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Humorous Responses to Gender Injustice: The Contrasting Effects of Efficacy and Emotions on Women's Collective Action Intentions

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Abstract

Research has shown that subversive humor may be used to challenge existing societal hierarchies by confronting people with prejudice. Expanding on this literature, we hypothesized that humor would create two simultaneous and offsetting psychological mechanisms: increasing collective action motivation by signaling speaker power and inspiring efficacy *and* decreasing collective action motivation by reducing negative emotions towards men as the powerful group. We tested our hypotheses in two experiments, conducted among self-identified women. Study 1 ($N=374$) compared videos featuring a comedian (subversive humor vs. non-humor vs. unrelated humor) and Study 2 ($N=224$) utilized vignettes depicting a woman's response to a sexist workplace interaction (subversive humor vs. non-humor vs. amenable response). Subversive humor (vs. unrelated humor/amenable response) increased group efficacy and subsequently collective action intentions. Simultaneously, and as an offsetting mechanism, subversive humor (compared to non-humor) reduced negative emotions toward men and subsequently lowered collective action intentions. Our results call into question the efficaciousness of humor responses to inspire women observers toward collective action for gender equality and emphasize the need for a deeper understanding of humor as a tool to promote action for equality.

Keywords Subversive humor · Collective action · Gender equality · Gender injustice

Laughter is not our medicine. Laughter is just the honey that sweetens the bitter medicine....

Hannah Gadsby

Humor is a central element of human interaction. Because humor has occupied the realms of different and disconnected literatures (i.e., gender studies, anthropological tribes, organizational behavior), there is no single agreed upon definition of it. However, most researchers describe humor as

instances of verbal communication which are perceived as humorous by listeners (i.e., Martineau, 1972). Humor has been a central topic of enquiry within gender studies, where humor is construed as a distinct mode of discourse, emanating through language and conversation, that enables the speaker to shape any given social interaction (Crawford, 2003). More specifically, it is through humor that men and women 'do gender' – in other words, humor is a powerful verbal tool through which its users construct both feminine and masculine identities, expectations of what it means to be a man and a woman, both of which lend themselves to reproducing or challenging social systems.

And indeed, as evidenced in research, women seem to be using humor to stand up to men more over the years (Lam-pert & Ervin-Tripp, 1998), with a decline in acceptance of anti-women humor and an increase in pro-feminist humor. In this paper we used Martin et al.'s (2003) two-dimensional model of humor styles and focused on humor that enhances the *self* or the *ingroup* (including self-enhancing and aggressive humor), rather than humor that enhances *relationships* (including self-defeating or affiliative humor). According to Crawford (2003, p. 1420), the ambiguity of humor itself, and

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the fact that it is an intentional (and socially acknowledged) violation of interactional rules (Attardo, 1993) enables discussion of sensitive topics in “disguised and deniable form.” This, potentially, makes humor an ideal tool for marginalized groups to raise awareness of social issues and mobilize around social change (Chattoo, 2019; Kutz-Flamenbaum, 2014). Friedman and Friedman (2020) discuss humor as a tool for raising awareness and educating others on social injustice, racism, antisemitism and islamophobia. In these examples, members of disadvantaged groups relay events or information based on their own (and their group’s) experiences, highlighting the disadvantage in an ironic and humorous way.

Our focus in this paper is on the use of subversive humor, a form of humor used to challenge existing societal hierarchies by confronting people with prejudiced beliefs. Subversive humor has been described as a tool for raising social awareness (Strain et al., 2016) and has been a key part of feminist movements. The use of subversive humor has allowed feminists to challenge the status quo in a manner that both attracts attention and is more acceptable than other more aggressive means (Holmes & Marra, 2002a). This is different from disparagement humor, which is another form of humor explored by researchers investigating societal inequalities and intergroup differences. Disparagement humor is construed as humor that is “intended to elicit amusement through the denigration, derogation, or belittlement of a given target” (Ferguson & Ford, 2008, p. 1). This type of humor can be seen in sexist humor which is used to denigrate women (Riquelme et al., 2021), and also in racial humor which, when used, has the potential to convey prejudice and endorse stereotypes (Miller et al., 2019). Disparagement humor reinforces status hierarchies between groups (e.g., reinforcing gender discrimination) by avoiding reprobation, given that the humor expressed is ‘just a joke.’

However, joking about injustice and those who hold power does not change the hierarchy in and of itself (Crawford, 2003); it is merely a tool for identifying injustice and mobilizing social change. Our research examined whether humor as a response to gender injustice does in fact increase collective action intentions among women, or whether it is—in Gadsby’s words—merely “the honey that sweetens the bitter reality.”

Humor, Power, and Group Efficacy Increase Collective Action

Previous research has established the importance of social identity and group membership (Tajfel & Turner, 1979) for collective action, including a sense of in-group identification (Simon & Klandermans, 2001; Stürmer & Simon,

2004), perceived injustice (van Zomeren et al., 2012), and group efficacy (Bandura, 2000; Hornsey et al., 2006). The idea that women can use humor advantageously to highlight injustices, project power and increase efficacy among other women has some merit. Humor has historically served marginalized and minority groups as a powerful tool for mobilization and inspiration for social change (Chattoo, 2019; Kutz-Flamenbaum, 2014). Humor has occupied an important and powerful role in social movements in the form of comedy, jokes, posters, cartoons, chants and burlesque characters which articulate discontent or communicate injustices (Hartz, 2007). Humor has been documented as an essential communicative strategy that enables collective mobilization by confronting inequality (Saucier et al., 2018). For example, in the Spanish 15-M Indignados social movement, jokes and posters were deployed as a means of encouraging individuals to join in collective demands against austerity (Tejerina & Perugorria, 2017).

One reason that humor is used by social change movements is that humor has been found to increase attention among observers (Leavitt, 1970; Schmidt, 1994; Weinberger & Gulas, 1992), as well as increasing the speaker’s image and status (Gruner, 1976) and message acceptance (Sternthal & Craig, 1973). That is, when a message is delivered in a humorous way, observers tend to pay more attention, approve of the message deliverer, and accept the content of the message more readily. Subversive humor, which intends to undermine social hierarchies, has been found to raise collective action intentions (compared to general humor; but not compared to non-humor responses) aimed at reducing gender discrimination among men and women (Riquelme et al., 2021); although no mediating mechanisms were explored to explain this effect. Outley and colleagues (2021) found that resistance comedy on Twitter during the COVID-19 pandemic allowed Black Twitter users to protest against racial stereotypes, all the while guiding collective action against the ‘common enemy’ (Sharma, 2013). Moreover, using examples of sketch comedy, Boykoff and Osnes (2019) describe how comedic communication about the serious issue of anthropogenic climate change can increase the salience of climate change, making this issue more approachable for the everyday public. In each of these examples, humor permits the speaker to express their ideas jokingly; they therefore disarm the opponent from being able to refute the content (Hartz, 2007) whilst mobilizing others in collective action.

Humor Signals Power

Humor can also stimulate collective action in observers because the use of humor itself is linked to power perceptions. For instance, humor is used by individuals to improve

their own status in a group (Bitterly, 2022; Duncan, 1982; Holmes & Marra, 2002b; Tapley, 2006), and is an important tool for effective leadership (Meyer, 2000; Romero & Cruthirds, 2006). Dunbar et al. (2012) showed that humor was used more by powerful people in social interactions, whereas quiet and humorless speech style was shown to be used in conversation by individuals with low power or status compared to their conversational partners (O'Barr & Atkins, 1980). Moreover, humorous orientation (the use of humor as a social skill) has been associated with higher social attraction, making the speaker more socially appealing (Wanzer et al., 1996). Specifically for gender relations, humor has been found to be used by men to assert and determine power hierarchies compared with women who typically use humor as a way of creating intimacy and solidarity (Crawford, 1995; Maltz & Borker, 2018; Robinson & Smith-Lovin, 2001).

Power Perceptions and Group Efficacy

Group-based efficacy (van Zomeren et al., 2012) is the belief that the ingroup can create change through collective action and is critical for increasing motivation to engage in collective action (Drury & Reicher, 2000; Kelly & Breinlinger, 1996). Previous work has shown that individuals are attuned to others' power levels (status and workplace roles) in interactions (Snodgrass et al., 1998), and that power based on group membership (high-status majority group) was associated with more agentic perceptions (Bruckmüller & Abele, 2010) and the ability to influence others socially (Fiske & Berdahl, 2007). Applied to the context of gender, it stands to reason that observing an ingroup target (of gender injustice) behaving in a way that is perceived as powerful would induce group-based efficacy. This is substantiated by research showing that perceiving an ingroup target (relative to a perpetrator) as powerful increased collective action intentions via group-based efficacy (Glasford & Pratto, 2014).

Taken together, the aforementioned literature suggests that a person using humor would be seen by group members as more powerful, and if this person is a member of a disadvantaged (in)group, this would induce a sense of group efficacy and subsequently increasing collective action intentions. For example, women observing another woman using subversive humor about gender injustice would perceive her as more powerful and would subsequently experience more group-based efficacy, leading to higher motivation to engage in collective action for gender justice.

Humor and Negative Emotions Towards Men Decrease Collective Action

One of the most widely acknowledged effects of humor is its functional role in facilitating relationships and interpersonal attitudes (Burgess & Sales, 1971; O'Quin & Aronoff, 1981; Sprowl, 1987), creating an open and comfortable atmosphere (see Martin et al., 2006). Laughing is an enjoyable activity which generates pleasant affect and mood (Neuhoff & Schaefer, 2002), and therefore making others laugh in social contexts has been found to be perceived as a valued skill (Gruner, 1985). Humor also enables people to decrease social distance (Cheatwood, 1983; Curry & Dunbar, 2013). Specifically for women, previous research points to the use of humor to create a positive atmosphere through closeness, solidarity, and intimacy (Maltz & Borker, 2018; Crawford, 1995). Thus, it seems that humor can elicit positive attitudes and behaviors, and one mechanism underlying this is emotion (Robert & Wilbanks, 2012).

Emotions are responses influenced by an individual's appraisal of a situation, event, or information as being relevant and meaningful to the self (Scherer, 1984). According to appraisal theories of emotion (Frijda, 1986), this process leads to an affective response followed by action tendencies. Emotions, both positive (e.g., hope: Cohen-Chen et al., 2014, 2019) and negative (e.g., hatred: Halperin, 2008), have been established as an important predictor of intergroup attitudes and behavior, past research has established the importance of emotions as underlying collective action processes (van Zomeren et al., 2004). Emotions driven by appraisals of possibility for change, such as anger and hope, drive normative collective action (Shuman et al., 2016; Tausch et al., 2011). On the other hand, emotions based on appraisals of fixedness, such as contempt and hatred, drive non-normative collective action (Shuman et al., 2016; Tausch et al., 2011).

We suggest, however, that this ability of humor to engender positive emotions and reduce negative emotions can become a double-edged sword in the context of collective action for gender injustice. Wright and Lubensky (2009) suggest that to promote collective action, the outgroup holding the keys to power changes *should* be seen negatively. In the context of gender justice, Becker and Wright (2011) found that observing hostile sexism increased collective action participation by increasing negative affect (vs. benevolent sexism, which undermined women's collective action by increasing positive affect). Therefore, the use of humor to promote positive perceptions of the outgroup, which is key to promoting intergroup harmony and relations, may in fact hinder motivation to engage in collective action for social change (Dixon et al., 2010; Saguy et al., 2009). Research examining satirical humor styles has

suggested that (some forms of) humor can lead participants to discount the impact of the associated political message by dismissing the gravity of the issue at hand and making it seem less severe (Gallardo et al., 2024; Innocenti & Miller, 2016; LaMarre et al., 2014; Nabi et al., 2007). In sum, these findings suggest that the use of humor may normalize discriminatory behavior, reducing negative emotions towards the outgroup among observers, and subsequently decrease collective action intentions for gender justice. However, the use of humor may lead to more negative emotions, such as anger and outrage, which have been found to induce collective action participation (van Zomeren et al., 2008). For example, Lee and Kwak (2014) showed that, among political sophisticates, consuming humor that directly highlights negative aspects of the government led to more political participation by increasing negative emotions toward the government (see also Lee & Jang, 2017).

The Present Study

Taken together, it seems that humorous responses to inequality may create two simultaneous and opposing psychological mechanisms when used in response to gender injustice, weakening the effect of humor on collective action intentions.

Across studies we had two main, simultaneous hypotheses:

H1: On the one hand, we expected that humor would decrease anger (H1a), which would be positively associated with negative emotions towards men (H1b), and that this

would be positively linked to collective action intentions (H1c).

H2: On the other hand, we expected that humor would increase speaker power (H2a), which would be positively associated with group efficacy (H2b), which would be positively linked to collective action intentions (H2c).

Ultimately, these two mechanisms would, we argue, create a non-significant effect of humor on gender-based collective action intentions (See conceptual Fig. 1). We tested our hypothesis using two experimental studies, and reported all data exclusions, sample size, and manipulations in the study, consistent with reporting standards for quantitative research (Appelbaum et al., 2018). Ethics approval was obtained prior to data collection from the relevant institutions. Manipulations, data, and research materials are available on OSF (https://osf.io/3sy94/?view_only=388ced4693f84d7983ea449d9ac4f5c0). Both studies were part of a larger project, and additional measures and information (not pertinent to the research question) are available by email to the lead author. Data was analyzed using IBM SPSS v27 with PROCESS add-on.

Study 1

For Study 1, we had the following hypotheses:

S1H1: Gender-related subversive humor will decrease anger compared to gender related non-humor, but not gender unrelated humor (S1H1a), which would be positively associated with negative emotions towards men (S1H1b),

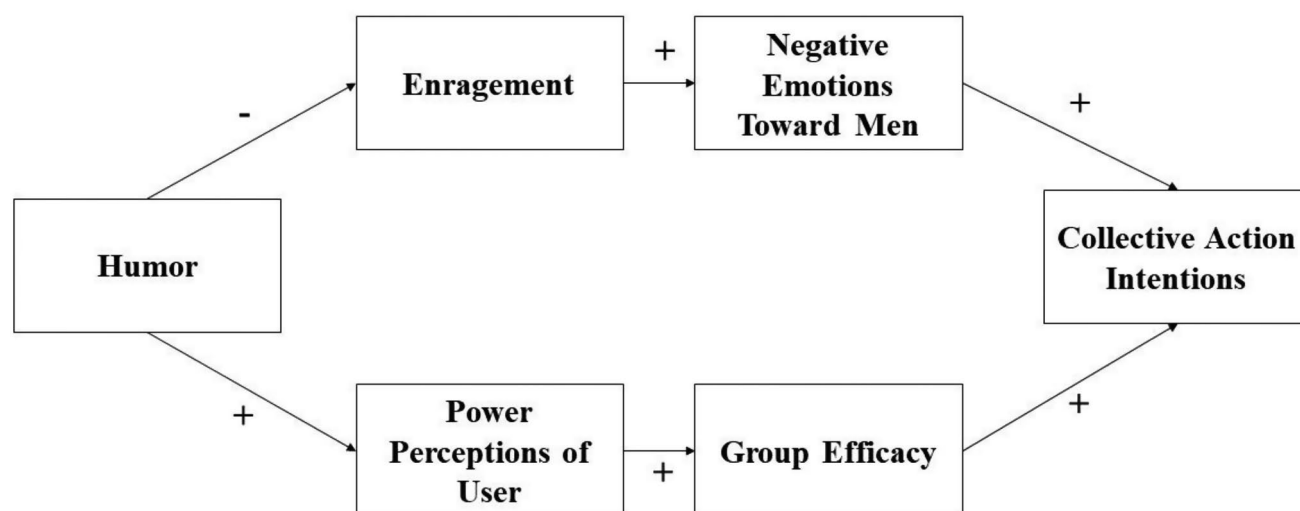


Fig. 1 Conceptual depiction of model

and that this would be positively linked to collective action intentions (S1H1c).

S1H2: Gender-related subversive humor will increase speaker power perceptions compared to gender unrelated humor, but not gender-related non-humor (S1H2a), which will be positively associated with group efficacy (S1H2b), which will be positively linked to collective action intentions (S1H2c).

Study 1 Method

Participants and Procedure

Three hundred and seventy-four participants who self-identified as women were recruited via Prolific. We filtered participants on Prolific as having identified as women and as fluent English speakers. In terms of socio-economic background, 20% of participants indicated they were below average, 58% indicated they were average, and 22% indicated they were above average. In terms of political orientation, our sample leaned to the left with 9% stating they were conservative, 27% moderate, and 65% identifying as liberal. A sensitivity power analysis indicated that our final sample was sufficiently powered to detect a small-medium effect ($f=0.20$) with 0.95 power in a one-way ANOVA with three conditions (or a smaller effect size $f=0.16$ with 0.80 power). Participants were compensated £1.25 for their time. We did not remove any participants and the final sample size was $N=374$.

Following our consent items, participants indicated their levels of feminist identification (see measures below), and then were randomly assigned to the experimental manipulation (video; see below). Next, participants filled in the mediating and dependent variables (see measures below), socio-demographic information and control variables, and were lastly fully debriefed.

Experimental Manipulation

Participants were randomly assigned to watch one of three video clips, each of which represented a different form of humor to discuss gender justice (subversive humor; non-humor; humor unrelated to gender). In each condition, participants watched a short video of Hannah Gadsby, a genderqueer Australian comedian who addresses issues surrounding gender relations and LGBTQ+ identities and experiences. In the *subversive gender-related humor condition* ($n=127$), Gadsby discusses a situation in which a man they had just met told them they should smile (“It takes

less muscles to smile than frown”), to which they answered humorously (“Wow, I didn’t know that you are so concerned with energy consumption. If only more people knew!”). In the *gender-related non-humor condition* ($n=123$), Gadsby discusses gender relations and sexual assault, but does not make any jokes (“We need to talk about how men will draw a different line for every different occasion, they have the line for the locker room, the line for when their wives, mothers, daughters, and sisters are watching...”). In the *gender unrelated humor condition* ($n=124$), Gadsby discusses a situation unrelated (directly) to gender relations (Americans and guns) in a humorous manner (“So you’re going to fight the apocalypse in this...barn guys? In this here wooden structure? You haven’t even read the three little pigs, have you?”). Following the video, participants completed measures of the study variables.

Measures

Unless indicated otherwise, answers to all measures ranged from 1 (*Absolutely disagree*) to 6 (*Absolutely agree*).

First, participants were asked the extent to which they found the video *funny*. Next, we examined a negative emotion felt by participants after watching the video by measuring the extent to which they found the video *enraging*. Third, we measured the extent to which they perceived the person in the video as *powerful*. For all these items, answers ranged from 1 (*Absolutely not*) to 6 (*Absolutely*).

Negative emotions towards men were measured as the extent to which participants experienced anger and hostility towards men for the suffering of women ($r=.65$, $p<.001$).

Group efficacy was measured using a 4-item scale ($\alpha=0.89$) based on the work of van Zomeren et al. (2004), with the following statements about women as a group: “I think women have the ability to promote women’s rights through unified action”; “I believe women, as a group, can successfully promote women’s rights”; “Women have great strength as a group”; and “Women can create a big change in the system if they want to.”

Collective action intentions was measured by asking participants the extent to which they would be willing to engage in 16 activities to promote women’s rights (e.g., ‘Signing a petition to promote women’s rights’; ‘Participating in a demonstration to promote women’s rights’; ‘Contributing to an organization promoting women’s rights’; ‘Blocking roads while demonstrating to promote women’s rights’; ‘Verbally attacking individuals (in person) who violate women’s rights’; $\alpha=0.92$; see Tausch et al., 2011).

Table 1 Means, standard deviations and correlations between Study 1 variables

Variable	Mean (SD)	1	2	3	4	5
1. Video Funniness	2.86 (1.57)	--				
2. Video Enraging	1.87 (1.17)	$p = .009$				
3. Negative Emotions Towards Men	2.79 (1.27)	-0.02	$p = .001$			
4. Target Power	4.11 (1.47)	$< .001$	$p = .002$	$p < .001$		
5. Group Efficacy	5.02 (0.88)	0.09	-0.04	$p = .002$	$p < .001$	
6. Collective Action Intentions	3.25 (0.99)	$p = .037$	$p = .008$	$p < .001$	$p < .001$	$p < .001$

Note. Bolded numbers indicate significant correlations. * $p < .05$ ** $p < .01$

Table 2 Means, standard deviations, and Tukey post-hoc analyses for Study 1 variables

Variable	Subversive Humor		Non-Humor		Humor (Unrelated)	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Funniness	3.87 ^a	1.29	1.39 ^b	0.76	3.27 ^c	1.36
Enraged	1.76 ^a	1.17	2.33 ^b	1.23	1.55 ^a	0.97
Negative Emotions	2.61 ^a	1.26	3.02 ^b	1.34	2.76 ^{ab}	1.27
Power	4.20 ^a	1.44	4.38 ^a	1.48	3.73 ^b	1.43
Efficacy	5.02 ^a	0.94	5.03 ^a	0.80	4.99 ^a	0.92
Collective Action	3.25 ^a	1.12	3.27 ^a	0.95	3.24 ^a	0.90

Note. For each DV, means that *do not share* the same superscript across conditions are significantly different from each other at $p < .05$

Control Variables

Feminist identification was measured using a 4-item scale (Szymanski, 2004). Items were: ‘I consider myself a feminist’; ‘I identify myself as a feminist to other people’; ‘Feminist values and principles are important to me’, and ‘I support the goals of the feminist movement.’ ($\alpha = 0.95$). Participant *Socio-Economic Status* (SES) background was measured on a scale from 1 (*far below average*) to 5 (*far above average*). *Political orientation* was measured on a scale from 1 (*Extremely Conservative*) to 7 (*Extremely Liberal*). Both measures have previously been found to relate to feminist identification (see Liss et al., 2001), which was also our reason for including them. Lastly, we examined whether participants were *familiar* (yes or no) with “the person you saw in the video” (i.e., Hannah Gadsby; 12.6% stated yes).

Study 1 Results

Means, standard deviations, and zero-order correlations are presented in Table 1. No significant differences were found between conditions in terms of the control variables. We then examined the effect of our manipulation on all dependent variables using a series of one-way ANOVAs. See Table 2 for means and SDs for all dependent variables separated by experimental condition.

First, we examined the effect of humor conditions on the extent to which participants found the video *funny*. A one-way ANOVA revealed a significant effect, $F(2,370) = 150.92$, $p < .001$, partial $\eta^2 = 0.45$. As expected, Tukey post-hoc analysis revealed that participants found the gender-related

non-humorous video ($M = 1.39$, $SD = 0.76$) significantly less funny than both the subversive gender-related humor video ($M = 3.87$, $SD = 1.29$; $p < .001$, $d = 2.34$) and the gender unrelated humor video ($M = 3.27$, $SD = 1.36$; $p < .001$, $d = 1.71$). Participants found the humorous video about men significantly funnier than the gender unrelated humor video ($p < .001$, $d = 0.45$).

We examined the effect of the manipulation on the extent to which participants found the video *enraging*. A one-way ANOVA revealed a significant effect, $F(2,371) = 15.73$, $p < .001$, partial $\eta^2 = 0.08$. Tukey post-hoc analysis revealed that participants who watched the gender unrelated humor video ($M = 1.55$, $SD = 0.97$) were significantly less enraged compared to those who watched the gender related non-humor video ($M = 2.33$, $SD = 1.23$; $p < .001$, $d = 0.70$). As expected, participants in the subversive gender-related humor condition ($M = 1.76$, $SD = 1.17$) were also significantly less enraged than the gender-related non-humor condition ($p < .001$, $d = 0.47$). There was no difference between the two humor conditions ($p = .312$, $d = 0.19$). This supports Hypothesis S1H1a.

Next, we examined the effect of the manipulation on the extent to which the person in the video was seen as *powerful*. A one-way ANOVA revealed a significant effect, $F(2,371) = 6.61$, $p = .002$, partial $\eta^2 = 0.03$. Tukey post-hoc analysis showed that those in the subversive gender-related humor condition ($M = 4.20$, $SD = 1.44$) saw Gadsby as similarly powerful to those in the gender-related non-humor condition ($M = 4.38$, $SD = 1.48$; $p = .598$, $d = 0.12$), but that participants in both conditions saw Gadsby as significantly more powerful than in the gender unrelated humor condition

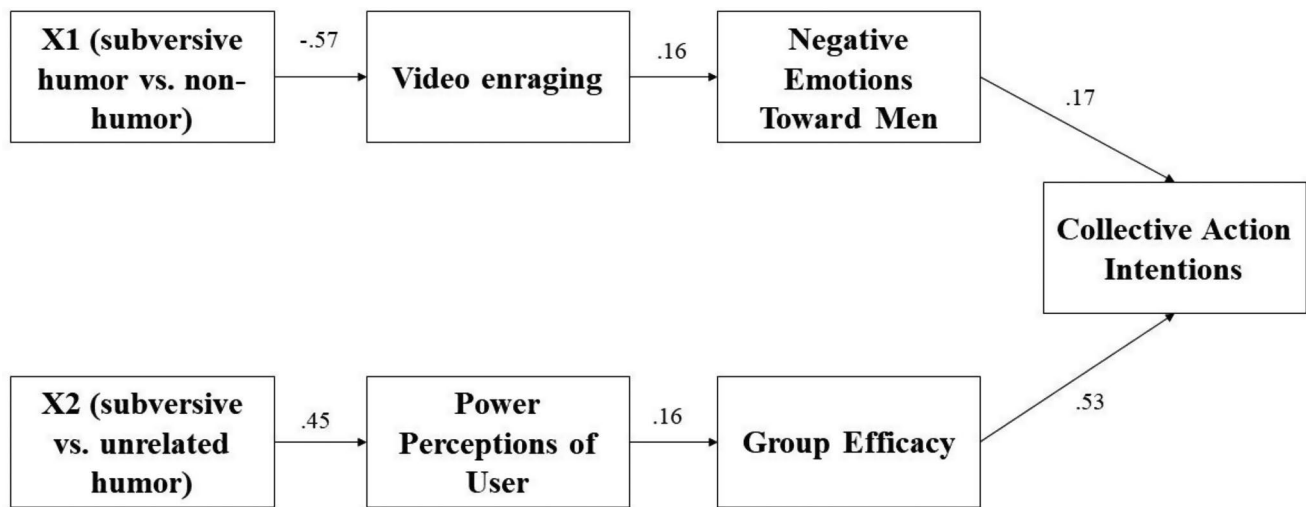


Fig. 2 Parallel serial mediation model comparing experimental conditions' effects on collective action intentions in Study 1

($M = 3.73$, $SD = 1.43$; $ps < 0.028$, $ds > 0.33$). This partially supports Hypothesis S1H2a.

In terms of *negative emotions* towards men (which was significantly correlated with being enraged by the video; see Table 1), we found a significant effect, $F(2,371) = 3.47$, $p = .032$, partial $\eta^2 = 0.02$. Once again, and as expected, women who watched the subversive gender-related humor video were significantly less angry at men ($M = 2.61$, $SD = 1.26$) compared to those who watched the gender-related non-humor video ($M = 3.02$, $SD = 1.34$; $p = .025$, $d = 0.31$). However, no difference was found between the gender unrelated humor condition ($M = 2.76$, $SD = 1.27$) and both the subversive gender-related humor condition and the gender-related non-humor condition; $ps > 0.235$, $d < 0.19$). Thus, although subversive humor about men led to a perception of Gadsby as powerful, it simultaneously reduced negative emotions towards men.

In terms of *group efficacy* and *collective action intentions*, no effect of the humor condition was found (both $ps > 0.946$). See Supplement A in the online supplement for additional analyses.

Parallel Serial Mediation Model

To examine the full model, we used Hayes' (2018) PROCESS macro (model 82) to simultaneously test two opposing serial indirect effects (condition \rightarrow power perceptions of speaker \rightarrow group efficacy \rightarrow collective action intentions; condition \rightarrow enragement \rightarrow negative emotions \rightarrow collective action intentions) with a multi-categorical IV using PROCESS indicator coding, comparing the subversive humor condition to non-humor (coded X1) and subversive humor to unrelated humor (coded X2).

Table 3 Indirect effects, direct effects, and total effects for paths in serial mediation model Study 1

Variable		Effect	SE	<i>p</i>	95% CI
Indirect Effect (Via Power Perceptions and Efficacy)	X1	0.02	0.02	--	-0.02, 0.05
	X2	-0.04	0.02	--	-0.08, -0.01
Indirect Effect (Via Anger and Negative Emotion)	X1	0.02	< 0.01	--	0.002, 0.04
	X2	-0.01	< 0.01	--	-0.02, 0.002
Direct Effect	X1	-0.13	0.10	0.184	-0.33, 0.06
	X2	0.04	0.10	0.698	-0.16, 0.24
Total Effect	X1	0.02	0.13	0.875	-0.23, 0.27
	X2	-0.01	0.13	0.933	-0.26, 0.24

Note. X1 = Subversive Gender Related Humor vs. Gender Related Non-Humor; X2 = Subversive Gender Related Humor vs. Gender Unrelated Humor

Results (see Fig. 2; Table 3) showed that subversive gender-related humor (compared to gender-related non-humor; X1) reduced participant enragement, which led to lower negative emotions toward men as a group, and subsequently predicted lower collective action intentions ($a^*b = 0.01$, 95% Confidence Interval (CI) [< 0.01 , 0.04]). No such effect was found when comparing subversive gender-related humor to gender unrelated humor (path X2; $a^*b = -0.01$, 95% CI [-0.02 , < 0.01]). This supported Hypothesis S1H1.

Simultaneously, subversive gender-related humor (vs. gender unrelated humor; X2) led to higher perceptions of power, which was linked to higher group efficacy and predicted collective action intentions ($a^*b = -0.04$, 95% CI [-0.08 , -0.01]). No such effect was found when comparing subversive gender-related humor to the gender-related non-humor condition (path X1; $a^*b = 0.01$, 95% CI [-0.02 , 0.05]). This supported Hypothesis S1H2. Results remained significant when controlling for political orientation, SES, and whether participants recognized Gadsby. When

controlling for feminist identification, the full model was no longer significant, although the trends remained the same.

Study 1 Discussion

Overall, the findings from Study 1 indicate two opposite (and perhaps offsetting) effects of subversive humor, explaining why subversive humor related to gender relations may not necessarily induce motivation to engage in collective action to promote women's rights. Although the results were interesting, there were several limitations, which we aimed to address in the next study. The first involved the emotional path. By using the existing content in the videos, our ability to control for differences in the content were limited. While the subversive humor video dealt with an aspect of gender relations which is extremely common (men telling women and other gender groups they should smile more), the issue discussed in the non-humorous video addressed sexual harassment, which could explain the differences in negative emotions towards men and collective action intentions. Therefore, Study 2 was a vignette study, in which we focused on an everyday gender-related interaction in the workplace, and based it on the same context as presented in the subversive humor condition in Study 1. We examined how different responses made by a woman towards a man were observed and interpreted by women.

The second limitation involved our findings regarding humor and power perceptions. As noted, in Study 1 we compared the subversive humor and non-humor conditions to an unrelated humorous condition (which did not deal with the topic of gender relations explicitly, but might have been perceived by some women as ridiculing men, due to the strong connection between guns and masculinity; e.g., Warner et al., 2022). Interestingly, no differences were found between the subversive humor and non-humor conditions in power perceptions, despite the differences in content, potentially indicating that the very use of humor by a minority group member, in the context of power asymmetry, increases the perceived power of the speaker. Because we wanted to examine the power pathway to collective action while equalizing content across conditions, we needed a control condition in which we removed humor *and* power. We therefore created an amenable response, one which is quite common in cases of "casual" sexism, and is not humorous, nor conveys power explicitly (or implicitly by ridiculing men).

Study 2

For Study 2, we had the following hypotheses:

S2H1: Subversive humor will decrease enagement compared to non-humor but not the amenable response (S2H1a), which will be positively associated with negative emotions towards men specifically (S2H1b), and that this will be positively linked to collective action intentions (S2H1c).

S2H2: Subversive humor will increase speaker power perceptions compared to the amenable response, but not non-humor (S2H2a), which will be positively associated with group efficacy (S2H2b), which will be positively linked to collective action intentions (S2H2c).

Study 2 Method

Participants and Procedure

Two hundred and twenty-four participants (Mean age = 29.50, $SD = 9.64$) who self-identified as women were recruited via Prolific. We filtered participants on Prolific as having identified as women and as fluent English speakers. In terms of socio-economic background, 19% of participants indicated they were below average, 61% indicated they were average, and 20% indicated they were above average. In terms of political orientation our sample once again leaned to the left with 10% who identified as conservative, 24% identified as moderate, and 66% identified as liberal. A sensitivity power analysis indicated that our final sample ($N = 224$; no participants were removed) was sufficiently powered to detect a small-medium effect ($f = 0.26$) with 0.95 power in a one-way ANOVA with three conditions, or a small effect size ($f = 0.21$) with 0.80 power. Participants were compensated £1.75.

Following our consent items, participants once again indicated their levels of feminist identification (see measures below), and then were randomly assigned to the experimental manipulation (see below). Next, participants filled in the mediating and dependent variables (see measures below), socio-demographic information, and were lastly fully debriefed.

Experimental Manipulation

Participants were asked to read a short text and to "try to imagine the following scenario: It is a typical morning at the office, and you are sitting at your desk and talking to a colleague, Laura, while drinking your coffee. Soon after, you are approached by another colleague, Mark. Mark sits on the corner of Laura's table, leans over, and says to her "you know Laura, you should smile more often. It takes less muscles to smile than frown." At this point, participants

Table 4 Means, standard deviations and correlations between Study 2 variables

Variable	Mean (SD)	1	2	3	4	5	6
1. Situation Funniness	1.98 (1.21)	--					
2. Target Funniness	3.32 (1.42)	$p < .001$					
3. Video Enraging	3.13 (1.59)	$p < .001$	0.01				
4. Negative Emotions (Men)	2.69 (1.28)	$p = .031$	0.13	$p < .001$			
5. Perceived Power	3.92 (1.59)	$p = .008$	$p < .001$	$p = .034$	$p = .006$		
6. Group Efficacy	4.95 (0.94)	-0.05	$p = .002$	$p = .001$	$p < .001$	$p < .001$	
7. Collective Action	3.09 (1.06)	-0.10	$p = .001$	$p < .001$	$p < .001$	$p < .001$	$p < .001$

Note. Bolded numbers indicate significant correlations. * $p < .05$ ** $p < .01$

Table 5 Means, standard deviations, and Tukey post-hoc analyses for Study 2 variables

Variable	Subversive Humor		Non-Humor		Amenable Response	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Situation Funny	2.56 ^a	1.44	1.86 ^b	1.10	1.53 ^b	0.79
Target Funny	4.19 ^a	1.24	3.21 ^b	1.41	2.59 ^c	1.12
Enraged	2.70 ^a	1.53	3.41 ^b	1.52	3.27 ^{ab}	1.65
Negative Emotions	2.71 ^a	1.14	2.65 ^a	1.29	2.71 ^a	1.40
Perceived Power	4.52 ^a	1.06	4.78 ^a	1.27	2.45 ^b	1.28
Group Efficacy	4.92 ^a	0.94	4.96 ^a	0.99	4.96 ^a	0.89
Collective Action	3.01 ^a	0.98	3.23 ^a	1.13	3.05 ^a	1.07

Note. For each DV, means that *do not share* the same superscript across conditions are significantly different from each other at $p < .05$

were randomly assigned to one of three conditions. In the subversive humor condition ($n = 73$), which was based on the response to “casual sexism” in Study 1’s subversive humor condition, Laura “turns to Mark and says: *Wow, I didn’t know that you are so concerned with energy consumption. If only, more people knew!*” In the non-humor condition ($n = 76$), Laura “turns to Mark and says: *I smile when I choose to, not when a man thinks I should*”. Lastly, in the amenable response condition ($n = 75$), Laura “turns to Mark and says: *Yeah I know, sorry for being such a downer, I’m sure that some coffee will get my energy going for the day*”.

Measures

In terms of perceived *funniness*, we asked participants the extent to which they found the scenario funny, and the extent to which they found Laura herself to be funny. Although these two variables were correlated ($r = .41$, $p < .001$), the correlation was only of medium strength. We therefore tested the two questions separately.

Dependent measures (*Perceived power*; *Negative emotions* towards men, $r = .66$, $p < .001$; *Group efficacy*, $\alpha = 0.90$; *Collective action* intention, $\alpha = 0.93$) were the same as Study 1 but were adjusted to describe the fictional character named Laura rather than Hannah Gadsby and the scenario rather than the content of the video.

Control variables were the same as Study 1, including SES, political orientation, and feminist identification ($\alpha = 0.93$).

Study 2 Results

Means, standard deviations and zero-order correlations are presented in Table 4. Once again, no significant difference was found between conditions in terms of control variables. We examined the effect of our manipulation on all dependent variables using a series of one-way ANOVAs. See Table 5 for means and SDs for all dependent variables separated by experimental condition.

In terms of the extent to which participants found the situation *funny*, we found a significant effect, $F(2,221) = 15.67$, $p < .001$, partial $\eta^2 = 0.12$. As expected, Tukey post-hoc analysis revealed that the humorous condition ($M = 2.56$, $SD = 1.44$) was seen as significantly funnier than both non-humorous conditions ($ps < 0.001$, $ds > 0.55$), and no difference was found between the non-humor ($M = 1.86$, $SD = 1.10$) and amenable response ($M = 1.53$, $SD = 0.79$) conditions ($p = .195$, $d = 0.34$). In terms of the extent to which participants saw Laura as *funny*, we found a significant effect, $F(2,221) = 30.35$, $p < .001$, partial $\eta^2 = 0.21$. As expected, participants in the subversive humor condition ($M = 4.19$, $SD = 1.24$) saw Laura as significantly funnier than in the non-humor condition ($M = 3.21$, $SD = 1.41$; $p < .001$, $d = 0.74$), and the amenable response condition ($M = 2.59$, $SD = 1.12$; $p < .001$, $d = 1.35$). Participants also saw Laura as significantly funnier in the non-humor response condition compared to the amenable response condition ($p = .008$, $d = 0.49$).

In terms of the extent to which participants found the situation *enraging*, we found a significant effect,

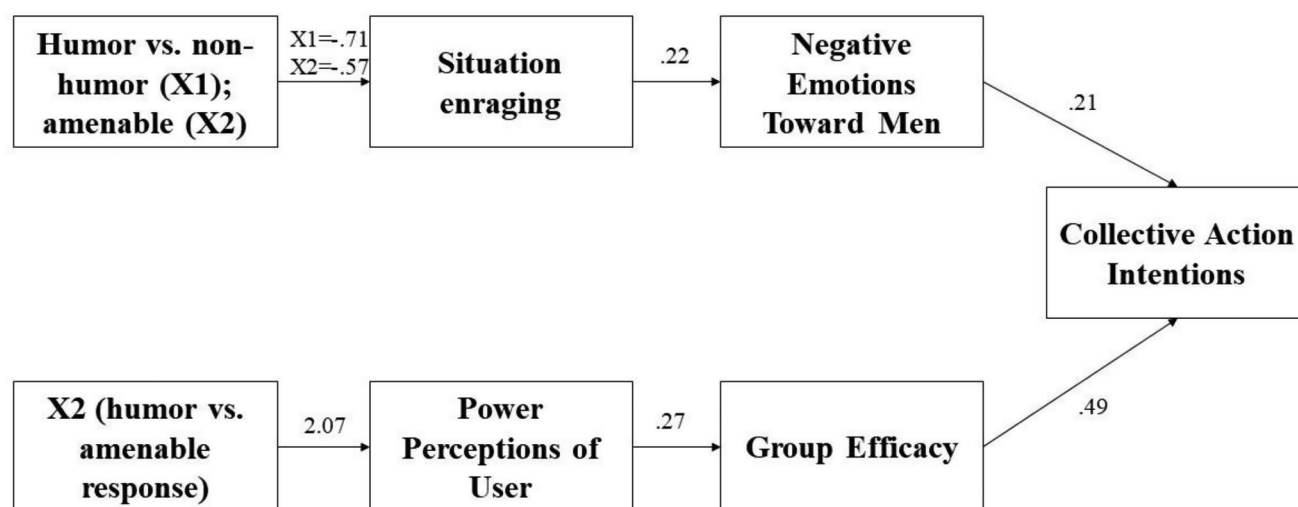


Fig. 3 Parallel serial mediation model comparing experimental conditions' effects on collective action intentions in Study 2

$F(2,221)=4.23$, $p=.016$, partial $\eta^2=0.04$. As expected, Tukey post-hoc analysis revealed that participants were less enraged in the subversive humor condition ($M=2.70$, $SD=1.53$) compared to the non-humor condition ($M=3.41$, $SD=1.52$; $p=.017$, $d=0.46$), but not significantly less enraged than the amenable response condition ($M=3.27$, $SD=1.65$; $p=.073$, $d=0.36$). No difference was found between the non-humor and amenable response conditions ($p=.845$). This supports Hypothesis S2H1a.

A one-way ANOVA revealed a significant effect of the humor condition on the extent to which women found Laura powerful, $F(2,221)=83.01$, $p<.001$, partial $\eta^2=0.43$. Once again, Tukey post hoc analysis revealed no difference in perceptions of power between the subversive humor condition ($M=4.52$, $SD=1.06$) and the non-humor condition ($M=4.78$, $SD=1.27$; $p=.403$, $d=0.22$), but in both conditions Laura was seen as more powerful than in the amenable response condition ($M=2.45$, $SD=1.28$; $ps<0.001$, $ds>1.76$), supporting hypothesis S2H2a. No significant differences were found in terms of negative emotions towards men, group efficacy, and collective action intentions ($ps>0.391$).

Parallel Serial Mediation Models

Once again, we used PROCESS (model 82) to examine two simultaneous and opposite serial indirect effects (condition \rightarrow power perceptions of speaker \rightarrow group efficacy \rightarrow collective action intentions; condition \rightarrow enragement \rightarrow negative emotions \rightarrow collective action intentions) with multi-categorical IV using PROCESS indicator coding, comparing the subversive humor condition to non-humor (coded X1) and to the amenable response condition (control; coded X2).

Table 6 Direct effects, indirect effects, and total effects for serial mediation model in Study 1

Variable		Effect	SE	p	95% CI
Indirect Effect (Via Power Perceptions and Efficacy)	X1	0.03	0.03	--	-0.02, 0.09
	X2	-0.28	0.07	--	-0.42, -0.15
Indirect Effect (Via Anger and Negative Emotion)	X1	0.03	0.02	--	0.01, 0.07
	X2	0.03	0.02	--	0.003, 0.06
Direct Effect	X1	0.09	0.13	0.485	-0.16, 0.35
	X2	-0.004	0.16	0.978	-0.33, 0.32
Total Effect	X1	0.22	0.17	0.206	-0.12, 0.57
	X2	0.03	0.18	0.848	-0.31, 0.38

Note. X1=Subversive Humor vs. Non-Humor; X2=Subversive Humor vs. Amenable Response

Results (Fig. 3; Table 6) showed two potentially offsetting serial indirect effects. Overall, subversive humor reduced the extent to which the situation enraged participants, which was linked to lower levels of negative emotions towards men, which predicted lower collective active intentions (compared to both the non-humor; $X1a*b=0.03$, 95% CI [0.01, 0.07]; and amenable response conditions; $X2a*b=0.03$, 95% CI [<0.01 , 0.06]). This partially supports Hypothesis S2H1.

Simultaneously, subversive humor (compared to the amenable response) increased perceptions of power, which was linked to higher group efficacy, which predicted greater collective action intentions ($X2a*b=-0.27$, 95% CI [-0.42, -0.15]). However, no difference in perceptions of power was found between the subversive humor and non-humor conditions ($X2a*b=0.03$, 95% CI [-0.01, 0.09], supporting Hypothesis S2H2. Results remained significant when controlling for SES, political orientation, and feminist identification.

General Discussion

Humor has been suggested as a way for disadvantaged and minority groups to mobilize for social change (Chattoo, 2019; Kutz-Flamenbaum, 2014). We hypothesized that using subversive humor as a response to gender injustice would have a cancelling out effect on collective action intentions. Specifically, we expected that this effect would occur through two opposite paths: increasing collective action motivation by signaling speaker power and inspiring efficacy, and (simultaneously) decreasing collective action motivation by reducing outrage over a situation and thereby reducing negative emotions towards men as the powerful group.

We tested our hypotheses using two experimental studies, both conducted among self-identified women. In Study 1 we tested the effect of a subversive humorous video (about gender inequality; casual sexism), compared to a non-humorous video (also about gender inequality; sexual assault) and a humorous video unrelated to gender relations. Results showed that subversive humor (compared to non-humor) was linked to less negative emotions toward men through less participant enagement, with subsequently lowering collective action intentions reported. Simultaneously, subversive humor (vs. unrelated humor) increased perceptions of speaker power, which was linked to higher group efficacy and subsequently collective action intentions reported. In Study 2 we presented participants with casual sexism set in a workplace interaction and manipulated the response (subversive humor vs. non-humor vs. amenable response). Results showed that once again, supporting H1, the subversive humor response was linked to lower collective action intentions through decreased enagement and subsequent negative emotions towards men. Simultaneously, supporting H2, the subversive humor response was linked to higher collective action intentions through increased power perceptions of the speaker and subsequently group efficacy.

Theoretical Implications

These results hold several theoretical contributions. First, research on the ability of humor to induce collective action intentions, particularly in the context of gender relations, has compared types of humor (subversive vs. neutral; Riquelme et al., 2021, 2023), or tested the effect of humorous (vs. non-humorous) messages, on collective action as a function of participant feminist identification (Vizcaíno-Cuenca et al., 2023). Less attention has been given to specific mediating mechanisms associated with humor, namely, inspiring efficacy and inducing emotions. Research across diverse research disciplines has shown that humor, as a form of verbal interaction, signals power (Bitterly, 2022; Crawford,

2003; Dunbar et al., 2012; Duncan, 1982; Holmes & Marra, 2002b; Tapley, 2006), which enhances the speaker's ability to convey a message, raise awareness about injustice, and inspire group efficacy. Other lines of work show that humor induces positive affect in observers, helping to create a positive atmosphere and strengthen ingroup bonds (Cheatwood, 1983; Curry & Dunbar, 2013; Neuhoff & Schaefer, 2002), while also potentially reducing the perceived severity of the conveyed message (e.g., Gallardo et al., 2024; Innocenti & Miller, 2016; LaMarre et al., 2014; Nabi et al., 2007). However, this is the first test of both mechanisms leading from humor to collective action intentions in parallel.

Moreover, this research is novel in its examination of the influence of different responses to gender injustice layered within different types of humor on external observers. Recently, gender justice has gained increased interest in the field of collective action. This work focuses on antecedents such as contextual conditions (Radke et al., 2016, 2018), social attitudes (Golec de Zavala, 2022; Iyer & Ryan, 2009; Uluğ et al., 2020) and personality traits (Duncan, 1999). Regarding humor specifically, previous work (Riquelme et al., 2021) has examined different types of humor as driving collective action intentions but did not compare humor to other ways that gender injustice may be communicated. Our studies compared humor to other types of responses, providing initial indications about the influence of different responses (rather than types of humor) to gender inequality on observers, and the way this affects their wider intention to enact social change.

Limitations and Future Research Directions

Despite our efforts, this research is not without limitations. First, we examined the effects of humor, but did not delve deeper into the different types of humor. Humor can take many forms. For example, based on the two-dimensional framework suggested by Martin et al. (2003), humor types can be categorized on a dimension of focus (the self vs. relationships with others), and on a dimension ranging from benign humor to detrimental or harmful humor. We did not use affiliative or self-defeating humor in this research because the aim of the humor itself was to differentiate the speaker (and by extension observers) from the receiver, rather than create closeness and merge identities. However, future work would do well to examine humor (particularly affiliative and complementary humor) directed at feminists and feminism, which may well induce positive emotions in addition to efficacy and enhance the intention to partake in collective action.

Relatedly, we focused on subversive rather than disparagement humor in this paper. The characters in our humorous response conditions (Hannah Gadsby in Study 1 and

Laura, a fictional character, in Study 2) did not disparage or mock men as a group, but rather used humor to highlight the absurdity of the situation. However, subversive humor may be misinterpreted such that the use of satire to amplify prejudice in society (e.g., feminist comedians pointing out patriarchy) may itself, unintentionally, be perceived as disparagement humor (Riquelme et al., 2021; Strain et al., 2016). Recently, researchers have pointed to the importance of considering individual attitudes as affecting the *interpretation* of subversive humor. To this end, Riquelme and colleagues (2021) showed that feminist identity and hostile sexism played a part in the extent to which participants appreciated subversive humor. Dhensa-Kahlon and Woods (2022) noted that humor is an expression of underlying personality traits. In the present studies, we did not gather information about preferred or dispositional humor styles from our participants. Thus, future research should explore whether a participant's preferred humor style, as well as individual attitudes, have a bearing on observations of humor, and the subsequent effects of these on collective action. Additionally, future work should test the effect of different humor types on observers' responses. It is possible that disparaging or mocking men would yield very different results or even backfire due to guilt or unwillingness to over-generalize.

Second, our sample comprised women only, which does not reflect the real audience and observers of humor. This was purposeful, permitting us to explore our specific research idea. However, we are acutely aware that by doing so our research is making assumptions about men and women being opposites and different (Crawford, 2003) – yet, notions of femininity and masculinity may not necessarily be dichotomous, but rather a spectrum or fluid concept. Given this, future research may consider conducting this work with samples made up of men and women, and perhaps more broadly with non-binary or transgender individuals, comparing how levels of identification as the oppressed group may affect their interpretation and response to observed humor. Relatedly, while Study 2 addressed the main limitation of Study 1 (differences in content and intensity of the sexism referred to), it also decreased the ecological validity found in Study 1 by making it more artificial.

Third, though not the focus of our work, our results showed some moderation effects of feminist identification on the extent to which women observers see the humor users as powerful. While previous research shows that anger toward men is more activated among people with greater feminist identification (based on the Social Identity Model of Collective Action; van Zomeren et al., 2008) and who are more committed to feminism (van Zomeren et al., 2018), we found feminist identity to moderate the path leading to collective action through perceptions of power

and subsequently efficacy. These findings suggest the need for further exploration in future studies (see Riquelme et al., 2023). Notably, this raises a more general direction for future research to better understand the types of humor (or other types of messages) most effective in promoting collective action intentions among different target audiences (Vizcaíno-Cuenca et al., 2023).

Practice Implications

The present research holds implications for informing those who seek to promote and inspire collective action and participation for gender equality among women. Although not the focus of our paper, we were struck by women's reaction to the non-humor condition. Participants found the direct response from the receiver in the non-humorous to be powerful and this was associated with more negative emotions towards men. Thus, it seems that women find inspiration in observing other women standing up to men, rather than “standing up” (i.e., responding with humor) to men. In other words, non-humorous, direct gender-related responses led to more anger (at men) and simultaneously increased perceptions of power, both of which were linked to more collective action intentions compared to humor responses. Our results emphasize the importance of understanding the role of humor in changing attitudes. We showed that responses to subversive humor seem to signal capability and power of the speaker, but these responses also imply the importance of attending to the emotional pathway (and the potential of this pathway to undermine efficacy), and perhaps thinking about the *target* of the humor in that context (i.e., the joke's object; cf. Hameiri, 2021). Humor might have decreased negative emotions toward men among some participants while increasing perceptions of power among others based on some personality characteristics (e.g., feminist identification; Vizcaíno-Cuenca et al., 2023), ultimately offsetting the effects across the complete sample.

The idea of interventions which take into consideration different characteristics, personality traits, contexts, and attitudes has recently been suggested in work on personalized interventions for intergroup relations and attitude change (Bar-Tal & Hameiri, 2020; Halperin & Schori-Eyal, 2020). Applying this approach, it is possible to use our results to tailor humorous messages (in terms of message / humor type and target), or to use the “restoration of gravity” approach (Nabi et al., 2007) of ending humorous responses with non-humorous statements or messages to drive the point home. This will enhance the power of (subversive) humor to inform and educate others about social ills and injustice since it will draw attention to these problems and make them accessible (see Friedman & Friedman, 2020) without trivializing or discounting them.

Conclusion

To conclude, our studies found that humorous responses to gender injustice increased collective action intentions through increased perceptions of the speaker's power and group efficacy, and simultaneously decreased collective action intentions through decreased enagement and less negative emotions towards men. Together, these two offsetting paths cancelled each other out, leading to a non-significant effect of humor on women's collective action intentions for gender justice. Our results emphasize the need for a careful consideration of humor as a tool to facilitate social change aimed at promoting action for gender equality.

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Declarations

Ethical Approval Authors confirm that principles of ethical and professional conduct have been followed. Across studies, we followed JARS (Appelbaum et al., 2018) guidelines for reporting quantitative results. We received ethical approval from the relevant institutions for all studies. All assignment to experimental conditions was random, determined by Qualtrics. Participants provided informed consent and were debriefed after each study.

Competing Interests The authors have no competing interests to declare that are relevant to the content of this article.

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