frequency of words used was controlled by means of Subtlex.pl, which estimates the Polish word frequency based on film subtitles (Mandera, Wodniecka, & Keuleers, 2012). Speed of categorization of resistance and acceptance words was pretested and there was no difference between them (F < 1, ns).

The LDT consisted of 4 blocks of 36 trials with an equal proportion of words and nonwords. The misspelled target words served as nonwords. Each trial was composed of 12 words related to acceptance goals, 12 words related to resistance goals, and the remaining 12 were neutral. At the beginning of each trial a fixation point (+) was presented for 500 ms. Then a target word/nonword appeared on 2,000 ms and if a person did not respond in that time, a trial was missed.

**Task Persistence Measure**

As a measure of participant persistence we introduced a problem-solving task adapted from Baumeister, Bratslavsky, Muraven, and Tice (1998) and de Lemus et al. (2015). The task was to redraw three figures appearing on the screen. Each participant was told that this was a test that measured spatial intelligence. The figures appeared in sequence from the easiest to draw in conformity with the rules to – seemingly – the most difficult. In reality the last figure was unsolvable. The participants’ task was to trace a figure that appeared on the screen following the rules: participants were not allowed to remove the pen once placed on a paper and to retrace any lines. The time participants spent on solving the last figure was recorded and served as an indicator of persistence. Although they were told that there was no time limit, 10 min was a priori set as a maximum time when they were asked to stop by the experimenter.

After they had completed the computerized task, participants were asked to fill out some printed questionnaires. Different questionnaires were assigned to men and women including group identification, collective action, and gender-specific system justification scales. Unless otherwise stated items used Likert-type response options ranging from 1 (strongly disagree) to 7 (strongly agree).

**Identity Questionnaires**

Scales measuring identification with women (α = .83), with feminists (α = .93), and with men (α = .77) were measured by four items adapted from Doosje, Ellemers, and Spears (1995): I identify with this group; I have strong ties with this group; this group is an important part of their self-image; being a member of this group important for me.

**Collective Action**

Collective action tendencies to support women’s rights and gender equality in general were assessed with 11 items.
(adapted from Taush et al., 2011) presenting examples of normative (e.g., active lobbying on women’s issues, \( x = .81 \)) and radical actions (e.g., blackmailing unfavorable officials, \( x = .60 \)). The participants were asked to indicate to what extent they support these actions from 1 (not at all) to 11 (very strongly).

**System Justification Scale**

Participants completed a System Justification Scale (\( z = .70 \)) consisting of seven items (e.g., “Society is set up so that men and women usually get what they deserve,” adapted from Kay & Jost, 2003).

**Ambivalent Sexism Inventory**

Finally, participants were asked to complete the Ambivalent Sexism Inventory (Glick & Fiske, 1996; Polish adaptation: Pietrzak & Mikołajczak, 2011) which measures hostile and benevolent sexism attitudes (22 items, 11 items each). Response option ranged from 0 (strongly disagree) to 5 (strongly agree). The hostile sexism scale (\( x = .82 \)) taps negative attitudes and stereotypes about women (e.g., “Women are too easily offended”) whereas the benevolent sexism scale measures more positive but stereotypic views of women (\( x = .86 \); e.g., “Women have a superior moral sensibility”). This measure was added to the study after five participants had already completed the experiment, therefore they did not complete this questionnaire.

**Results**

Data from eight participants was excluded from further analyses because they did not learn the key associations properly or their accuracy was significantly lower (two participants with 25% and one with 68% of accuracy) on the exposure task leaving 113 (female \( n = 54 \); male \( n = 59 \)) participants for analyses.

**Goal Activation**

As a result of stereotypical exposure higher accessibility of reactance (vs. acceptance) goals was predicted for women whereas higher accessibility of acceptance (vs. reactance) was predicted for men. Erroneous classifications of all the target words were excluded from further analyses (4.53% of the trials). In order to normalize the distribution of RTs obtained we used the criterion of cut-offs over a maximal and minimal value, which was 2,000 and 200 ms (Ratcliff, 1993) (0.26% of trials excluded). The mean RTs in LDT for the words (excluding the nonwords and the errors) were subjected to a 2 (Exposure: Stereotypical vs. Counter-stereotypical) \( \times 2 \) (Goals: Acceptance vs. Reactance/resistance) \( \times 2 \) (Gender: Women vs. Men) mixed ANOVA. Results showed a significant interaction of Exposure \( \times \) Goals, \( F(1, 107) = 6.77, p = .01 \). The analysis of this interaction indicated that participants reacted faster to acceptance (\( M = 834 \)) versus reactance (\( M = 874 \)) goals in the stereotypical exposure condition, and no differences were found after the counter-stereotypical exposure, \( F < 1, ns \). Although this interaction was not moderated by participants’ gender, \( F < 1, ns \), contrary to predictions, we decided to conduct the analyses separately for men and women to seek some evidence of reactance in women. We found that the Exposure \( \times \) Goals interaction was only significant for men, \( F(1, 55) = 4.99, p = .03 \), but not for women, \( F(1, 52) = 2.035, p = .16 \). That is, men do activate acceptance after stereotypical exposure, whereas women do not show this pattern. This is in line with our a priori hypotheses about gender differences (stereotype threat favors men but not women). This result was not moderated by participants’ sexism, or group (women, feminist, men) identification, all \( Fs < 1.9, ns \).

**Task Persistence**

To analyze the effects of the manipulations on the persistence task we conducted a 2 (Exposure: stereotypical vs. counter-stereotypical) \( \times 2 \) (Gender: Women vs. Men) ANOVA, on the time spent trying to solve the unsolvable drawing task. Results showed a significant main effect of gender, \( F(1, 107) = 26.99, p < .001 \), indicating that women (\( M = 656.529 \)) spent more time than men (\( M = 303.143 \)), suggesting that they were more motivated to solve it. This was not moderated by exposure, \( F < 1, ns \). However, when we used hostile sexism (HS) as a potential moderator controlling for benevolent sexism (BS), a significant effect of exposure emerged, \( F(1, 95) = 7.05, p = .009 \), indicating that participants in general invested more time in trying to solve the task after the counter-stereotypical exposure (\( M_{counter} = 509.565; M_{stereotypical} = 458.256 \)). This unexpected effect was qualified by a significant interaction of Exposure \( \times \) BS, \( F(1, 95) = 7.19, p = .009 \) (Figure 1). Simple slope analyses showed that the only low HS participants showed higher persistence after the counter-stereotypical exposure (low HS: \( B = .31, p = .02 \); high HS: \( B = -.20, p = .11 \)). Task persistence was not moderated by participants’ group (women, feminist) identification, all \( Fs < 2, ns \).

**System Justification**

We analyzed the extent to which participants’ support for gender-related system justifying beliefs was affected by the manipulation. When the female and male samples were analyzed together, only a main effect of gender of participants emerged, \( F(1, 107) = 12.93, p < .001 \), such that

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1 Analyses of multivariate outliers with Mahalanobis \( D^2 \) including exposure, HS, BS, identification with women and feminists as predictors, showed that there were no outliers in Study 1 or 2 (no cases with a Mahalanobis \( D^2 \) probability less than .001).
men ($M = 4.76$) in general justify the system more than women ($M = 4.10$) do. All other effects were not reliable, all $F$s < 1.2, $ns$.

Further, we were specifically interested in women’s responses as they are more affected by a restriction of their possibilities to perform different social roles. We hypothesize that women’s reactions should be moderated by their identification with the group. Specifically, we predicted that traditional (or sexist) women would support more system legitimizing beliefs after counter-stereotypes as these impose a threat to their values. Considering the mixed content of gender identity (Becker & Wagner, 2009; Condor, 1986; van Breen, Spears, Kuppens, & de Lemus, 2015), in order to distinguish more traditional women from those who endorse more progressive identities (i.e., feminists), it is necessary to (respectively) control for both identification with women and identification with feminism in these analyses. Thus, to assess the (interactive) effect of identification with women, we include women’s identification as a continuous factor while controlling for feminist identification (as a covariate). We found a significant Exposure $\times$ Women’s identification interaction, $F(1, 48) = 7.38, p = .009$, that held significant when controlling for Feminist identification, $F(1, 47) = 9.08, p = .004$ (Figure 2). Simple slope analyses showed that only high women identifiers supported the system more in the counter-stereotypical condition, $B = .32, p = .04$ (low women identifiers: $B = .13, ns$). Feminist identification itself had an almost significant negative effect on system justification as a covariate, $F(1, 47) = 4.04, B = -.26, p = .05$, that is, the more women identified with feminism, the less they supported system justifying beliefs regardless of exposure. Overall, these results suggest that more traditional women’s identification (in the sense that variance accounted for by feminist inclinations was removed from the dependent variable), the more system justifying motives were activated when primed with a potential threat to the stability of the system (i.e., a predominance of counter-stereotypical roles).

**Collective Action**

Regarding support for collective actions to improve the status of women in society, because we were interested in analyzing the moderating role of group (women, feminist) identification, we analyzed the results for women separately. Specifically, we predicted that politicized women (i.e., feminists) would support more collective action, in line with previous research (Becker & Wagner, 2009). Therefore, we analyzed the impact of (counter) stereotypical exposure on collective action, with feminist identification as a moderator while controlling for identification with women. We found a significant multivariate effect of the exposure manipulation, $F(2, 47) = 7.89, p = .002$, that only held significant for normative collective action at the univariate level, $F(1, 48) = 13.94, p = .001$, but not for radical actions, $F < 1, ns$. Specifically, women showed more support for normative collective action after the stereotypical exposure ($M = 7.02$) than the counter-stereotypical one ($M = 6.38$). Moreover, this result was moderated by feminist identification while controlling for identification with women (Figure 3a), $F(1, 48) = 12.13, p = .001$. Simple slope analyses showed that the low identifiers show more support for normative collective action after the stereotypical exposure ($B = .58, p = .001$) than the counter-stereotypical one ($B = .26, ns$). This result suggests that whereas high feminist identifiers always show a high tendency to support collective action as a form of resistance, the activation of group threat promotes such forms of resistance also among the low identifiers. That is, the exposure to stereotypes generates some form of group reactance at the explicit level even for the low feminist identifiers.

**Discussion**

Results showed a significant influence of exposure to stereotypes on the activation of acceptance versus reactance
words for male participants, such that they activated more acceptance when they were exposed to stereotypical roles. There were no significant differences in the speed of categorization of acceptance versus reactance words after counter-stereotypical exposure. By contrast, women do not significantly activate acceptance after stereotypical exposure, although they show a similar pattern to men. Therefore, our hypothesis that women would activate more reactance in this condition was not confirmed. However, the lack of acceptance of stereotypes in women could be seen as some preliminary evidence of their capacity to react to a threatening situation for the group (by not accepting it). It may be that demonstrating evidence of reactance for women on implicit measures is harder than on explicit measures (Kray et al., 2001, 2004).

Interestingly women who highly identified with traditional roles (i.e., high in identification with women controlling for feminist identification) justified the system more after the counter-stereotypical exposure. These results suggest that presenting a counter-stereotypical worldview (in line with a more feminist ideology) leads to stronger system acceptance for traditional women, suggesting reactance against the feminist vision. This finding supports the view that motivation of group-level resistance (and thus reactance) depends on the content of group identity and perceived norms. Women with a more traditional gender identity seem to be more threatened when the stereotypes disconfirmed their traditional gender vision, and react against this, whereas less traditional women (more in line with feminism) do not. Although this goes against our initial assumption that women generally would be more threatened by stereotype exposure, it makes sense when we take into account the content of group identity for women not threatened by a traditional stereotypic view of women. The greater willingness of women to support collective action after stereotypical exposure is in line with our predictions, indicating evidence of explicit reactance at the group level.

Evidence that participants low in hostile sexism (nontraditional) persisted more on a subsequent stereotype-relevant task (i.e., spatial intelligence test) after the counter-stereotypical exposure could imply that these women felt empowered to disconfirm the (from their perspective) negative stereotype of women, in line with the counter-stereotypic feedback. Alternatively, this could be explained as behavioral priming, such that nonsexist women primed with counter-stereotypic agentic exemplars persist more at a difficult task (thus exhibit more agency). These results are in line with previous literature suggesting that activating or exposing people to counter-stereotypical exemplars or stimuli can increase motivation and reduce stereotype threatening effects in minorities (Forbes & Schmader, 2010).

Overall we found some qualified support for the view that women would show group reactance to conditions that threaten their group at the explicit level. Further, at the implicit level, acceptance was not more accessible than resistance when women were exposed to stereotypes (unlike for men). However, taking the content of group identity (norms, values) into account is important because more traditional women showed some evidence of group reactance in the counter-stereotypical condition (increased system justification), which presumably threatened their more conservative view of women. Women with a more progressive ideology (feminist, low in sexism) also showed some evidence of explicit resistance (persistence in the performance domain), albeit in the counter-stereotypical condition, possibly because they felt both the motivation and support to resist. Although this effect does not reflect group reactance to threat it does show that factors that facilitate freedom to act (a precondition for reactance) can also encourage resistance strategies.

**Study 2**

Contrary to our expectations, Study 1 did not provide evidence of activation of reactance-related goals in women after stereotypical exposure despite showing less accessibility of acceptance than men. If anything we found more evidence that traditional women exhibited group reactance to counter-stereotypical exposure. On the other hand, the finding that low feminist identifiers increased their collective action intentions after the stereotypical exposure to the level...
of high identifiers, suggests some evidence of resistance at the explicit level. In Study 2 we aim to provide further evidence of this lack of acceptance of gender-role stereotypes in women under conditions where women’s identity is more explicitly threatened. Previous research suggests that the threat to freedoms needs to be salient enough to trigger reactance responses (Kray et al., 2001, 2004; Laurin et al., 2012). Study 2 was designed to enhance this possibility by more explicitly threatening women’s identity. We assumed that when women are overtly discriminated against before being exposed to the stereotypical associations, group reactance tendencies will become stronger.

Method

Participants

The sample comprised 55 female students (age range: from 19 to 27 years, \( M = 22.85, SD = 1.73 \)) randomly assigned to a stereotypical or counter-stereotypical exposure condition. The participants were Social Science students (e.g., law, cultural studies, sociology).

Materials and Procedure

First, participants completed the Woman and Feminist Identity Questionnaire (\( \alpha = .75 \) and .94, respectively) and the Ambivalent Sexism Inventory (HS: \( \alpha = .85 \); BS: \( \alpha = .88 \)).

Threat Activation and Dependent Variables

Threat was induced by providing an article on the situation of female students of Social Sciences at the Jagiellonian University, in which it was proposed to increase the proportion of male students. The participants were told the article was drafted by a final year female Social Science studies student who was looking for some student feedback. The article indicated a high gender disproportion among Social Science students (74% of students are women and only 26% men) that was reversed among academic staff (three-fourths of whom are men). It presented a highly controversial solution to this inequality, supposedly proposed by the University authorities: to attract more men with the aim of increasing the prestige of Social Sciences. For this purpose it was suggested, to reduce the maximum proportion of female students to 50–60% of all students permitted to enroll per year. The proposition was rated as not fair or just (\( M = 1.96, SD = 1.20 \) and \( M = 2.09, SD = 1.28 \) on a scale ranging from 1 to 7). After reading the scenario participants were randomly assigned to one of the two exposure conditions (stereotypical vs. counter-stereotypical) and completed the exposure phase followed by the LDT and persistence task as it was done in Study 1.

In the last phase, participants completed the System Justification Scale (Kay & Jost, 2003), seven items concerning their feelings toward the proposal presented in the article (to what extent they consider themselves happy, angry, scared, offended, satisfied, humiliated, irritated) on a scale ranging from 1 (not at all) to 7 (very strongly). Finally, participants completed the same collective action measure used in Study 1 (normative, \( \alpha = .79 \), nonnormative, \( \alpha = .59 \); adapted from Taush et al., 2011).

Results and Discussion

Goal Activation

Data from five participants were excluded because they either wrongly remembered the proportion of representation of women and men in the threatening article or did not learn the keys associations in the exposure phase, leaving 54 participants for analysis. Further, erroneous classifications of all the target words were excluded from further analyses (5.7% of the trials). In order to normalize the distribution of RTs obtained we used the criterion of cutoffs over a maximal and minimal value, which was 2,000 and 200 ms (Ratcliff, 1993) (0.45% of trials excluded).

The mean RTs in LDT (excluding nonwords and errors) were subjected to a 2 (Stereotypical vs. Counter-stereotypical Exposure) \( \times 2 \) (RTs for Acceptance vs. Resistance-related target words) mixed ANOVA. Results showed no significant interaction between the exposure type and goals activated (\( F < 1 \)). There was only a main effect of faster participants’ responses to acceptance-related target words. That is, participants responded faster for acceptance goals-related target words (\( M = 870 \text{ ms}, SD = 182 \)) than the resistance-related ones (\( M = 900 \text{ ms}, SD = 184 \)) in the stereotype-consistent condition as well as when they were exposed to stereotype-inconsistent images (acceptance-related words: \( M = 856 \text{ ms}, SD = 130 \); resistance-related words: \( M = 874 \text{ ms}, SD = 140 \)), \( F(1, 52) = 9.15, p = .004 \).

Therefore, when the threat to group freedoms was made more salient across the board (in addition to the stereotypic threat manipulation used in Study 1), implicit activation of reactance goals still did not occur. This result might suggest that basic and early activation of reactance-related goals might not happen when there is no perceived scope for change or the difficulty of freedom restoration is perceived as high (Miron & Brehm, 2006). In this study the potential impact that students might have on the policies determined at the university level could have been perceived as low.

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2 We also measured Need for Closure (NFC) with the Polish shortened version of it (Kossowska, Hanusz, & Trejtowicz, 2012) (\( \alpha = .69 \)).
System Justification and Task Persistence

Regarding system justification, a nonsignificant effect of exposure condition was found, \(F(2, 52) = 10.05, p = .10\), indicating a trend to endorse less system justifying beliefs in the stereotypical (\(M = 3.71\)) than in the counter-stereotypical condition (\(M = 3.97\)). The moderation by women’s identification found in Study 1 was not replicated, \(F < 1, ns\). These differences in results compared to those of Study 1 might be due to the explicit scenario used to induce identity threat in all participants in the second study. In this case, the trend of means suggests a tendency to reject the system more after the stereotypical exposure, in line with our hypothesis of reactance to stereotypes.

Regarding task persistence, there was no effect of exposure, and no moderation by sexism or group identification, all \(Fs < 1, ns\).

Collective Action

The analyses of the collective action items indicate that generally in both exposure conditions participants were more likely to support normative collective action against the proposal (in the stereotypical condition: \(M = 6.37, SD = 2.11\); in counter-stereotypical condition: \(M = 6.21, SD = 1.85\)) than the nonnormative actions (in the stereotypical condition: \(M = 3.04, SD = 1.48\); in the counter-stereotypical condition: \(M = 2.95, SD = 1.15\)). However, the tests of between-subject effects showed a significant moderation by hostile sexism on collective action tendencies, \(F(1, 50) = 6.13, p = .017\), albeit only for the normative action subscale \(^3\) (Figure 3b). This indicates that the participants with low hostile sexism in the stereotypical exposure condition were more inclined to support normative collective actions to challenge the threatening proposal comparing with the participants in the counter-stereotypical condition (\(\beta = -.38, t(50) = -2.09, p = .042\)). The comparison for participants who scored high on hostile sexism was not significant, \(t(50) = 1.43, ns\). There was no significant moderation by feminist identification controlling for identification with women, \(F < 1.6, ns\).

In sum, with a more identity threatening context we found no relative activation of acceptance words after the stereotypical exposure, replicating results of Study 1. Further, consistent with a group-based reactance explanation, low hostile sexists (nontraditional) showed more explicit support for collective actions at the explicit level.

General Discussion

The main goal of this research was to examine whether reactance can occur as a response to threats to ingroup identity, be it defined narrowly in terms of group freedom or more generally in terms of identity content, norms, or values. In two studies no clear evidence of implicit reactance was observed. However, at the explicit level more clear-cut evidence for group reactance on a key explicit measure (collective action) was found.

The studies did not support the hypothesis that reactance can be activated at an implicit level. Previous theorizing emphasizes the role of perceived cognitive alternatives to the current social arrangement in motivating social change (Tajfel & Turner, 1986). Reactance theory proposes that the direct restoration of freedom can only be applied when one of the alternatives is moderately threatened instead of fully eliminated from the options of choice (e.g., Laurin et al., 2012). It may be that our manipulation of stereotypes in the exposure phase (90% traditional roles) therefore leaves insufficient scope to show reactance at the implicit level. Study 1 showed that when the activation of acceptance goals is assessed, suggestive differences between men and women in reaction time latencies to those words resulted. However, the lack of a significant interaction with gender indicates that this result is quite tentative and needs further replication to test it.

On the present evidence the role of previously held beliefs or ideologies seems to be a crucial factor for reactance to take place at the group level. These individual differences on the critical ideological dimensions (sexism, feminism) indicate which values or goals relating to group identity are being threatened. Clearer evidence of group reactance was found at the explicit level, both in response to the threat implied by stereotypic role distinctions (in the form of increased support for collective actions) but also the counter-stereotypic ones (in the form of increased system justification).

On the one hand, women who do not endorse a traditional sexist ideology support more collective action to promote gender equality when women’s identity has been threatened (Study 2). Moreover, when the threat to women’s group identity was indirectly induced by extensive exposure to gender stereotypes, even low feminist identifiers support collective action to the same extent as their high feminist identifiers counterparts (Study 1). Embracing normative collective action, as a form of resistance, might have the function of restoring one’s sense of control previously threatened by the freedom narrowing messages (Fritsche et al., 2011; Jonas & Fritsche, 2012).

On the other hand, we found that counter-stereotypical exposure led to reactance among those who found this threatening to their view of the group identity (i.e., traditional women) in the form of higher support for system justification (Study 1). Specifically, in a cultural context in which traditional gender roles are generally supported, deviance from such norm also might evoke strong reactance. Many women students in our Polish sample might share a vision of traditional gender identity, with its characteristic ambivalent components, like the core historical role of motherhood in Polish femininity (Mikolajczak & Pietrzak, 2015).

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\(^3\) The interacting effect of Exposure \(\times\) HS on normative collective action held significant when controlling for BS, \(F(1, 49) = 5.07, p = .03\).
Our research relates two factors, raised in Brehm’s original theory (1966), that influence reactance in an intergroup domain. The first one is the central importance of the threatened freedom. We find that group identification, as well as group values and norms are crucial preconditions for reactance to occur at the group level. The other factor is the magnitude of the threat. We found, in line with some previous studies (Brehm, 1993; Laurin et al., 2012), that high levels of threat, implying difficulty to restore freedom, can attenuate reactance motivation. At least, they might make the process of reactance slower or less automatic, making it less probable to occur on more implicit or indirect measures. This is consistent with recent findings by Sittenhaler et al. (2015) who found that legitimate restrictions to freedom have slower reactance-based physiological activation (arousal). Also Kray et al.’s study (2001, 2004) found that reactance is harder to find on implicit processes than on explicit ones.

However, the limitations of our studies are numerous, from the small sample size to the lack of replication of some effects on the explicit measures across studies. These inconsistencies might be due to the attempt to create a much stronger overt identity threat in Study 2. Such modification in the paradigm was introduced in order to seek for the activation of reactance goals at the implicit level, which proved to be unsuccessful. Future studies are needed to replicate the reactance effects on the explicit measures and to examine the potential moderators that might allow for reactance at the implicit level to occur.

To summarize, we have provided evidence on a range of implicit and explicit measures that when group identity is threatened, group members do not always accept this, and that they show signs of group reactance when there is the scope to do so. However to make sense of these strategies we need to take into account the (ideological) content of group identity that frames the experience of threat. The threat to freedom, central to reactance theory, also deserves to be broadened to the group context because whether the group actually demands full freedom and equality with an outgroup (e.g., women rights and equality as well as group values and norms are crucial preconditions to be unsuccessful. Future studies are needed to replicate the reactance effects on the explicit measures and to examine the potential moderators that might allow for reactance at the implicit level to occur.

To summarize, we have provided evidence on a range of implicit and explicit measures that when group identity is threatened, group members do not always accept this, and that they show signs of group reactance when there is the scope to do so. However to make sense of these strategies we need to take into account the (ideological) content of group identity that frames the experience of threat. The threat to freedom, central to reactance theory, also deserves to be broadened to the group context because whether the group actually demands full freedom and equality with an outgroup (e.g., women rights and equality with men) is also an ideological question that not all members of the ingroup will necessarily embrace. In short, we hope in the process to have extended the scope and flexibility of reactance principles so that they can be applied to a broader set of identities and resistance strategies.

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