



Article

# “All Is Fair in . . . Meme!” How Heterosexual Users Perceive and React to Memes, News, and Posts Discriminating against Sexual Minorities

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**Abstract:** Digital discrimination against sexual minorities is becoming prevalent. It increasingly spreads through discriminatory content that mixes text and images (e.g., memes), thus, making online discrimination more difficult to detect. The present survey study focused on digital content that is discriminatory towards sexual minorities, aiming to analyze whether a sample of heterosexual social network users (65.2% female;  $M_{age} = 27.13$ ) perceived different forms of discriminatory content (i.e., memes, news, and posts) as equally offensive and to what extent such different forms elicited the same online behavioral reactions. Furthermore, we considered how individuals' online network heterogeneity could influence their perception of digital discrimination. Results showed that individuals perceived memes as less offensive when compared to both news and posts. Accordingly, we also found that individuals took less time to react to posts when compared to the other forms of content. In addition, those who declared that they had a heterogeneous online network perceived memes as more offensive than those who did not. Finally, regarding reacting behaviors, overall results showed that memes elicited few proactive behaviors and more acquiescent and ignoring behaviors than news and posts. The theoretical and practical implications of these results are discussed.

**Keywords:** online discrimination; meme; hate speech; hateful news; online intergroup contact



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## 1. Introduction

Given the increasing pervasiveness of the Internet in people's daily lives, how individuals communicate and relate to each other has significantly changed. Several studies underlined that digital environments, and especially social networks, allow individuals to create and maintain relationships (e.g., [Antheunis et al. 2012](#); [Imperato and Mancini 2019](#)), to find others with similar interests (e.g., [Baym and Ledbetter 2011](#)), and to increase social capital (e.g., [Steinfeld et al. 2013](#)). However, due to their offensive and discriminatory scope, digital environments are also associated with potentially risky communication forms. Online discrimination is receiving increasing attention from scientific literature and social and political agendas (e.g., [Council of Europe 2022](#); [Tynes et al. 2008](#)). Indeed, online discrimination negatively impacts individuals' physical and psychological health ([Weber et al. 2020](#)), and some forms of implicit discriminatory communication in online environments mean the phenomenon is often unperceived ([Pagano et al. 2023](#)). The present study specifically focused on online content that is discriminatory towards sexual minorities, aiming to analyze whether memes, news, and posts are perceived to be equally discriminatory and whether and to what extent such different forms of digital content elicit the same online behavioral reactions. Furthermore, given that previous studies demonstrated that the more individuals interact with others who are different from themselves, the more sensitive they are to recognizing online discrimination (e.g., [Mancini and Imperato 2020](#)), we also considered the differences in individuals' online network heterogeneity.

## 2. Online Discrimination

Discrimination can be defined as a “differential treatment of the members of different ethnic, religious, national, or other groups”, therefore, involving negative treatment towards targeted group members (APA 2022). However, some scholars underlined that discrimination occurring in online environments has unique characteristics that distinguish it from offline discrimination (e.g., Kahn et al. 2013; Schwab et al. 2019). For instance, Kahn et al. (2013) pointed out the permanent nature of online discriminatory information, underlining that such permanency of online materials makes it impossible to delete discriminatory material, thus, leaving an indelible mark on both discrimination perpetrators and victims and allowing digital content to easily go viral. Therefore, scholars started to delve into discrimination occurring in online environments, exploring both individuals’ evaluations and their behavioral reactions to online discriminatory content. For instance, Tynes and Markoe (2010) found that the reaction to racist online contents depends on individuals’ racial group, showing that the majority group is more likely to evaluate discriminatory content as not bothersome and to laugh about it. Furthermore, in a sample of ethnic majority users, Imperato et al. (2021a) found that the more individuals are online and exposed to mediated discrimination, the more likely they are to carry out anti-racist behaviors. What can be noticed is that the literature mainly focused on individuals’ evaluation and reaction to online discrimination conveyed via texts (e.g., hate speech). Increasingly, however, forms of discriminatory content that mixes text and images (i.e., memes, news) are being used in online environments, thus, making discrimination more difficult to detect and, consequently, to react to. The present study specifically focused on different forms of content that are discriminatory towards sexual minorities, namely, posts, memes, and news.

### *Memes and News as Online Content Conveying Discrimination*

While the literature on computer-mediated communication mainly focused on the comparison of text-based forms of communication with face-to-face interactions or on the comparison of different communication modalities such as audio, visual, or instant messaging (e.g., Sprecher 2014), individuals are daily exposed to and spread multimodal online content, with different degrees of ambiguity. As a consequence, today, online discrimination can be conveyed by combining different communication channels—i.e., text and images—as occurs in memes or in the news.

Memes are online images on which text is superimposed, allowing users to interpret the iconic image. With the rise of social networks, such a way of communicating has become widespread insofar as the recent report made by GWI (2022) pointed out that “Memes are almost a kind of grammar”. The key trait of memes is irony, a feature that allows individuals to convey discriminatory messages in a jokey way (Way 2019), so they can become an implicit way to convey discrimination online. Furthermore, memes can represent a great threat to harmonious online relationships, given their viral nature and the ease with which individuals can re-post and share them (Lee et al. 2021). In addition, some studies analyzed whether and how memes could be considered a vehicle of online discrimination. For instance, analyzing both majorities’ and minorities’ perception of online racial memes, Williams et al. (2016) found that racial memes are perceived as more offensive than non-racial memes and that people who have experienced offline discrimination tend to perceive such content as more offensive. In line with such results, Pagano et al. (2023) found that discriminatory memes towards sexual minorities are perceived as more offensive compared to neutral ones and that individuals who perceive memes as offensive are more likely to perform online proactive behaviors aimed at opposing the spread of online discrimination. Furthermore, Jones (2019) found that the targeted social group represented in memes affects the perception of memes’ offensiveness. Specifically, she found that people perceive memes as more offensive and less funny when the targeted social group is an historically oppressed group. Taken together, such results suggest that memes can be considered a vehicle of online discrimination. However, little is known about individuals’ reactions to

such content and about comparisons with other forms of online discrimination such as news and textual posts.

Some authors (e.g., [Livingstone et al. 2014](#)) focused on vicarious forms of online discrimination, such as those that are conveyed through online news. For instance, analyzing the effects of being exposed to news reporting discriminatory events, [Tynes et al. \(2019\)](#) found that exposure to discriminatory news directed to members of one's own social group affects adolescents' health, being positively related to post-traumatic stress disorder symptoms and depressive symptoms. Accordingly, [Volpe et al. \(2021\)](#) confirmed the negative effects of being exposed to discriminatory and traumatic online news on individuals' health, also finding that those who have a strong ability to read and evaluate media and technology content critically are less affected by the negative consequences of online news. Going beyond the effects of exposure to discriminatory online news, no scholar has analyzed how individuals evaluate and react to such contents.

Lastly, in terms of more direct forms of online discrimination, the literature has mainly focused on hate speech and its effects. For instance, [Boeckmann and Liew \(2002\)](#) found that individuals exposed to online racist hate speech react with extreme emotional responses and low levels of collective self-esteem, highlighting the negative effects of hate speech on individuals' well-being. Accordingly, [Saha et al. \(2019\)](#) found that exposure to hate speech leads to great stress expression, also finding that the negative effects of hate speech are stronger for those who show lower psychological endurance. Going beyond the psychological effects of textual hate speech on individuals' well-being, still little is known about people's evaluation of online hateful textual contents and, above all, about people's behavioral reactions to such contents.

### 3. The Role of Online Network Heterogeneity

Scholars studying online discrimination phenomena focused on the protective role of online intergroup contact. Indeed, starting from [Allport's \(1954\)](#) contact theory, some authors argued that interacting with outgroup members also has positive effects on intergroup relations when it occurs in online contexts (e.g., [Amichai-Hamburger and Mckenna 2006](#)), and this positive effect of online intergroup contact on prejudice reduction found support in a recent meta-analysis in the field (i.e., [Imperato et al. 2021a](#)). Therefore, while there is substantial agreement on the efficacy of online intergroup contact in reducing prejudice, the effects of intergroup contact on online discrimination are still partially uncovered. For instance, [Mancini and Imperato \(2020\)](#) found that the quantity and the quality of intergroup contact on social networks are positively related to individuals' ability to detect online discrimination, arguing that online intergroup contact makes people more sensitive to online discrimination. Nonetheless, no authors analyzed the role of different forms of online discriminatory content when considering the differences between individuals who interact online with outgroup members and those who do not.

### 4. The Present Study

Discrimination phenomena are receiving a lot of attention. However, still little is known about other forms of online discriminatory content, namely, memes and news, or about individuals' behavioral reactions to such content. Therefore, starting from the reviewed literature, the present study aimed:

RQ1: to understand whether individuals perceive content that conveys discrimination in an implicit (i.e., meme), vicarious (i.e., news), or explicit (i.e., post) form as equally offensive;

RQ2: to understand whether and to what extent individuals react to implicit (i.e., meme), vicarious (i.e., news), and explicit (i.e., post) discriminatory content with the same behavioral intentions, considering proactive, acquiescent, and ignoring behaviors.

Furthermore, given that individuals who interact online with people who are different from themselves (i.e., have high online network heterogeneity) are more sensitive to recognizing online discrimination ([Imperato et al. 2021b](#); [Mancini and Imperato 2020](#)), we hypothesized that:

**H1:** *individuals with high online network heterogeneity perceive content that conveys discrimination in an implicit (i.e., meme), vicarious (i.e., news), or explicit (i.e., post) form as more offensive compared with individuals with low online network heterogeneity;*

**H2:** *individuals with high online network heterogeneity react to implicit (i.e., meme), vicarious (i.e., news), and explicit (i.e., post) discriminatory contents with more proactive and less acquiescent and ignoring behaviors compared with individuals with low online network heterogeneity.*

Lastly, starting from the assumption that memes are a more ambiguous and multi-modal form of communication (e.g., [Lee et al. 2021](#)) when compared to both news and posts, we hypothesized that:

**H3:** *individuals take longer to rate offensiveness and react to memes than news and posts.*

## 5. Methods

### *Design and Procedure*

The present study was based on cross-sectional data collected online. Ten Master's degree psychology students collected data during a methodological course. The students did not receive credits for their participation. We instructed students to post the anonymous link to the survey on the main social networks, namely, WhatsApp, Instagram, and Facebook, to recall the option to participate in the study 3 days from the first publication, and to specify the methods used for data collection (i.e., people or groups involved, channel used) and any comments received by participants. Furthermore, in order to reach as many people as possible through snowball sampling, the students asked participants to share the survey with their friends and contact list. To be eligible to participate in the study, participants had to be older than 18 years and to regularly use social networks.

The entire procedure was administered on the Qualtrics platform. In line with ethical standards, the first page of the survey contained the informant consent, with indications about the participation's voluntariness, the study's purpose, data processing, and anonymity. In order to participate, individuals had to explicitly express their consent by clicking on "yes"; otherwise, they were redirected to the end of the survey.

After some sociodemographic questions, participants had to evaluate three different stimuli, namely, one discriminatory meme, one discriminatory piece of news, and one discriminatory post. Therefore, we first selected stimuli by adapting them from literature on online discriminatory content or searching for them online. Specifically, in selecting discriminatory memes, we used the same target stimuli used in [Pagano et al. \(2023\)](#). In selecting discriminatory news, we searched for news reporting discriminatory events from online national newspapers. Then, three independent judges evaluated the discriminatory content, selecting three of the pieces of news found. Lastly, in selecting discriminatory posts, we adapted three online comments which were harmful towards sexual minorities from [Wilhelm and Joeckel \(2019\)](#). Furthermore, in order to reduce sequence effect, we randomly presented one of the selected memes, one of the selected pieces of news, and one of the selected posts; thus, each participant was shown three different stimuli in total.

## 6. Participants

A sample of 551 individuals opened the survey. However, 236 participants were excluded from data analysis given that they filled out less than 75% of the entire questionnaire and/or they took less than 5 min to complete it. From the remaining 315 participants, we further excluded one participant who declared to not use social networks and 44 who declared to be bisexuals or homosexuals. Therefore, the total sample consisted of 270 heterosexual users, the majority of whom were female ( $n = 176$ , 65.2%), aged from 18 to 63 years old ( $M = 27.13$ ,  $SD = 7.10$ ). The majority of participants declared that they used mainly Instagram ( $n = 215$ , 79.6%), followed by Facebook ( $n = 29$ , 10.7%), YouTube ( $n = 13$ , 4.8%), TikTok ( $n = 11$ , 4.1%), Twitter ( $n = 1$ , 0.4%), and WhatsApp ( $n = 1$ , 0.3%). As far as employment, most of participants declared to be workers ( $n = 135$ , 50.0%) or students ( $n = 111$ , 41.1%), while 14 (5.2%) participants declared to be unemployed ( $n$  missing = 10,

3.7%). Lastly, 144 (53.3%) participants were university graduates, 107 (39.6%) were high school graduates, and 10 (3.7%) were not graduates.

## 7. Measures

Following questions about sociodemographic information (i.e., gender, age, employment status), we asked participants questions about their online social network use and heterogeneity. Then, we randomly showed the three different stimuli, namely, one discriminatory meme, one discriminatory piece of news, and one discriminatory post, asking participants to evaluate their offensiveness and to answer a series of questions related to their behavioral intentions. The three memes were aimed at discriminating against a lesbian woman and two gay men; each of the three pieces of news was discriminatory against gay couples; lastly, the three posts were discriminatory towards both gay and lesbians. In addition, we also automatically measured the latency times of the evaluation and reaction to each form of stimulus.

**Social network heterogeneity:** We asked participants “*How many of your friends on [most used social network] do you think have a different sexual orientation than yours?*” Participants had to answer on a five-point scale (1 = none, 5 = very many). Then, we computed a dummy variable, where 0 indicated low heterogeneity (those who reported having no or few online friends with a sexual orientation other than their own) and 1 indicated high heterogeneity (those who reported having enough, many, or very many online friends with a sexual orientation other than their own).

**Offensiveness:** For each of the three presented stimuli, we asked participants to rate the extent to which it was respectful vs. offensive on a 11-point bipolar scale.

**Online behavioral intentions:** We used an adapted version of Proactive and Acquiescent Social Network Behaviors (Pagano et al. 2023). The scale was originally composed of six items, three of them measuring *proactive behaviors* (i.e., reporting, blocking, and writing a negative comment in reaction to the discriminatory content) and three of them measuring *acquiescent behaviors* (i.e., sharing, liking, and writing a positive comment in reaction to the discriminatory content). We also included three further items assessing *ignoring behaviors* (i.e., scrolling down without paying attention, ignoring, and pretending not to see). Therefore, the scale was composed of nine items measured on a five-point Likert-type scale (1 = definitely not, 5 = definitely yes) and measured to what extent participants would perform each behavior in reaction to each stimulus presented. Then, we computed nine composite scores by the average of the participants’ answers, or rather proactive behaviors in reaction to each type of stimulus, acquiescent behaviors in reaction to each type of stimulus, and ignoring behaviors in reaction to each type of stimulus. Cronbach’s alphas are reported in the Table 1.

**Latency times:** We automatically measured individuals’ latency times in answering in relation to stimuli evaluation and behavioral reactions. The latency time variable is expressed in seconds.

**Table 1.** Means, standard deviations, and Pearson's correlations among considered variables.

	M	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
1. Offensiveness of Meme (1–11)	7.41	3.11	-													
2. Offensiveness of News (1–11)	10.18	2.26	0.12	-												
3. Offensiveness of Post (1–11)	10.53	1.72	0.11	0.25 ***	-											
4. Proactive behaviors Memes (1–5)	2.00	0.94	0.59 ***	0.13 *	0.10	$\alpha = 0.84$										
5. Proactive behaviors News (1–5)	2.63	1.12	0.21 ***	0.28 ***	0.01	0.51 ***	$\alpha = 0.68$									
6. Proactive behaviors Posts (1–5)	3.31	1.08	0.22 ***	0.08	0.35 ***	0.48 ***	0.45 ***	$\alpha = 0.74$								
7. Acquiescent behaviors Memes (1–5)	1.59	0.76	-0.63 ***	-0.20 **	-0.19 **	-0.37 ***	-0.11	-0.11	$\alpha = 0.75$							
8. Acquiescent behaviors News (1–5)	1.54	0.67	-0.11	-0.22 ***	-0.08	0.01	-0.13 *	0.12	0.26 ***	$\alpha = 0.56$						
9. Acquiescent behaviors Posts (1–5)	1.20	0.56	-0.04	-0.09	-0.43 ***	0.03	0.06	-0.30 ***	0.20 **	0.30 ***	$\alpha = 0.76$					
10. Ignoring behaviors Memes (1–5)	2.70	0.97	-0.16 *	0.03	-0.00	-0.21 ***	-0.15 *	-0.13 *	-0.14 *	-0.02	-0.04	$\alpha = 0.81$				
11. Ignoring behaviors News (1–5)	2.04	0.92	-0.26 ***	-0.12 *	-0.10	-0.30 ***	-0.33 ***	-0.41 ***	0.16 *	-0.14 *	-0.08	0.43 ***	$\alpha = 0.88$			
12. Ignoring behaviors Posts (1–5)	2.02	0.96	-0.25 ***	-0.09	-0.18 **	-0.27 ***	-0.27 ***	-0.46 ***	0.18 **	-0.06	-0.03	0.39 ***	0.70 ***	$\alpha = 0.87$		
13. Latency times Memes	72.35	40.08	-0.05	0.03	-0.04	-0.03	0.02	-0.06	-0.02	-0.11	0.01	0.12 *	-0.01	0.06	-	
14. Latency times News	75.37	44.88	-0.05	-0.11	-0.05	-0.10	-0.10	0.05	0.02	0.06	0.05	0.04	0.00	-0.03	0.18 **	-
15. Latency times Posts	65.77	33.34	0.08	0.04	-0.11	0.11	0.09	-0.03	0.00	-0.02	0.19 **	0.01	0.04	0.10	0.33 ***	0.28 ***

Note: Variable ranges are shown in brackets immediately after the variable name. Latency times are expressed in seconds. Cronbach's alphas of considered measures are reported in the table's diagonal. \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.00$ .



## 8. Results

### *Descriptive Statistics*

Table 1 shows means, standard deviations, and Pearson's correlations among the variables considered.

Descriptive statistics showed that offensiveness positively related to proactive behaviors and negatively related to both acquiescent and ignoring behaviors, while no relationships were found with latency times. Proactive behaviors negatively related to acquiescent behaviors, but only when considering the same form of stimulus (e.g., proactive behaviors in reaction to memes negatively related to acquiescent behaviors in reaction to memes, proactive behaviors in reaction to news negatively related to acquiescent behaviors in reaction to news, and proactive behaviors in reaction to posts negatively related to acquiescent behaviors in reaction to posts). Furthermore, they negatively related to ignoring behaviors, while no relationships were found with latency times. Acquiescent behaviors in reaction to both memes and news were negatively related to ignoring behaviors in reaction to the same stimuli, whereas acquiescent behaviors in reaction to memes positively related to ignoring behaviors in reaction to the other stimuli (i.e., news and posts). In addition, acquiescent behaviors in reaction to posts positively related to posts' latency time.

### 9. Testing the Hypothesis

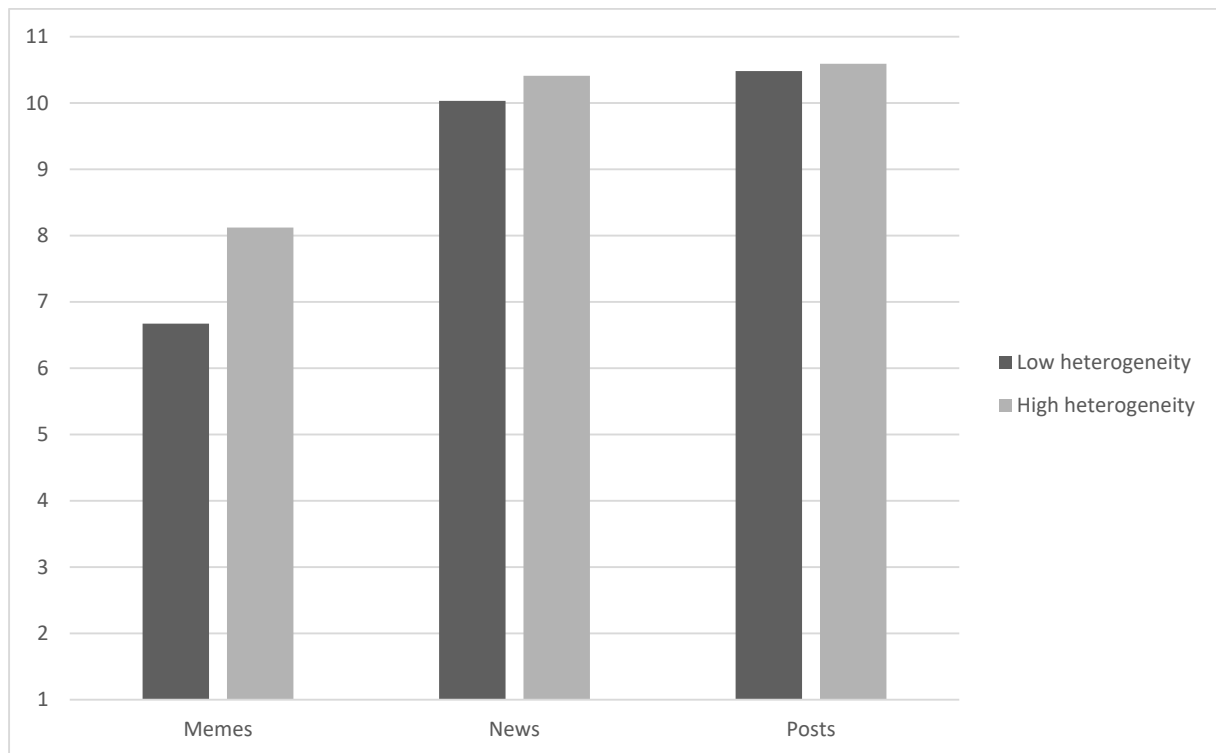
In order to evaluate the sample size, we computed a power analysis using G\*Power v3.1. Results showed that we needed 162 participants with two groups and three measurements ( $\eta_p^2 = 0.01$ , power = 80, alpha = 0.05).

Then, in order to reach our aims, we ran three repeated measures ANOVAs. Specifically, to address our first aim (RQ1) and test H1, we ran a repeated measures ANOVA including offensiveness of memes, news, and posts as within-subjects variables and online network heterogeneity as a between-subjects variable. Then, to achieve our second aim (RQ2) and test H2, we ran a repeated measures ANOVA including proactive, acquiescent, and ignoring behaviors in reaction to memes, news, and posts, and also including online network heterogeneity as a variable between subjects. Lastly, to test our H3, we ran a repeated measures ANOVA including latency time referring to memes, news, and posts.

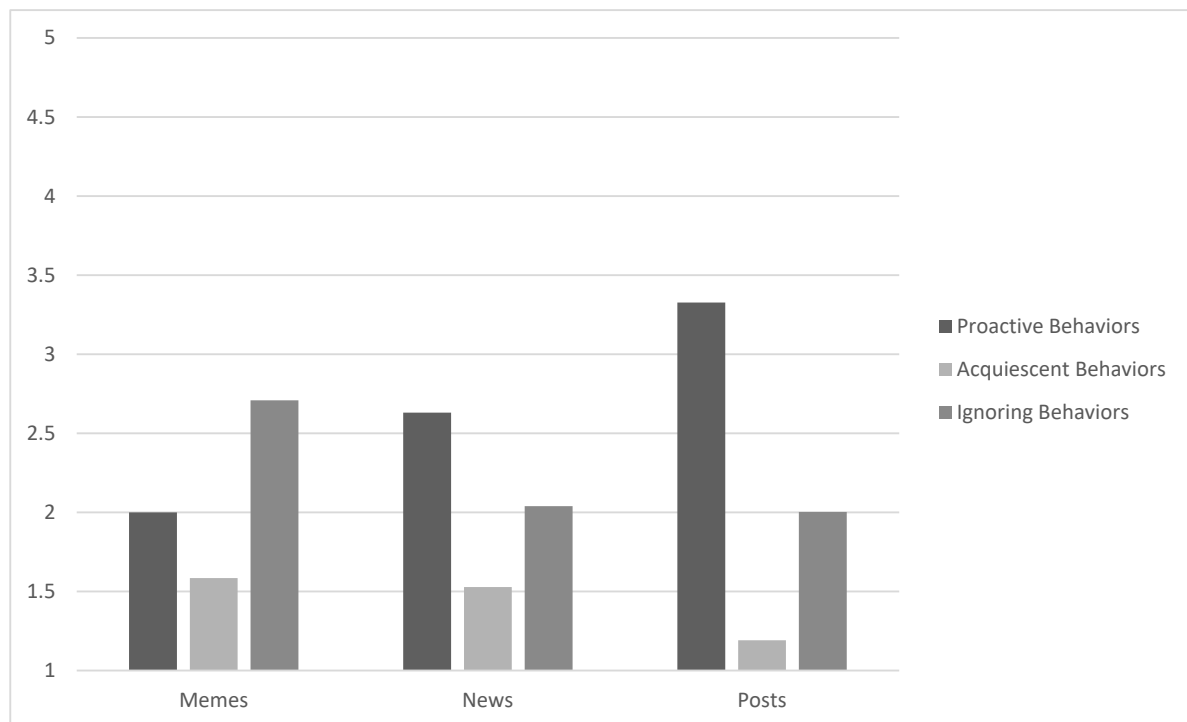
As far as the first model was concerned, Mauchly's test indicated a violation of sphericity ( $\chi^2(2) = 46.95$ ,  $p < 0.001$ ); therefore, we used Greenhouse–Geisser to correct the within-subjects test. Results showed significant differences between the perceived offensiveness of memes, news, and posts ( $F(1.717, 449.927) = 133.512$ ,  $p < 0.001$ ,  $\eta_p^2 = 0.34$ ) and also when considering the interaction with online network heterogeneity ( $F(1.717, 449.927) = 3.631$ ,  $p = 0.03$ ,  $\eta_p^2 = 0.01$ ). Specifically, pairwise comparison using Bonferroni correction showed that memes ( $M = 7.41$ ,  $SD = 3.11$ ) were perceived to be significantly less offensive than both news ( $M = 10.18$ ,  $SD = 2.27$ ) and posts ( $M = 10.53$ ,  $SD = 1.73$ ). In addition, those who declared to have an heterogeneous online network ( $M = 8.12$ ,  $SD = 3.05$ ) perceived memes to be more offensive when compared to those who did not have an heterogeneous online network ( $M = 6.96$ ,  $SD = 3.07$ ;  $t(266) = -3.17$ ,  $p < 0.001$ ,  $d = -0.40$ ), while no differences emerged for both news and posts (see Figure 1).

As far as our second model was concerned, multivariate results showed significant differences based on both stimulus (memes, news, and posts) and behavior considered ( $F(6, 252) = 75.052$ ,  $p < 0.001$ ,  $\eta_p^2 = 0.64$ ). However, no multivariate significant interactions were found with online network heterogeneity. Specifically, as far as proactive behaviors ( $F(2, 514) = 189.753$ ,  $p < 0.001$ ,  $\eta_p^2 = 0.43$ ) were concerned, pairwise comparison using Bonferroni correction showed that memes ( $M = 2.00$ ,  $SD = 0.95$ ) elicited significantly fewer proactive behaviors compared to both news ( $M = 2.64$ ,  $SD = 1.11$ ) and posts ( $M = 3.32$ ,  $SD = 1.07$ ) and that news elicited significantly fewer proactive behaviors when compared to posts. Furthermore, for acquiescent behaviors ( $F(1.951, 501.504) = 36.131$ ,  $p < 0.001$ ,  $\eta_p^2 = 0.12$ ), results showed that posts ( $M = 1.19$ ,  $SD = 0.52$ ) elicited significantly fewer acquiescent behaviors compared to meme ( $M = 1.58$ ,  $SD = 0.74$ ) and news ( $M = 1.53$ ,  $SD = 0.65$ ). Lastly, when it came to ignoring behaviors ( $F(1.705, 438.132) = 89.152$ ,  $p < 0.001$ ,

$\eta_p^2 = 0.26$ ), we found that memes ( $M = 2.71$ ,  $SD = 0.97$ ) elicited significantly more ignoring behaviors compared to news ( $M = 2.04$ ,  $SD = 0.92$ ) and posts ( $M = 2.00$ ,  $SD = 0.94$ ). Figure 2 shows the differences between the three types of stimuli and the three types of behaviors.



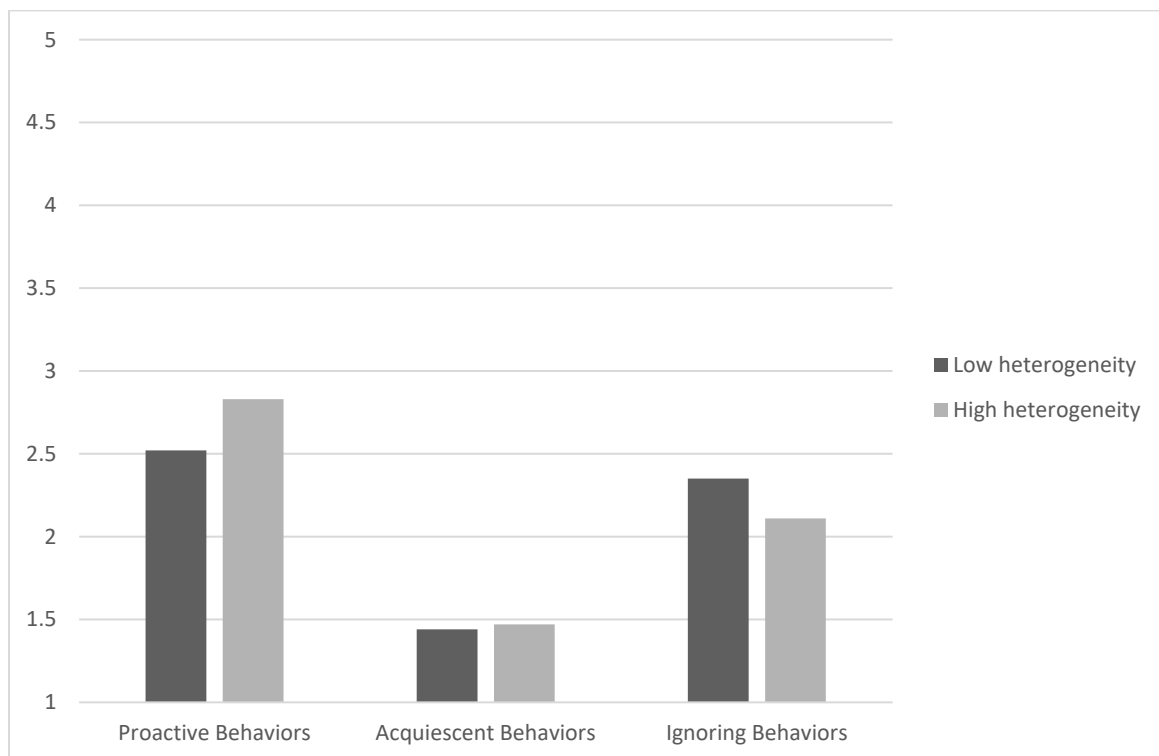
**Figure 1.** Differences between perceived offensiveness of memes, news, and posts by individuals with high vs. low heterogenous online network.



**Figure 2.** Differences between memes, news, and posts in terms of proactive, acquiescent, and ignoring behaviors.



Furthermore, regardless of the discriminatory stimulus considered, we found that those who had high online network heterogeneity performed significantly more prosocial ( $M = 2.83$ ,  $SD = 0.84$ ;  $t(268) = -3.053$ ,  $p = 0.002$ ,  $d = -0.38$ ) and fewer ignoring ( $M = 2.11$ ,  $SD = 0.75$ ;  $t(268) = 2.496$ ,  $p = 0.013$ ,  $d = 0.31$ ) behaviors when compared to those who had low online network heterogeneity (prosocial behaviors:  $M = 2.52$ ,  $SD = 0.83$ ; ignoring behaviors:  $M = 2.35$ ,  $SD = 0.81$ ). Figure 3 shows the differences between those with high vs. low online network heterogeneity with regard to the three behaviors considered.



**Figure 3.** Differences between those with high vs. low online network heterogeneity in terms of proactive, acquiescent, and ignoring behaviors.

As far as the last model on latency times was concerned, Mauchly's test indicated a violation of sphericity ( $\chi^2(2) = 22.02$ ,  $p < 0.001$ ); therefore, we used Greenhouse–Geisser to correct the within-subjects test. Results showed significant differences between latency times following memes, news, and posts ( $F(1.851, 486.761) = 5.361$ ,  $p = 0.006$ ,  $\eta_p^2 = 0.02$ ). Specifically, we found that it took individuals significantly less time to react to posts ( $M = 65.75$ ,  $SD = 33.60$ ) compared to both memes ( $M = 72.39$ ,  $SD = 40.26$ ) and news ( $M = 75.37$ ,  $SD = 45.02$ ).

## 10. Discussion

Online discrimination is receiving growing attention, to such an extent that initiatives are being promoted with the specific aim of countering online hate speech and discrimination phenomena (e.g., 'Code of Conduct on countering illegal hate speech online'). Such attention is specifically growing towards sexual orientation minorities, given that the most reported area of online discrimination was found to be sexual orientation (European Commission 2016). However, while scholars mainly focused on textual forms of online discrimination, content that individuals use to convey messages in online environments is increasingly varied, and only a few authors analyzed which effects such different content has on individuals. Therefore, it is extremely urgent to understand whether and how individuals perceive such different forms of discriminatory online content and whether and how they reacted to it. The present study specifically focused on

two further forms of content other than the textual one: memes and news. Furthermore, given the differences found between individuals who interact online with people different from themselves (i.e., had high online network heterogeneity) and individuals who do not in terms of being sensitive to online discrimination (e.g., [Mancini and Imperato 2020](#)), we also focused on differences between the two groups in evaluating and reacting to different discriminatory content.

Partially in line with previous seminal studies (e.g., [Pagano and Imperato 2021](#)), our results showed that individuals perceive memes to be less offensive when compared to both news and posts. In other words, when discrimination is conveyed through ambiguous forms of content, individuals are less likely to detect the discriminatory scope. As [Way \(2019\)](#) pointed out, memes are a specific form of content that allow individuals to share messages “hidden” by humor. Therefore, it is possible to argue that memes’ humorous and jokey nature prevents people from grasping the discriminatory message they convey. Interestingly, we also found differences in the evaluation of memes’ discriminatory nature between individuals with high online network heterogeneity and those with low online network heterogeneity. In line with previous studies (e.g., [Imperato et al. 2021b](#); [Mancini and Imperato 2020](#)), we found that individuals who interact online with people different from themselves in terms of sexual orientation are more sensitive to detecting online discrimination. Moreover, we found this difference to be significant only when considering the evaluation of memes, not news and posts. Therefore, our results suggest that online network heterogeneity is particularly relevant when individuals have to evaluate ambiguous discriminatory content, favoring the recognition of the discriminatory scope among people with a heterogeneous network of online friends.

Regarding reacting behaviors, overall results showed that memes elicit few proactive behaviors and more acquiescent and ignoring behaviors. Therefore, coherently with the abovementioned evaluation, we can argue that individuals do not react to discriminatory memes by containing the spread of discriminatory content probably because they do not recognize them as discriminatory. On the other hand, textual posts are the form of content that elicits the most proactive behaviors and the fewest acquiescent behaviors. Thus, textual forms of discriminatory contents cause people to react by condemning discrimination by acting actively. Accordingly, we also found that individuals take less time to react to posts when compared to the other forms of contents. Therefore, a coherent picture seems to emerge whereby, on the one hand, people evaluate memes as only a little discriminatory and, consequently, react by sharing or ignoring them. On the other hand, people evaluate news as moderately discriminatory, reacting with medium condemning behaviors and with medium acquiescent and ignoring behaviors. Finally, people rate posts as highly discriminatory, and this rating is more immediate than for the other two content types, reacting with high levels of condemnation behaviors and low levels of acquiescent and ignoring behaviors.

The present study tried to take a step forward in knowledge of the online discrimination phenomenon, analyzing whether and how different content is perceived as equally discriminatory and whether and how people react to such content. Nonetheless, it was not without limitations. Firstly, due to its exploratory nature, it must be noted that further studies are needed to experimentally test differences between different forms of online discriminatory content. Furthermore, our sample only analyzed heterosexuals’ evaluations and reactions. Further studies could analyze evaluation of different discriminatory content by both majority and minority members to understand whether minorities (i.e., LGBTQ+ individuals) perceive contents to be more discriminatory than majorities. Lastly, further studies also considering stimuli other than those we used would allow generalization of the differences we found.

Despite its limitations, the present exploratory study pointed out results that could have important research and practical implications. For instance, both researchers and practitioners should also consider such different forms of discriminatory content in detecting so-called digital discrimination, or rather the automatic detection of offensive online

content. Furthermore, when it comes to online discrimination, researchers and practitioners should be aware that online content implicitly conveying discrimination (i.e., memes) is not recognized as discriminatory by individuals who do not belong to the targeted social group. Therefore, such individuals could contribute to the dissemination of content affecting minorities without being aware of it. Greater education in recognizing this content as discriminatory is necessary, for instance, through greater online network heterogeneity, to make online environments safe for sexual minorities. Indeed, it is extremely urgent to understand how discrimination phenomena can be contained, especially given the negative effects that online discrimination has on individuals' well-being.

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