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Published in: Current Psychology

DOI: 10.1007/s12144-022-03712-9

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Document Version Publisher's PDF, also known as Version of record

Publication date: 2023

Link to publication in University of Groningen/UMCG research database

Citation for published version (APA): Weitz, B., & Koc, Y. (2023). The effect of relational status on perceptions of gay disparaging humor. *Current Psychology*, *42*, 26617–26632. https://doi.org/10.1007/s12144-022-03712-9

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The effect of relational status on perceptions of gay disparaging humor

Bastian Weitz^{1,2} · Yasin Koc¹

Accepted: 28 August 2022 / Published online: 26 September 2022 $\ensuremath{\textcircled{}}$ The Author(s) 2022

Abstract

A lot of popular comedians are known for their transgressive humor towards social groups, but disparagement humor is not just restricted to stages or media performances. We encounter it everywhere or perhaps use it ourselves. In this paper, we were interested in how people react to disparaging jokes (i.e., homophobic jokes) across different relational settings. Adapting Fiske's relational models theory, we examined how status differences in relationships affect the perception of and cognition about socially disparaging jokes. In Study 1 (N = 77), we piloted seven potentially disparaging jokes about gay men in relation to how they are perceived. In Study 2 (N = 288), using one joke from Study 1, we constructed vignettes manipulating the *sexual orientation of the source* of the joke in the dyad (i.e., heterosexual, gay, both heterosexual) and their status differences across *relational models* (i.e., high, equal, and low status). We found that the joke was perceived to be less funny, more offensive, and more morally wrong, and to contain more harm intent if it came from a heterosexual person rather than a gay person. Study 3 (N = 197) used concrete status differences in relationships in terms of existing integroup dimensions. Results showed that the joke was perceived as more offensive, less acceptable and more morally wrong when it came from a high authority source (e.g., professor rather than a student). Overall, these findings bring the first evidence to link disparagement humor.

Keywords Disparagement humor · Intergroup relations · Relational models · Gay minority

Humor can arguably be described as one of the most complex social phenomena and scientists from multiple disciplines have tried to tackle the complexities of the adaptive value of humor and its familiar, laughter (see Polimeni &

Statement of relevance This paper presents the first instance of combining an intergroup and interpersonal level of analysis when looking at the appreciation of disparagement humor. Results of the studies can be used in predicting and interpreting the important consequences of disparagement humor on interpersonal relationships including strangers, acquaintances or intimate partners in complex social systems involving multi-level hierarchies. Further research is needed to replicate findings.

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Reiss, 2006 for a concise review of the evolutionary psychology of humor). Perhaps due to its adaptive social function, humor has many benefits including regulating emotions (Samson & Gross, 2012), reducing the negative impact of stressful events on mental health (Yuan et al., 2008), and improving work-related outcomes (Mesmer-Magnus et al., 2012). At the same time, humor can also be used to denigrate others. So far there has been limited interest in this area of research. Specifically, previous research has largely been overly simplistic in its depiction of the actor-receiver dynamics of disparagement humor,¹ giving little attention to the status differences and the distinct impact of the relationship between the one who voices a disparaging joke and the one who hears it. Accordingly, this paper investigates the effect of actor-receiver status differences on the perception

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¹ We are using the term disparagement humor to describe any humor that directly seeks to attack another person or group. The terms offensive and aggressive humor are used throughout the paper when appropriate for the given paper that is being discussed. These terms might carry slightly different meanings and there is no clear definition set forth for these terms. However they are subsumed by disparagement humor as a broader category.

of disparagement humor. Although there is some work that investigates the relationship between status and disparaging humor (see Rouhana, 1996, or Thai et al., 2019), more research is warranted to examine the interpersonal and intergroup dimensions concurrently. Thus, leaning on relational models' theory (Fiske, 1992), we investigated whether perceptions of disparagement humor depend on the status of the source of the joke manipulated through both interpersonal and intergroup dimensions.

The theory behind disparagement humor

Multiple theoretical frameworks try to grasp the cognitive underpinnings of humor, but to date no one theory stands out among the rest. This is particularly true for disparagement humor (see Berger, 1987, and Ferguson & Ford, 2008, for reviews of theory regarding humor and disparagement humor respectively). For our purposes, we decided that superiority theories and cognitive incongruity theories would fit our research question best. The latter typically hinge on an element of inconsistency in expectancy and outcome, while the former generally propose disparaging humor serves self-esteem as a function of downward social comparison (Gerber et al., 2018; Wills, 1981). Particularly, Zillman and Cantor's spin on superiority theory, Disposition theory (Zillmann & Cantor, 1976), specifies that interpersonal/intergroup attitudes towards a particular individual target or group along a dimension determines humor appreciation, such that more negative attitudes about a target lead to greater appreciation of disparagement humor.

In addition to Disposition Theory, Benign Violations Theory (BVT; McGraw & Warren, 2010; Warren & McGraw, 2016) posits that amusement stems from relatively harmless violations of norms in a given context. This approach and extensions of it (e.g., Kant & Norman, 2019) is not specific to disparagement humor, but has interesting implications for its use and enjoyment. More specifically, McGraw and Warren (2010) show that humor is considered benign as a result of a normative environment in which the violated norm is not important/salient and an alternative norm exists that allows for violations, as well as psychological distance to the violation. Disparaging jokes are thus an interesting phenomenon in which violations as severe as derogating someone directly are nonetheless considered benign, at least by some individuals (see Allison et al., 2019 and Argüello et al., 2018a for recent lines of evidence supporting the premises of BVT in disparagement humor). This directly results in the question - who considers disparaging jokes benign and in which situations?

Relevant antecedents to disparagement humor

Prior research has found numerous antecedents to the appreciation and the use of disparagement humor. The first line of research pertains to differences in evaluating moral violations. Moral foundations theory posits five 'foundations' on which cultures build their institutions, beliefs etc.: Care, Fairness, Loyalty, Respect, and Purity (Haidt & Graham, 2007). Which of those foundations is most relevant to moral decision making is context dependent and complicated by such factors as group belonging. For instance, Buie et al. 2021 found that offensive humor is appreciated differently by liberal and conservative U.S. Americans - two groups who endorse the foundations to different extents. Additionally, prior research has linked the stipulations made by moral foundations theory to the aforementioned Benign Violations Theory such that moral foundation sensitivity has an inverse quadratic relationship with funniness, supporting the sweet spot notion of BVT. Moreover, Koszałkowska and Wróbel (2019) showed that care and fairness profiles positively predict the moral judgment passed on anti-gay disparagement humor as mediated by amusement and disgust.

When it comes to individual differences in otherfocused emotions, cognition, and behavior, the tendency to express hatred (Billig, 2001) and malevolent as well as benevolent prejudice (Hodson et al., 2010b) are associated with enjoyment of aggressive humor. Similarly, both state and trait hostility (Strickland, 1959; Weinstein et al., 2011) and aggression (Martin et al., 2003) are connected to hostile humor. Social dominance orientation (SDO) seems to be connected to disparagement humor through cavalier humor beliefs (i.e., dismissive attitudes towards the social implications of disparagement humor) while right wing authoritarianism (RWA) and personal need for structure (PNS) do not seem to play a role (Hodson et al., 2010a; Hodson et al., 2010b). Similarly, people who score high on system justification enjoy jokes targeting lower status groups while people who score low on system justification enjoy jokes targeting high status groups (Baltiansky et al., 2021).

The above concepts directly or indirectly relate to social power, defined here as the "individual's relative capacity to modify others' states by providing or withholding resources or administering punishments" (Keltner et al., 2003, p. 265) and social status, defined here as "social respect, recognition, importance, and prestige" (Fiske, 2010, p. 941). Social power and social status are distinct from but inextricably linked to one another (Fiske et al., 2016). Correspondingly, prior research has investigated the implications of social power/status differences and analogous notions, on the appreciation and use of disparagement humor. First, research has shown that social power positively affects enjoyment of offensive jokes, as mediated by decreased perceptions of inappropriateness (Knegtmans et al., 2018). Analogously, stereotypical masculinity is positively related to the enjoyment of aggressive humor while femininity is negatively related to it (Martin et al., 2003). Higher social class might be related to greater use of aggressive humor (Navarro-Carrillo et al., 2020, but see also Tsukawaki et al., 2022, for contradictory evidence).

Overall, social power and status could potentially be drivers of the enjoyment and use of disparagement humor, but further research is necessary to test this relationship. Accordingly, this paper consolidates these concepts under the umbrella of status and provides a novel perspective by assessing the impact of status dynamics through experimentally manipulating the salience of status in dyadic interactions.

Consequences of disparagement humor

Researchers have shown that disparaging humor is linked to prejudice (Martineau, 1972; Ford et al., 2015). Reading and reciting disparaging jokes negatively affects stereotypes or attitudes about an out-group (Ford, 2000; Hobden & Olson, 1994; Maio et al., 1997). Interestingly, this effect also extends to disparaging jokes targeting an in-group for low identifiers of the said in-group (Argüello et al., 2018b). Moreover, there are potential direct detriments to cognitive performance of individuals on the receiving end of disparaging humor (Weber et al., 2020).

Ford and Ferguson (2004) offer a prejudice norm theory of disparaging humor, which posits that norms of tolerance towards discrimination are connected to offensive humor. Furthermore, Hodson and MacInnis (2016) propose a complimentary model in which offensive humor represents one of three interrelated tools that are used to delegitimize social out-groups. Offensive humor can stand alone to belittle a minority in the shadows of a non-serious mindset, or it can combine with either of the established remaining factors, dehumanization and system justification. These mechanisms could for instance explain the impact and reasoning behind jokes that compare people to another animal species.

Moreover, research in organizational psychology has also found that disparaging jokes negatively affect the work climate (Tremblay, 2017), such that supervisor use of offensive humor can negatively impact relationships with subordinates and their feeling of inclusion. Similarly, supervisor exposure to disparaging humor targeting subordinates led to a more negative evaluation of subordinates (Argüello et al., 2012) Additionally, despite the benefits that leader humor has more broadly, it can shift attitudes towards norm violations within organizations leading to unethical behavior (Ali et al., 2021).

Conversely, in some instances, disparagement humor may also be used by members of the disparaged minority to exercise power in their interactions with members of the majority (Dobai & Hopkins, 2020). This could be the case if a minority member uses their identity to ironically display minority-majority relations in a society or challenge stereotypes and prejudices through subversive humor (e.g. Coolidge, 2020; Miller et al., 2019). Similarly, offensive humor is often used as a communicative tool in social protest (Graefer et al., 2019). On the topic of social power/ status, there appears to be an interesting pattern of consequences of humor use to power/status. While Bäker et al. (2021) note that humor use might increase status through improving perceived relational competence, others found that appropriate use of humor elevates status while inappropriate use depreciates it (Bitterly et al., 2017; Bitterly, 2022). This has interesting implications for high power/ status individuals who on average may enjoy disparaging humor to a greater extent as discussed above. Regardless of the direction, it seems evident that disparaging humor has wide reaching consequences and this is inherently linked to status, which warrants further research into the impact of status differences in humorous interactions and the resulting consequences.

The present research

This paper investigates how differences in social status derived from interpersonal and intergroup dimensions influence the appreciation of disparaging jokes. We chose homophobic jokes in view of the underrepresentation of this category of jokes in the current literature. So far research has identified that anti-gay jokes are evaluated more positively when they come from a gay source as compared to a heterosexual source (Thai et al., 2019), extending similar findings for sexist jokes by Rouhana (1996). This could be because they are joking about their own ingroup which does not undermine any other group, thereby alleviating perceived stress comes when mentioning groups that are status incongruent. Our present studies seek to replicate (H1) and expand on these findings by implementing a well-known model in the field of interpersonal contact. Relational models theory (Fiske, 1992) aims to categorize and explain a vast extent of interactions, cognitions, and affect across relationships (see Haslam, 2004). The theory posits four central modes of interaction that define one's relation to others and their role in this relationship.

Communal Sharing: "Membership in a natural kind. Selfdefined in terms of ancestry, race, ethnicity, common origins, and common fate. Identity derived from closest and most enduring personal relationships". Authority Ranking: "Self as revered leader or loyal follower; identity defined in terms of superior rank and prerogative, or inferiority and servitude".

Equality Matching: "Self as separate but co-equal peer, on a par with fellows. Identity dependent on staying even, keeping up with the reference group".

Market pricing: "Self defined in terms of occupation or economic role: how one earns a living. Identity is a product of entrepreneurial success or failure" (Fiske, 1992, p. 695).

In this set of studies, we focus on two of these modes, Authority Ranking (hereafter referred to as high authority (HA) and Low Authority (LA) conditions based on the relative authority of the actor) and Equality Matching (EM) since they provide the strongest conceptual difference to one another and therefore serve as a good platform for initial research into this area. Overall, an introduction of relational models to the examination allows us to classify real world scenarios in which disparaging humor could be used. Previous research already found evidence for differences in perceived self (shame and guilt) and other blaming (contempt, anger, disgust) emotions across violations of relational models and cultures (Sunar et al., 2021). Similarly, Simpson et al. (2016) build on Relationship Regulation Theory (Rai & Fiske, 2011) and Moral Foundations Theory (Graham et al., 2013, see above for an explanation) to find that relational context has an independent influence on appreciation of moral violations in general. Furthermore, research by Martin et al. (2004) shows that dominance is one of the major drivers of negative humor in dyadic supervisor/subordinate interactions aside from sex. Lastly, Zillmann and Cantor (1972) showed that relative authority in dyads had an impact of the evaluation of jokes, such that jokes were better received when the subordinate dominated the superior in a humorous way, rather than vice versa. Hence, we predict that jokes will be most appreciated when the source of the joke is in a low status position relative to the other (H2). Moreover, we predict an interaction effect (H3) based on the incongruity of low status group affiliation and high dyadic status (see below).

Overall, the present set of studies seeks to address the following three hypotheses testing the effect of intergroup (H1) and interpersonal status differences (H2), as well as their interaction (H3) on humor appreciation.²

H1: *Orientation*. When the source of the joke is gay rather than heterosexual, the joke will be appreciated more (i.e. funnier and less offensive etc.). (Study 1 & Study 2)

H2: *Relational Models*. When the source of the joke is in a LA position relative to the other, the joke will be appreciated more as compared to EM and HA conditions (i.e. funnier and less offensive etc.). (Study 2 & Study 3) H3: *Interaction:* There will be an interaction effect such that when the joke comes from a gay source in a HA position the joke and source will be appreciated more positively than when it comes from a heterosexual source in the same position. This difference will shrink through EM to LA (Study 2)

Study 1

The goals of this study were twofold. First, it served to discern between multiple jokes to find one that would elicit average responses across several dimensions. This followed the pragmatic aim to use a single joke in following studies in the assumption that generalizations can be made from it to other disparaging jokes. Furthermore, this first study should provide preliminary evidence for an effect of sexual orientation of the source of the joke on several variables, replicating scarce prior findings. Especially due to this scarcity of research into homophobic humor assessing the impact of the status of the author of the joke, a preliminary study was deemed necessary to substantiate our hypothesis and construct a plan for further research. No hypothesis is set for how the jokes differ from one another on any of the dependent variables. We do however set a hypothesis on the effect of sexual orientation based on Thai et al.'s findings (Thai et al., 2019).

H1: *Orientation* When the source of the joke is gay rather than heterosexual, the joke will be perceived as funnier, more acceptable and more empowering, and it will elicit less negative affect and less perceived negative intent.

Method

Participants

The sample initially consisted of 139 first year psychology students at the university where the authors are based who participated for course credit. We relied on self-report measures of sexual orientation to remove 29 students, such that the final sample consists solely of heterosexual participants. Additionally, 33 students were excluded from analysis due to failure of complying with requirements, such as understanding the jokes correctly (see *Manipulation checks* in the measures below). The final sample consisted of 77 participants (72.7% female; $M_{age} = 20.1$, $SD_{age} = 2.12$).

² The actual hypothesis will vary slightly in terms of included variables. However, funniness and offensiveness as the key variables to humor appreciation are included in all cases.

Design and procedure

Participants read one of two vignettes, which we manipulated to either introduce a gay or a heterosexual character named Jake. We collected seven jokes from various online sources, and participants read all seven homophobic jokes (see Appendix for list of jokes). We created a story about Jake as follows:

Jake, a heterosexual (gay) man, is out one evening and uses a few jokes in his conversations. We have noted down a couple of these jokes, which you now get to react to. We ask to keep above mentioned in mind when answering the following questions.

Measures

Perceived offensiveness Four items adapted from Thai et al. (2019) were used to measure the participant's evaluation of the joke's offensiveness (i.e., "To what extent do you believe that this joke is offensive/insulting/distasteful/judgmental?"; 1 = not at all, 7 = a great deal). The reliability was good, $\alpha = .98$.

Perceived funniness Four items adapted from Thai et al. (2019) were used to measure the participant's evaluation of the joke's humor (i.e. "To what extent do you believe that this joke is funny/amusing/humorous/entertaining?"; 1 = not at all, 7 = a great deal). The reliability was good, $\alpha = .95$.

Negative affect toward joke Six items adapted from Thai et al. (Thai et al., 2016) were used to assess the level of negative affect towards the joke (i.e. "How does this joke make you feel? Angry/Sad/Anxious/Uneasy/Happy(reverse scored)/Calm (reverse scored)"; 1 = not at all, 7 = a great deal). The reliability was good, $\alpha = .95$.

Perceived negative intent Three items were used to measure the participant's cognitions about the author of the joke. One of the items was adapted from Thai et al. (2016), the rest were created (i.e. "To what extent do you believe that the one who told the joke is homophobic/meaning harm/just making a joke (reverse scored)?"; 1 = not at all, 7 = a great deal). The reliability was good, $\alpha = .96$.

Perceived empowerment One item was created to measure the participant's perception of the author's feeling of empowerment (i.e. "To what extent do you believe that he feels empowered?"; 1 = not at all, 7 = a great deal).

Perceived acceptability One item adapted from Thai et al. (2019) was used to measure the participant's perception of the acceptability in making this joke (i.e. "How acceptable is it for him to make this joke?"; $1 = extremely \ acceptable$, $7 = extremely \ unacceptable$).

Manipulation checks Two items were created to assess the participant's correct understanding of their vignette (i.e. "What was the sexual orientation of the person who made this joke?") *and* correct understanding of the joke, where multiple answer choices were possible (i.e. "Who do you believe is the target of this joke?"; A minority based on ethnicity / A minority based on sexual orientation / A minority based on gender / Other). Based on responses to these two questions, we determined an exclusion criteria.

Results

Exploratory analysis of the data revealed that assumptions of normality and homoscedasticity were violated for most dependent variables split by group. Therefore, we choose to conduct our analysis using robust statistical methods (see Little et al., 2013). More specifically, we ran Yuen's t-tests (Yuen, 1974) using the Walrus package (Love & Mair, 2017) for JAMOVI (the Jamovi Project, 2020). This test in particular can improve power in comparison to parametric tests for two independent groups (Pero-Cebollero & Guardia-Olmos, 2013).

Yuen's independent samples t-test showed significant differences across a large portion of dependent variables for the sexuality of the source of the joke (see Supplemental Material, p. 2). The direction of the effects (if significant) was as predicted: Jokes were perceived as less offensive, funnier, and more acceptable, as well as eliciting less negative affect and less perceived negative intent when it came from a gay source. Particularly, in regard to funniness, offensiveness, and acceptability our results replicate Thai et al.'s findings (Thai et al., 2019).

Based on the results we selected the following joke: "How many gays does it take to screw in a light bulb? Two. One to screw it in and another to stand around and say 'FABU-LOUS'" for the following studies. This joke in particular did not show deviance from the general pattern observed for all jokes across all dependent variables for both values of the independent variable. That is to say that this joke was not rated as the most offensive/funny etc. by participants on average. Moreover, it provides adequate effect sizes for the manipulation of sexual orientation such that we could expect higher power within the constraints of our sample size for the following study (see Supplemental Material).

Discussion

Overall, we examine how a number of disparaging jokes are perceived by heterosexual people across a number of dimensions and found preliminary evidence that sexual orientation of the source of the joke has an important impact in how jokes are appreciated by an outsider. This evidence substantiates our hypothesis for more rigorous examination in the following studies. Additionally, this study achieved results that allowed us to pick a relatively representative joke to use for the following studies, that can also be used in any other future research on this topic or replications of this study. Moreover, we found initial evidence that the appreciation of jokes varies strongly from joke to joke in a within-subject design. This has important implications for the generalizability of our findings and compounding results into theories that accommodate such potentially varying results promises a fruitful area for further research.

Besides general limitations which are addressed at a later point in this article, it is important to stress that participants were 73% female. In conjunction with the importance of gender in the appreciation of humor (see DeLuca, 2013; Martin et al., 2003) this is a major limitation in generalizing our findings.

Study 2

The first aim of Study 2 is to conceptually replicate the findings from Study 1 regarding the sexual orientation of the source of the joke with a sample from the United States. This is essential to generalize not just to a specific population but also across populations, moving from a student sample in the Netherlands to a general public sample in the United States. Results could provide a proximally limited answer to how group identity of the source impacts the appreciation of a disparaging joke, at least in the context of sexual orientation. Furthermore, this study aims at providing evidence for an effect of relational models on the perception of disparagement humor. This additional effect is important to test the effect of interpersonal status differences on the appreciation of disparaging humor. Therefore, the crux of this study is the exploration of status effects on two different levels of relational identity and whether these are independent or interact with one another. The research hypotheses thus are the following:

H1: *Orientation*. When the source of the joke is gay rather than heterosexual, the joke will be perceived as funnier, more morally right, more acceptable and more empowering, and it will elicit less negative affect and less perceived negative intent, regret as well as aggressive intergroup emotions (i.e. disgust, anger, contempt). H2: *Relational Models*. When the source of the joke is in a LA position, relative to the other, the joke will be perceived as funnier, more morally right, more acceptable and more empowering and it will elicit less negative

affect and less perceived negative intent, regret as well as aggressive intergroup emotions (i.e. disgust, anger, contempt) followed by EM and HA conditions.

H3: *Interaction* There will be an interaction effect such that when the joke comes from a gay source in a HA position the joke and source will be perceived significantly funnier and more morally acceptable than when it comes from a heterosexual source in the same position. This difference will shrink through EM to LA.

Method

Participants

A power analysis was conducted using G*Power (Faul et al., 2009) (cohen's f = 0.25, alpha=0.05, power=0.95), which provided an estimate of the sample size of 279. Due to the expected failure of manipulation checks in accordance with the pilot, the sample initially consisted of 336 citizens of the United States recruited through Prolific, who were each rewarded at the rate of \$6 per hour (the duration of the study was expected to be around 15 min). We pre-screened potential participants for heterosexual orientation by using Prolific's sample selection tool. Seven participants were excluded due to non-completion, as well as a further 41 participants, who failed one or both of two manipulation checks (described below). The final sample included 288 participants (52.4% female: M_{age} = 36.05, SD_{age} = 12.35).

Design and procedure

We used a 2 (sexuality - dyad: heterosexual source vs. gay source) \times 3 (relational model - dyad: high authority ranking (HA) author vs. low authority ranking (LA) author vs. equality matching (EM)) between groups design. Participants read one of the six vignettes (see Table 1) introducing a fictional dyad, Peter and James, interacting according to the manipulations as mentioned. Moreover, the participants also read the homophobic joke, (i.e. *How many gays does it take to screw in a light bulb? Two. One to screw it in and another to stand around and say 'FABULOUS'*) which they were made to believe one of the characters told the other. After reading the vignettes, participants were asked to evaluate the joke and interaction between the dyad on a series of dimensions.

Measures

Measures for perceived offensiveness, perceived funniness, negative affect toward joke, perceived negative intent, perceived empowerment, and perceived acceptability were the same as Study 1. All the reliabilities were good, $\alpha \ge .74$. Additionally, we measured the following:

Epilogue

Table 1 Summary of vignettes used for manipulation

Introduction	James and Peter are very close friends. James (Peter) is gay, and James (Peter) is heterosexual.
Authority Ranking (HA/LA)	Peter "calls the shots" and takes the initiative in this friendship and James tends to follow along. Peter usually gets his way and takes responsibility for things. James is a follower in this friendship and backs Peter up, knowing that he can depend on him to show the way when it is needed.
Equality Matching	Their friendship is structured on a 50:50 basis. They both feel like themselves and they are pretty equal in the things they do for each other. If the two of them were dividing something, they would both probably split it down the middle into even shares. They often take turns doing things. As a way of keeping things balanced, they more or less keep track of favors and obligations between themselves. And one gets irritated when he feels that the other person is taking more than he is giving.

Out one evening, James (Peter) uses a few jokes in his conversations with James (Peter). We have noted down one of these jokes, which you now get to react to:

James (Peter), a straight (gay) man, says to James (Peter) a straight (gay) man:

Parenthesis signal the alternative option in manipulating sexual orientation of the source of the joke

Perceived morality One item was created to measure the participant's perceptions of the morality in making this joke (i.e. "To what extent do you think making this joke was morally right or wrong?"; -3 = morally very wrong, 3 = morally very right).

Perceived social emotions Two items where used to measure whether the author of the joke felt regretful of his joke (i.e. "To what extent do you think the friend who made the joke felt the following? Shame/Guilt" 1 = not at all, 7 = a great*deal*). The reliability was good, r = .95.

Perceived aggressive intergroup emotions We asked participants to what extent they felt anger, contempt, and disgust towards the source of the joke (CAD; Rozin et al., 1999). We ran the analysis separately for each emotion, but the results were the same if we ran the analysis as a composite score and they were highly correlated ($r \ge .89$, p < .001). So, we used the composite score, and the reliability for the three item measure was good, $\alpha = .96$.

Manipulation checks Two items were created to assess the participant's correct understanding of their vignette (i.e. "What was the sexual orientation of the person who made this joke?" and "How would you describe the friendship between James and Peter?").

Results

Assumptions of normality and homoscedasticity were violated; therefore we performed robust analysis of variance (RANOVA) as proposed by Welch (1951), using the WRS2 package (Mair & Wilcox, 2020) for R (R Core Team, 2020) and JAMOVI (the Jamovi project, 2020). For a matrix of correlations between dependent variables consult the Supplemental Material (p. 3).

Hypothesis 1

Orientation Two-way RANOVAs showed large significant effects for all dependent variables (see Table 2). All effects fell in line with our hypothesis: When the source of the joke was gay rather than heterosexual, the joke was perceived as funnier, more morally right, more acceptable and more empowering, and it elicited less negative affect and less perceived negative intent. These effects are consistent with Thai et al.'s finding (Thai et al., 2019) and Study 1.

Hypothesis 2

Relational models Contrary to our hypothesis, our analysis revealed no significant effects of the manipulation of relational models on the dependent variables, aside from perceived offensiveness and negative affect (see Table 3). Pairwise post hoc tests showed that for perceived offensiveness, the effect was as predicted. The joke is least offensive when it comes from a LA source (i.e. LA – HA: Ψ =-1.50, $p \le .008$). Similarly, the joke produced significantly more negative affect in the same condition (i.e. LA – HA: Ψ =-.73, p≤.015). Although the main effects were non-significant (but close) for acceptability of the joke and levels of felt shame and guilt, we looked at the pairwise comparisons. They showed significant differences in the acceptability of the joke (i.e. LA – HA: $\Psi = 1.37$, $p \le .021$) and in the amount of shame or guilt the source of the joke was perceived to feel (i.e. LA – HA: $\Psi = .64, p \le .038$).

Hypothesis 3

Interaction Contrary to our hypothesis two-way RANOVAs revealed no significant interactions between the sexual orientation of the source of the joke and their relative, dyadic social status (see Table 4). Given the power of this study, it is hard to reliably deduct conclusions regarding interactions between the two variables.

Table 2 Two-way RANOVA results for the factor, orientation

	Q	$p \le$	M_{gay}	SE	$M_{heterosexual}$	SE
Offensiveness*	40.67	.001	1.93	.13	3.34	.17
Funniness*	5.15	.025	3.88	.21	3.27	.21
Negative affect*	24.44	.001	2.68	.08	3.23	.09
Homophobic intent*	50.52	.001	1.16	.06	2.12	.13
Empowerment*	7.41	.008	4.00	.20	3.44	.16
Morality*	7.73	.007	4.01	.10	3.70	.07
Acceptability*	57.11	.001	5.56	.18	3.83	.11
Regret*	23.42	.001	1.12	.06	1.71	.12
CAD*	81.87	.001	1.21	.06	2.88	.18

*p < .05

Table 3 Two-way RANOVA results for the factor, relational model

	Q	p≤	M _{HA}	SE	M _{EM}	SE	M _{LA}	SE
Offensiveness*	7.81	.024	3.01	.25	2.80	.20	2.22	.20
Funniness	1.64	.445	3.45	.25	3.39	.25	3.78	.20
Negative affect*	6.44	.045	3.15	.14	3.00	.10	2.78	.10
Negative intent	1.63	.450	1.71	.17	1.54	.14	1.57	.14
Empowerment	3.08	.222	3.95	.20	3.64	.21	3.45	.25
Morality	0.55	.761	3.75	.08	3.85	.08	3.88	.07
Acceptability †	5.54	.069	4.22	.21	4.51	.21	4.98	.20
Regret †	4.89	.096	1.21	.08	1.35	.11	1.57	.14
CAD	2.01	.370	2.15	.21	1.95	.22	1.84	.21

*p < .05. † significant pairwise comparison; bold marks significant effects

Table 4 Two-way RANOVA results for the interaction between the factors, orientation and relational model

	Q	$p \le$
Offensiveness	.560	.759
Funniness	.570	.754
Negative affect	4.77	.099
Negative intent	2.55	.289
Empowerment	2.21	.339
Morality	0.90	.641
Acceptability	2.00	.375
Regret	1.26	.538
CAD	.480	.789

*p < .05

Discussion

This second study provides the first evidence on how different levels of relational identities impact the appreciation of disparagement humor in one design. Our results show that sexual orientation of the source of the joke has strong and consistent effects on the appreciation of an anti-gay joke. More specifically, jokes elicited more positive and less negative outcomes when they were voiced by a fictional gay character compared to a straight character. Additionally, this study pioneers the use of Fiske's relational models to test how interpersonal status differences affect appreciation of a joke. Results indicate that perceived offensiveness and negative affect of participants was higher when the source of the joke was in a high authority position compared to a low authority position. Replication of this effect in another context is necessary to substantiate findings similar to the way Study 2 replicated Study 1's findings on the effect of sexual orientation.

Overall these results allude that the interpersonal context might not be as important for the appreciation of the joke compared to the group belonging of the actor and therefore the content of the joke. Further research using a regression framework could provide further explanation as to the differing effects of the two facets carrying information on social status. Moreover, sex and age differences were not probed due to a lack of power but might have an important role to play.

Study 3

The aim of Study 3 is to conceptually replicate the findings from study two pertaining relational models. In this light, sexual orientation was dropped for parsimony's sake. Studies 1 and 2 have sufficiently established the effects of sexual orientation. This study seeks to provide further evidence for the observed effects of the relational models manipulation on more concrete examples. Therefore, this study seeks to replicate findings from Study 2 in regard to H2, which predicts the following.

H2: *Relational Models.* When the source of the joke is in a LA position relative to the other the joke will be perceived as funnier, more morally right, more acceptable and more empowering and it will elicit less negative affect and less perceived negative intent, followed by EM and HA.

Method

Participants

A power analysis was conducted using G*Power (Faul et al., 2009) based on previous findings (Cohen's f = 0.225, alpha=0.05, power=0.8), which provided an estimate of the sample size of N=195. Due to expected failure of manipulation checks in accordance with the prior studies, the sample initially consisted of 231 citizens of the United States recruited from Prolific, who by average were each rewarded at the rate of \$8 per hour (the duration of the Study was expected to be 15 min.). As in Study 2, we pre-screened potential participants for heterosexual orientation by using Prolific's sample selection tool. One participant was excluded due to non-completion, as well as further 33 participants, who failed manipulation checks or the mentioned sexuality criterion. The final sample included 197 participants (48.7% female: $M_{age} = 35.39$, $SD_{age} = 11.47$).

Design and procedure

We manipulated relational models in a fictional dyad as before in a between groups design. Participants read one of three vignettes (see below) introducing a fictional dyad, which consisted of either a professor and a student or two students. Moreover, the participants also read a homophobic joke, (i.e. *How many gays does it take to screw in a light bulb? Two. One to screw it in and another to stand around and say 'FABULOUS'*) which they were made to believe one of the characters told the other. After reading the vignettes, participants were asked to evaluate the joke and interaction on a series of dimensions.

James is a gay student (professor), and Peter is a straight student (professor).

During one meeting, Peter uses a few jokes in his conversations with James. We have noted down one of these jokes, which you now get to react to: Peter, the straight student (professor), says to James, his gay professor (student):

Measures

Measures for perceived offensiveness, perceived funniness, negative affect toward joke, perceived negative intent, perceived acceptability, perceived morality, perceived social emotions, perceived aggressive intergroup cognitions, and manipulation checks were the same as Study 2. All the reliabilities were good, $\alpha \ge .78$.

Results

Similar to Study 2, correlations amongst variables indicated that shame and guilt were highly related to each other, and so were contempt, anger and disgust. Accordingly, we used composite scores for each sets of variables. Moreover, assumptions of normality and homoscedasticity were violated; therefore we performed RANOVAs. For a matrix of correlations between dependent variables consult the Supplemental Material (p. 3).

One-way RANOVAs showed that relational models had a significant effect on perceived offensiveness, morality, and acceptability (see Table 5). Post hoc comparisons using adjusted alpha levels revealed that the joke was perceived as significantly more offensive in the HA condition compared to the EM condition (i.e. EM – HA: Ψ =-1.04, $p \le .021$) followed by LA. No significant differences were found between HA and LA, and between EM and LA. In terms of morality, the joke was perceived to be most morally right in the EM condition followed by HA (i.e. EM – HA: $\Psi = .68$, $p \le .002$), but no significant difference was found between HA and LA as well as EM and LA. Similarly, the joke was perceived significantly more acceptable in the EM condition compared to either LA (i.e. EM – LA: $\Psi = .67, p \le .024$) or HA (i.e. EM – HA: $\Psi = 1.10$, $p \le .001$), conditions. These results run counter to our hypothesis that the joke would be most offensive, least morally sound and acceptable in the HA condition followed by EM and LA. Furthermore, in regard to offensiveness, these results run counter findings from Study 2, supporting our hypothesis. Therefore, they warrant further exploration.

Discussion

The third study of this series found that in a real-world scenario in which relational models are not explicitly expressed but rather implied, perceived offensiveness was significantly
 Table 5
 One-way RANOVA

 results for the factor, relational
 models

	F	df1, df2		ξ	M _{HA}	SE	M _{EM}	SE	M _{LA}	SE
Offensiveness*	4.00	2, 70.61	.023	.27	4.86	.21	3.82	.32	4.37	.27
Funniness	1.03	2, 72.48	.362	.15	2.23	.31	2.76	.32	2.79	.23
Negative affect	.08	2, 69.87	.920	.14	3.68	.12	3.60	.18	2.68	.16
Negative intent	.47	2, 69.88	.648	.12	3.15	.17	2.92	.27	3.22	.21
Morality*	6.71	2, 77.64	.002	.30	2.91	.16	3.59	.12	3.14	.16
Acceptability*	8.47	2, 73.66	.001	.31	2.22	.23	3.31	.11	2.64	.23
Regret	2.09	2, 77.03	.130	.21	1.96	.23	1.44	.15	1.83	.25
CAD	2.07	2, 67.61	.135	.21	4.29	.18	3.60	.32	3.98	.26

*p < .05; bold marks significant effects

higher in the HA condition compared to the EM condition. Additionally, morality and acceptability were both significantly higher in the EM condition compared to the HA condition or in the case of acceptability even the LA condition. This shuffle of the pattern from HA > EM > LA in negative outcomes to HA>LA>EM from Study 2 to Study 3 can be interpreted along multiple lines. In particular, we argue that this is the result of the context change and that a potential limitation is the unique scenario that a student-professor relationship displays. Without a doubt, it is an authority ranking scenario but the particular social norms that govern this context make an interaction in which a professor uses a disparaging joke in a conversation with a student highly normatively inappropriate. That could explain why a student-student interaction is deemed the least offensive, most morally right, and acceptable. It is plausible that other context induce another pattern even. Therefore it is crucially important to gather further data on this particular implementation of a status manipulation in dyadic interactions that commonly occur (e.g. employer-employee, parent-child).

General discussion

Jokes that disparage a social out-group are enjoyed more than when they disparage a social in-group (Herzog, 1999) and witnessing these jokes can have negative effects on the minority for instance through perpetrating prejudice (Ford & Ferguson, 2004). Nevertheless, it is often viewed as benign since it can elicit positive affect under certain situations and with certain audiences, as our research shows. Previous work on the impact of disparaging humor largely focused on manipulating the identity of the source of the joke (e.g. manipulating the sex of the source of a sexist joke; Rouhana, 1996). In addition to this, we acknowledge that communications of such manner also occur within interpersonal relationships between the receiver and the source of the joke. Therefore, we predicted along the lines of Relational Models Theory (Fiske, 1992) that when the source of the joke is in a LA position, relative to the other, the joke will be perceived as funnier, more morally right, more acceptable, and more empowering, and it will elicit less negative affect and less perceived negative intent, followed by EM and HA. This comes in addition to a prediction regarding intergroup social identity and an interaction between those two.

In Study 1, we piloted seven jokes in two experimental conditions and found large variation in how jokes were perceived. Furthermore, our findings showed clear support for an effect of the sexuality of the source of the joke on our dependent variables, such that when the source of the joke was gay rather than heterosexual the joke was perceived as funnier, more morally right, more acceptable and more empowering and it elicited less negative affect and less perceived negative intent. In Study 2, we replicated the findings regarding sexuality of the source of the joke and found that differing relational models only had an effect on the perceived offensiveness of the joke. This effect was relatively small but in the hypothesized direction. Finally, our third study showed that using concrete examples of relational models, the effect on offensiveness becomes stronger, effects for morality and acceptability could be found. Interestingly, the pattern of the effect of offensiveness ran counter to hypothesis, such that the joke was perceived to be the least offensive in the EM condition.

Hypothesis 1

Sexual orientation Our findings fall in line with the several lines of research (Gallois & Callan, 1985; Thai et al., 2016, 2019), such that there is now ample evidence for a pattern in the effect of the knowledge of group belonging on the impact of disparagement humor on offense and funniness. Jokes on behalf of a minority are perceived as funnier and less offensive when it comes from someone who is known to belong to the disparaged minority. Based on research by others (Thai et al., 2019) and our own, we can reasonably argue that this effect holds for sexual orientation as a group identifier. An interesting point is that in our research the

effect was much stronger for perceived offensiveness than for funniness, while Thai et al. found the opposite.

Additionally, our research extents this pattern to the variables: negative affect toward joke, perceived negative intent, perceived empowerment, perceived acceptability, perceived morality, perceived social emotions, and perceived aggressive intergroup cognitions. These explorations allow us to see just how vast of a difference it makes, which sexual orientation the source of the joke has, and how far the effects of disparagement humor extents.

Given that our study tested third party appreciation of disparaging jokes through fictional vignettes, we argue that the observed effect sizes will be greater in real life. Additionally, the effect held across the relevant studies even if the vignettes changed from describing an individual to describing a dyad. The statistical difference between these two scenarios could not be probed since there were too many potential obfuscating factors, but it is reasonable to assume that there were small context dependent effects on our dependent variables given that the dyads always consisted of one heterosexual and one gay men. Furthermore, our studies show this effect holds for a sample of US citizens as well as a sample of individuals from largely western European countries.

Many existing theories lack specificity to directly explain the impact of different sources of the joke. They, as exemplified by dispositional theory (Zillmann & Cantor, 1976), rather discuss appreciation of disparagement humor as a function of attitudes towards the targeted minority, regardless of the source of the joke. Therefore, we can use the framework of these theories only in discussing how funny or offensive the joke was perceived to be in general. This is helpful since we imagine it is far more likely for a majority member to use these jokes. Consequently, a dispositional theorist could argue that the participants on average held rather positive dispositions towards the gay minority given that they judged the joke to be only marginally funny and quite offensive when coming from a heterosexual source.

However the implications of this study reach beyond the scope of these superiority theories. A dispositional theorist might have a hard time explaining our findings for when the source of the joke was gay. The dispositions towards the gay minority are most likely the same but the appreciation of the joke changes drastically. The joke is suddenly perceived to be very funny and not very offensive. Hence, we believe three mechanisms could explain our findings. First, in line with benign violations theory (McGraw & Warren, 2010) and cavalier humor beliefs (Hodson et al., 2010b): social norms regarding the oppression of traditional, modern or aversive prejudices could be further lifted by the mere knowledge that a member of the minority is using the joke in line with Justification Suppression Model (Crandall & Eshleman, 2003). Second, participants could display a sort of social-meta-cognition, in inferring that the gay individual most likely means no harm in the joke or is using the joke in irony. Third, participants perceive dissonance of a homophobic joke being voiced by a gay guy as humorous itself, similar to the mechanisms of the incongruity-resolution theories of humor more generally (see Berger, 1987) and Benign Violations Theory in particular. Overall, these results parallel prior research in transgressive behaviors to the extent that offenses from low-status individuals are perceived as more benign then from high-status groups (e.g., Fragale et al., 2009).

Hypothesis 2

Relational models The second and third study represent the first instance in which the relational models (Fiske, 1992) of Authority Ranking and Equality Matching were manipulated in the context of disparagement Humor. We therefore probed the interpersonal aspects of the situations in which offensive jokes are spoken. In turn, our analysis only found an effect for the variables perceived offensiveness, negative affect, morality, and acceptability. Of these four, only the first one really appeared significant across both studies, while the others appeared in one and not the other. Interestingly, two different patterns emerged for offensiveness. In Study 2, the joke was the least offensive if the source of the joke was in a low authority position. In Study 3, this was the case for when the source of the joke was in an equality matching position. Several design differences could account for these differences in findings. First, since we decided that the equality matching dyad in study three should consist of two students, the stereotypes that persist towards this group might allow for disparagement humor to be perceived in a lighter way. Furthermore, professors could be seen as a positive authority wherefore a student speaking up to a professor in such a way is seen as a major transgression of boundaries and offensive in its own right. Lastly, the scenarios do not make it clear, whether the professor and student like each other or not, regardless of the relational model involved.

It is important to note that all the effect sizes were relatively small, although we expect the effect to be much larger in real life concrete scenarios. This believe is substantiated given that the effect size increases from Study 2 to 3, in which we introduced concrete examples of relational models instead of vague descriptions. Similarly, we believe that some of the differences in dependent variables, which did not prove to be significant (e.g. perceived funniness), might do so in real life scenarios. Additionally, multiple other limitations of our study might have had an impact on the observed pattern and will be discussed later.

Nevertheless, non-significance of these variables in regard to disparagement humor in our study is still a valuable finding and deserves further discussion. That disparaging jokes are not necessarily perceived as less funny when they come from an authority figure has interesting applications to contexts such as workplace conduct or educational environments. That is not to say that disparagement humor in interactions that are inherently hierarchical in nature is appropriate. As evidenced by our findings, this could backfire as jokes by authority figures could be seen as more offensive. Prior work has shown analogous results (Tremblay, 2017) and evaluated the concrete negative effects that disparaging leader humor can have on subordinates (Ali et al., 2021; Argüello et al., 2012; Hayes, 2021).

Hypothesis 3

Interaction In contrast to our prior two hypotheses, our data provided no support for an interaction effect between the sexuality of the source of the joke and the relational model of the dyad. There seems to be little to no influence of intergroup processes on interpersonal process in the appreciation of disparaging humor. The only evidence for an effect comes from a marginally significant effect for the variable, negative affect. Again, this could be entirely different for more concrete real-life scenarios, since our study design restricts us in looking at the process from periphery. Furthermore, our study was underpowered to detect an interaction effect.

Disclaimer

We would like to note that as authors of this paper, we believe that the jokes examined may be perceived to have sexual prejudice (i.e., intending to harm members of the gay minority group). Moreover, the joke used in Study 2 and 3 joke could be perceived as a micro-aggression by members of the gay minority group. We want to make clear that this research is not intended to denigrate or be used for any such purposes but may include aspects that can be deemed offensive. In particular, the method sections contain the description of disparaging jokes that are used in experimental manipulations. The aim of this research is to analyze the impact of said jokes in hopes of gathering information relevant toward societal change for the betterment of the lives of disparaged minorities.

Limitations

Disparagement humor is a very complex social phenomenon. Consequently, the study of disparagement humor comes with many restrictions and pitfalls, some of which we were able to control. This section serves to inform the reader on the ones that might have had an impact on our results or that restrict the exploratory power of our findings. It is by no means an exhaustive list and researchers should approach the study of offensive humor with the necessary caution.

First and foremost, our pilot showed that no joke evokes the same response as the other. In fact the jokes were so different that it was very difficult to decide for a joke that accurately represents the majority. Furthermore, our own beliefs would likely have played a role in selecting this particular joke, and even before in selecting the seven jokes that were to be tested in the pilot. Important is that different jokes apparently lead to vastly different results and might even lead to entirely different patterns across our conditions.

Second, although the effect of group belonging seems to apply to other major categorizations as well, as discussed earlier, we cannot generalize our findings to other types of disparaging humor. Both content of stereotypes, as well as attitude valence, and strength vary too much between other common categorizations (e.g. race, gender) to say that similar patterns would be found for racist or sexist jokes when the conditions represent either of the two.

This falls well in line with another issue in generalizing our findings. We now know roughly which patterns can emerge in the United States and maybe in Western Europe, but have no idea whether this applies to other cultures or even how well this applies to these 'western' cultures at all. Prior research has pointed to important cross-cultural differences in the evaluations of humor in general (Tosun et al., 2018). The types of convenience samples we selected further constrain the generalizability of our findings. In particular, the pilot was conducted using a sample of psychology students from many different countries living mostly as expats in the Netherlands. This is arguably a very peculiar sample in a very unique social bubble. In contrast, the last two studies were conducted in the US using an online recruiting platform. Although both samples are Western, there are important differences in these two cultures (e.g. Gelfand et al., 2011), along with the obvious difference in demographics that come with the use of a student sample. We urge the reader to take these differences into account when comparing results from study one to those of study two and three. Moreover, both types of participants on average have already gathered experience with psychological studies and might be better at grasping the underlying mechanisms from demand characteristics. Additionally, our samples are much younger than the general US population, since only a few people of age frequent the platform. In this regard, it is important to note that the joke might be considered dated and age is highly likely to be influential in the appreciation of this and other jokes. Other structural differences between the samples and the population might also be present.

Fourth, as previously mentioned when discussing effect sizes, we ask participants to take a unique perspective on

the issue by making them observe a fictional vignette as a third person reacting to the interaction in a dyad. This indirect other-perception allowed us to study the issue ethically and manipulate every necessary variable in the dyad, but it also does not quite capture the breadth of the impact on the individuals involved. Increased by our use of relatively vague text vignettes, this limit of connection to the characters is unlikely to occur in a real life scenario. Nevertheless, it could still help to explain how people react to text communication of disparaging jokes on social media.

Fifth, we only looked at two relational models of the four, which are theorized (Fiske, 1992), which limits the scope of interactions our findings apply to. The chosen two were selected since they posed the starkest contrast and were they easiest to successfully manipulate, but manipulations for communal sharing and market prizing could have also provided valuable insights. Furthermore, Fiske proposes that an interaction/relationships is often understood using multiple relational models. This means that the reality is never as clear as our manipulations make it seem.

Sixth, in Study 2, we mentioned that the individuals involved in the dyad are friends, which might give the impression that they have equal roles, thereby mitigating the effect of the relational models description. DeLuca (2013) has provided evidence that aggressive humor is perceived as more disrespectful when used in a non-friendship context. Applying this finding to disparagement humor might mean that the context we studied leads to less perceived offensiveness and other negative outcomes in general.

Lastly, few lesser limitations include the following: Firstly, we only used dyads of opposite sexual orientation. Additionally, sexual orientation is often not evident in real life scenarios. Furthermore, we did not probe the participants attitude for the minority in question, wherefore we could not control for the effect of prejudiced views. Similarly, we failed to assess the impact that social desirability might have had on the truthfulness of the participant's responses. Moreover, we only assessed the social emotions of shame and guilt but others could have an important role to play. Lastly, we relied on reported sexual orientation when filtering for heterosexual participants on the recruitment platform. Prior research has called this measure of sexuality into question since behavior and self-reported identity might differ (Gonsiorek et al., 1995). Lastly, the dimensional nature of sexual orientation was not truly captured in our methods which might confound the results.

Future research

As mentioned earlier, the observed effects may be heavily influenced by cultural phenomenon (e.g. stereotypes of the disparaged minority or source of the joke) it could be valuable to probe our findings in other cultures. In particular, cultures in which minorities might be less or more marginalized and authority plays a smaller or bigger role. Similarly, belief systems dictating particular moral codes such as religion might have a noteworthy impact on our findings. Furthermore, it may be interesting to look at the long-term influences of repeated exposure to disparaging jokes. More specifically one could examine individuals who frequently use socially self-deprecating humor, based on their identity.

Moreover, we precluded many antecedents as mentioned in the review of relevant literature from examination in the pursuit of predictive parsimony. That entails that any interactions with demographics of participants were not tested. Naturally, these demographics are important to consider given the context dependence of disparagement humor and future research should evaluate the importance of demographics and other variables through large scale correlational studies.

In terms of interpersonal and group dynamics, several adaptations to our design can be considered for future studies. First and foremost, there may be an important difference between a friend making a disparaging joke compared to a stranger making the joke, which is worth investigating. The proposed difference here is similar to relational models (Fiske, 1992) in that the two may be perceived have different social status in relation to oneself. Furthermore, it could be interesting to look at the impact of jokes disparaging a majority group. Similarly, we could ask the question if the patterns we discovered extent to a member of one minority making a joke about a member of another minority.

Conclusion

To sum it up, across three studies, we found a significant effect of sexual orientation of the source of a homophobic joke. More precisely the joke was perceived to be less offensive, more funny, with less negative intentions, more acceptable, less empowering, more morally right, inducing less shame, guilt and aggressive intergroup cognitions as well as producing less negative affect in the participants, if the source of the joke is gay. Furthermore, the joke was perceived as most offensive, resulted in least negative affect, and was most morally right as well as acceptable if the source of the joke was in a high status position relative to the dyadic other. No conclusive evidence was found for whether a low authority or equal authority produced the reverse effects. Regardless, this suggests an effect of interpersonal dynamics in the appreciation of intergroup disparaging humor and therefore warrants further examination across levels of analysis.

Appendix

- 1. What do gay horses eat? ... Hay
- 2. How Many Gays does it take to screw in a lightbulb? Two. One to screw it in and another to stand around and say "Faboulous"
- 3. Why did they make glow in the dark condoms? ... So gay guys can play Star Wars.
- 4. What do you call a homosexual dentist?... A tooth fairy.
- 5. We seem to be getting overrun these days with gay men. For a group of people who can't multiply, where the fuck are they all coming from?
- 6. I was minding my own business in the pub last night when a man came over to me and said, 'You look like a poof.' I was so outraged I immediately challenged him to a dance off.
- How many gays does it take to change a lightbulb? "oOoOoOohhh a puzzle!"

Supplementary Information The online version contains supplementary material available at https://doi.org/10.1007/s12144-022-03712-9.

Data availability Dataset for all studies are available at https://doi.org/ 10.17605/OSF.IO/XYCN5

Software availability G*Power (Faul et al., 2009), R (R Core Team, 2020), Jamovi (the Jamovi Project, 2020), WRS2 package (Mair & Wilcox, 2020). All software is open source and available online.

Declarations

Ethics approval This study received ethics approval from the corresponding author's place of work. PSY-1920-S-0036 and PSY-1920-S-0081.

Conflicts of interest/Competing interests There are no conflicting interests/competing interests to be acknowledged

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