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How do you self-categorize?

## Gender and sexual orientation self-categorization in homosexual/heterosexual men

and women

#### Abstract

Group status influences individuals' identity. Low-status group members identify with their in-group more strongly than high-status group members. However, previous research has mostly analyzed explicit identification with a single in-group.

We examined effects of both double group membership, namely gender and sexual orientation, which are two intersecting categories defining high/low-status groups, and contextual identity prime on both implicit self-categorization and explicit identification. Heterosexual and homosexual men and women (N = 296) completed measures of implicit self-categorization and explicit identification with gender and sexual orientation after being primed with gender or sexual orientation. Implicit selfcategorization was stronger for low-status than high-status groups: implicit gender selfcategorization was higher for women than men, and implicit sexual orientation selfcategorization was stronger for homosexual than heterosexual participants. Lesbian participants showed the strongest implicit sexual orientation self-categorization compared to the other three groups. Moreover, homosexual men and women and heterosexual women showed stronger implicit self-categorization with their low- than high-status membership. By contrast, heterosexual men showed equally strong implicit selfcategorization with gender and sexual orientation. No differences on explicit identification emerged. Hypotheses on contextual identity primes were only partially confirmed. Findings are discussed in relation to literature about sexual orientation selfcategorization and gender stigma.

How do you self-categorize? Gender and sexual orientation self-categorization in homosexual/heterosexual men and women

#### **1. Introduction**

Sexual orientation (i.e., SO) and gender are powerful categories that shape selfrepresentation. As these categories are embedded in social hierarchy, they occupy different social status positions, with men having higher status than women, and heterosexuals having higher status than homosexuals (Cadinu & Galdi, 2012; Cadinu, Galdi, & Maass, 2013). Research has shown that belonging to low status groups is related to poorer health and discrimination (Lick, Durso, & Johnson, 2013). As individuals deal with both their gender and SO at the same time, this work examines which identity is more cognitively salient depending on the combined status of these two categories. Studies have addressed how perceivers form impressions of individual targets that can be in principle assigned to multiple categories (Macrae, Bodenhausen, & Milne, 1995; Ito & Urland, 2003). However, studies on intersectionality have often adopted an out-group categorization and stereotyping perspective (Kang & Bodenhausen, 2015), leaving the question of how multiple memberships shape individuals' self and in-group perception under-investigated.

So far, research (Lou, Lalonde, & Wilson, 2011; Pittinsky, Shih, & Ambady, 1999; Roccas & Brewer, 2002) has mostly used explicit measures of individuals' identity like self-reports, which may involve *intentional* self-awareness and self-presentation strategies (e.g., monitoring personal answers with the aim of being positively judged). Implicit measures capture instead *unintentional* mental associations between concepts related to the self and the in-group (Forscher et al., 2017).

Here, we recast the analysis of double membership, namely gender and SO identity, in the area of implicit self-categorization and explicit identification. Implicit selfcategorization refers to cognitive associations between self and in-group (Cadinu & Galdi, 2012) measured using Implicit Association Test (IAT; Greenwald, McGhee, & Schwartz, 1998). This task measures the strength of associations between words referring to the self and words/images representing the in-group. Instead, the term identification indicates the more complex construct that includes affective components of group belonging such as ties with in-group and importance of being member (Leach et al., 2008), typically assessed by explicit measures. Like explicit identification, implicit selfcategorization contributes to shape the appraisal of one's membership, and represents the cognitive component of group membership. Implicit self-categorization varies across different status groups, with low-status group displaying higher levels of selfcategorization than high-status group members (Aidman & Carroll, 1999; Cadinu & Galdi, 2012). Indeed, group status affects the extent to which these categories are cognitively accessible and shapes the representation of the self (Latrofa, Vaes, Cadinu, & Carnaghi, 2010). Hence, it is necessary to examine whether the more *intentional* explicit identification and the more unintentional and spontaneous implicit self-categorization are relevant to in-group membership representation.

We examine how female/male, homosexual/heterosexual individuals implicitly and explicitly process their double membership by analyzing self-representation with respect to these two categories. In so doing, this research fulfills different, albeit related aims. It extends previous research on individuals' self-categorization when multiple memberships are available. We address gender and SO membership as they both include a high-status (i.e., men, heterosexuals) and a low-status group (i.e., women, homosexuals). This peculiarity allows us to test whether group status molds self-categorization and identification differentially in low-status and high-status groups, as well as in groups in which the low-status is highlighted by *one* (e.g., heterosexual women) or *two* categories (e.g., lesbian women).

Also, we analyze whether self-categorization and identification are sensitive to contextual cues that activate either gender or SO membership, and whether the status of the contextually activated memberships moderates self-construal.

#### 1.1 Self-Categorizing in Low-status vs. High-status Groups

Certain groups are continuously reminded of and treated based on their low social status (Goodwin, Gubin, Fiske, & Yzerbyt, 2000). Low-status group members, such as women compared to men (Cadinu & Galdi, 2012) and gays compared to heterosexual men (Cadinu et al., 2013), show stronger implicit self-categorization and self-stereotyping, but also higher explicit in-group identification (Cadinu, Latrofa, & Carnaghi, 2013; Simon, Glässner-Bayerl, & Stratenwerth, 1991). Hence, low-status group members have higher propensity to define the self in terms of in-group membership compared to high-status group members, corroborating Cadinu and Galdi's (2012) model of Chronic Accessibility of Low Status In-group Membership (CALSIM).

To our knowledge, no research addressing self-definition construal has taken into account simultaneously two social categories that encompass both low- and high-status membership. By crossing gender and SO, we test whether the low-status in-group is more accessible to women than men, and to homosexuals than heterosexuals. Moreover, we investigate implicit self-categorization and explicit identification in the intersectional group of lesbians, which display low-status both in terms of gender and SO.

Turning to high-status groups, heterosexual men are the epitome of high-status group. Men are more valued at the societal level and their high-status position is reflected onto and maintained by gender role division (Eagly & Steffen, 1984). Also, heterosexuality is thought as social default, and cultural hetero-normative beliefs support the superiority of heterosexual over homosexual orientation. Since being man and heterosexual seem crucial to define the identity of these groups' members (Carnaghi, Maass, & Fasoli, 2011; Vandello, Bosson, Cohen, Burnaford, & Weaver, 2008), we investigate the accessibility of both gender and SO memberships in heterosexual men.

#### **1.2 Contextual Cues**

Self-categorization shifts may depend on contextual cues. Gay men engage in stronger self-stereotyping and gay-consistent self-descriptions when cues of homosexuality are salient (Cadinu et al., 2013): If reminded of their SO, gays, but not heterosexual men, show stronger implicit self-categorization and self-stereotyping. Compared to heterosexual individuals, gays show stronger cognitive associations between self and in-group when prompted by cues suggesting their low-status group membership. No research addressed whether, in a context of *double membership* based on gender and SO, implicit self-categorization can be shifted from one membership to the other by contextual cues, and whether this shift would equally occur for single and double low-status groups.

This research tests whether priming individuals with their gender or SO affects implicit self-categorization and explicit identification with each category. Priming

individuals with a self-relevant identity increased both accessibility of that in-group category at the implicit level and explicit in-group identification (Gaither, Sommers, & Ambady, 2013). Context may affect gender- and SO-based groups differently. Whereas salience of in-group category induced women to self-stereotype regardless of context, ingroup category activation led men to self-stereotype only in male-stereotypic contexts (Casper & Rothermund, 2012). Similarly, Cadinu and colleagues (2013) showed that exposing participants to SO cues induced higher implicit self-categorization and selfstereotyping in gays, but not in heterosexual men. However, no research has explored whether lesbians (vs. heterosexual women) would show the same reaction to gender and SO primes as gays (vs. heterosexual men).

#### 1.3 Overview and Hypotheses.

In line with CALSIM model, we predict that implicit gender self-categorization would be stronger for women than men (Hypothesis 1a), and implicit SO selfcategorization would be stronger for homosexual than heterosexual participants (Hypothesis 1b). As lesbians are both women and homosexuals, they belong to a group whose social status is even lower than gays' status, leading to show the strongest implicit SO self-categorization compared to gays, heterosexual men, and heterosexual women (Hypothesis 1c).

Moreover, since participants were simultaneously members of two categories we test whether gender or SO would be more accessible for each participant. We hypothesize that the low-status category would generally be more accessible than the high-status category. Gay and lesbians are expected to implicitly self-categorize more strongly with their SO (low-status membership) than with their gender category (high-status membership) (Hypothesis 2a). For lesbians, it is possible that not only the SO but also the gender category would be strongly, and equally, accessible since both categories highlight a low-status (Hypothesis 2b). Heterosexual women should implicitly self-categorize more strongly with their gender (low-status membership) than with their SO category (high-status membership) (Hypothesis 3a). With regards to heterosexual men, as in our society they are required to be both masculine and heterosexual, gender and SO implicit self-categorization are expected to be equally accessible to them (Hypothesis 3b).

As previous findings showed that gender and SO low-status groups report higher explicit identification with their low-status group compared to high-status group members (Cadinu et al., 2013; Simon et al., 1991), the same predictions advanced for implicit selfcategorization are advanced for explicit identification.

Finally, we examine whether any predicted effect would be further influenced by contextual gender or SO primes (Bosson, Prewitt-Freilino, & Taylor, 2005). According to research on category accessibility (Wheeler & Petty, 2011) and fear of misclassification (Prewitt-Freilino & Bosson, 2008), we expect that priming participants with gender would increase their gender implicit self-categorization and explicit identification with being a man or a woman, whereas priming SO would increase implicit self-categorization and explicit self-categorization and explici

#### 2. Method

#### **2.1 Participants**

After excluding bisexual participants (n = 26), the final sample ( $M_{age} = 24.18$ , SD = 4.75) included 154 heterosexual (60 men, and 94 women), and 142 homosexual (58 gays and 84 lesbians) Italian participants. It mostly consisted of workers (46.3%) and students

(30.4%); 54.7% held University degrees. Participants were recruited individually by same-gender researchers through personal contacts and Lesbian Gay Bisexual Transgender associations.

#### 2.2 Procedure and Materials

After consenting to participate in the study, participants were randomly assigned to one of the two prime conditions, performed a computer task and completed a questionnaire.

**Prime.** Participants were randomly assigned to the Gender or SO prime condition. They were presented with a statement on a paper sheet, namely "If I think about my **GENDER**, I am a man/woman" or "If I think about my **SEXUAL ORIENTATION**, I am heterosexual/homosexual", and asked to cross one of two options (man/woman or heterosexual/homosexual) (see Bosson et al., 2005). The text was written in font 26 and the words "gender" and "sexual orientation" presented in bold and capital letters.

**Implicit Gender and SO self-categorization.** Two self-categorization IATs (Greenwald et al., 1998) were used to measure implicit gender and SO self-categorization. The rationale underlying the use of the IAT to detect self-categorization is that when in-group membership is salient, it becomes cognitively more accessible; this heightened accessibility would result in stronger cognitive associations between self and in-group, resulting in faster reaction times when self and in-group share the same response key. A *Gender Self-Categorization* IAT (α ranging from .73 to .80, overall .75) was used to assess implicit accessibility of one's gender membership, namely the relative strength of cognitive associations between the categories *I* and *Man* and the categories *Others* and *Woman* as compared to the opposite pairings (i.e., *I-Woman* and *Others*-

Man). Each category was represented by 5 words: me, mine, my, I, myself and they, them, theirs, yours, you represented the target categories I and Others, respectively; man, male, boy, he, [male] child and woman, female, girl, she, [female] child represented the attribute categories Man and Woman, respectively (Greenwald & Farnham, 2000). Participants were asked to classify stimuli as fast as possible using one of two computer board response keys. The overall task included three simple-categorization (practice) blocks (20 trials) and two critical double-categorization blocks including a total of 40 trials each. The inter-trial interval was 200 ms. Incorrect responses were followed by a centered red cross, which remained on the screen for 200 ms. Participants also completed a SO Self-Categorization IAT (a ranging from .74 to .91, overall .88) that was similar to the Gender Self-Categorization IAT except that Homosexual and Heterosexual categories were used instead of *Man* and *Woman*. Depending on participants' gender, 5 pictures of gay couples or 5 pictures of lesbian couples were used to represent the *Homosexual* category, and 5 pictures of heterosexual couples to represent the *Heterosexual* category. The order of the two critical blocks within each self-categorization IAT as well as the order of the two IATs were counterbalanced across participants.

**Explicit identification**. Participants completed two scales measuring participants' explicit identification with the in-group associated with their own gender ( $\alpha = .82$ ) and SO ( $\alpha = .78$ ). Each scale consisted of 5 items (e.g., *How much do you identify with* [target in-group]; see Cadinu et al., 2013) on 7-point scales ranging from 1 (*not at all*) to 7 (*very much*). The prime condition determined the first explicit identification scale (gender vs. SO). Next, participants completed the Inclusion of In-group in the Self scale (IIS; Tropp & Wright, 2001), which is a graphical measure assessing closeness between self and in-

group. It consists of pairs of circles representing self and in-group, which are distant from each other from 1 (*not at all overlapping*) to 7 (*high degree of overlap*). Participants chose the pair of circles that better represents the closeness between themselves and the in-group. Participants completed two IIS scales, one for the men/women in-group, the other for heterosexuals/homosexuals. The order of gender and SO IIS followed the same order as the explicit identification scales. Finally, participants completed measures of gender/sexual labels offensiveness for purposes unrelated to this study and therefore not further discussed. They then reported their age, level of education, professional status, and SO. At the end, they were thanked and debriefed.

#### 3. Results

#### 3.1 Implicit Self-Categorization.

Participants' individual IAT scores of Implicit Gender and of SO Self-categorization were aggregated using Greenwald, Nosek, and Banaji's (2003) D-algorithm so that higher scores of Implicit Gender Self-categorization reflect stronger automatic associations between *self* and *gender-ingroup* (woman or man, respectively), and higher scores of Implicit SO Self-categorization reflect stronger automatic associations between *self* and *SO-in-group* (lesbian/gay, heterosexual, respectively). IAT scores were the dependent variable of a 2 (Prime: gender vs. SO) X 2 (Gender: male vs. female) X 2 (SO: heterosexual vs. gay/lesbian) X 2 (Type of Self-categorization: gender IAT vs. SO IAT) repeated measures ANOVA with the last variable within-participants. Significant main effects and interactions are reported in Table 1, non-significant effects are not reported. Pairwise comparisons (Bonferroni corrected) have been applied in case of significant interactions. Supporting Hypothesis 1a, a significant interaction between Type of Selfcategorization and participants' Gender showed higher gender IATs for women than men. In contrast, SO IATs were stronger for men than for women (see Table 2). Moreover, supporting Hypothesis 1b, a significant interaction between Type of Self-categorization showed higher SO IATs for homosexuals than heterosexuals whereas no group difference emerged on gender IATs (see Table 2).

To test Hypothesis 1c, a separate one-way ANOVA on participants' SO IAT scores included planned contrasts (coded as 3 = lesbian, -1 = gay, -1 = heterosexual women, -1 = heterosexual men) was performed. As predicted, lesbians reported higher scores compared to the other groups of participants, t(286) = 6.60, p < .001, d = .78 (see Table 3).

Moreover, Hypothesis 2a found support in the significant Type of Self-categorization X Gender X SO interaction in the factorial ANOVA mentioned above. As shown in Table 3, gays showed higher levels of SO than gender self-categorization. The same pattern emerged for lesbians who self-categorized more with SO than with gender, disconfirming Hypothesis 2b. Furthermore, confirming Hypothesis 3a, heterosexual women reported higher gender than SO self-categorization and, consistent with Hypothesis 3b, heterosexual men showed no difference between gender and SO selfcategorization.

Finally, Hypothesis 4 was not supported. A significant interaction between Type of Self-categorization and Prime showed that under SO prime IATs were higher on gender than SO. Moreover, when participants were primed with their gender, IAT scores of gender and SO were not different from each other (see Table 3). Looking at the data

differently, gender IAT scores were higher when participants were primed with SO than when primed with gender, whereas no difference between prime conditions emerged for SO IAT scores.

#### **3.2. Explicit Identification.**

Gender and SO in-group average identification scores were submitted to the same repeated measures ANOVA conducted on IAT scores. Neither significant main effects, nor interaction effects were found (*F*s < 2.31, *p*s > .13), with the exception that heterosexual participants (M = 5.21, SD = .99) reported, overall, higher levels of identification than gay/lesbian participants (M = 4.72, SD = .92), F(1,288) = 20.55, p < .001,  $\dot{\eta}_p^2 = .06$ .

#### 3.3. IIS.

The same analysis was conducted on gender and SO IISs. A main effect of participants' SO, F(1,288) = 9.15, p = .003,  $\dot{\eta}_p^2 = .03$ , was qualified by an interaction between Prime and type of IIS, F(1,288) = 3.77, p = .05,  $\dot{\eta}_p^2 = .01$ . Pairwise comparisons showed that participants primed with gender reported the self more overlapping with their gender (M = 5.50, SD = 1.27) than SO in-group (M = 5.16, SD = 1.56; p = .02). No difference emerged for participants primed with SO ( $M_{IIS\_gender} = 5.27$ , SD = 1.42 and  $M_{IIS\_SO} = 5.32$ , SD = 1.35; p = .74). Comparisons between types of prime were not significant on either gender or SO IISs (ps > .22). No other effects were found.

#### 4. Discussion

This study showed that gender and SO display different levels of accessibility for men and women, and for gay/lesbian and heterosexual individuals in line with the CALISM model (Cadinu & Galdi, 2012). Results showed that members of low-status groups (i.e., women vs men; homosexuals vs heterosexuals) self-categorized more strongly with the low- versus high-status category. Also, the SO self-categorization was higher in lesbians than in all other groups. This finding is likely to derive from the fact that, since lesbians belong to two low-status groups (i.e., women and homosexuals), their status is even lower than that of gays, who occupy a relatively higher position by virtue of their "superior" male gender.

The crossed-social status design allowed us to test which of the two memberships, gender or SO, is more accessible. For both gays and lesbians, SO membership, which defines their lower status, was more accessible than gender. For lesbians, the fact that SO prevailed over gender accessibility suggests that lesbian stigma contains in itself the discrimination associated with both SO and gender, thus making lesbians' social status lower than heterosexual women's status. This result contributes to a research area almost completely elusive so far and calls for research to further understand the identity of lesbians. However, it is worth noting that not much supplementary information was collected on our homosexual participants. Future research should consider whether additional factors, for example, self-disclosure, being part of a gay association, having a partner, may affect self-categorization, as possible indicators of the degree of connectedness of the individual with the low-status in-group.

Heterosexual women, instead, self-categorized more strongly as women than as heterosexuals, whereas they did not self-categorize as heterosexuals, indicating that their heterosexuality was not accessible when their self-concept was assessed. Heterosexual men displayed similar levels of accessibility of their SO and gender identity. In line with the precarious manhood model (Vandello et al., 2008), to be a "real" man entails both being masculine (gender-related characteristics) and heterosexual (Carnaghi et al., 2011), as both categories define the in-group high status.

All the results discussed above regarded implicit self-categorization, but not the explicit identification measure. When explicitly asked to report their identification with the two groups, no differences emerged. One possibility is that both identities were equally relevant to participants' overt self-concept. Another possibility is that explicit measures suffered from social desirability concerns. For example, low status groups' participants might not be equally comfortable expressing strong explicit identification with their low-status in-group as they are when conveying such preference via implicit self-categorization measures. Interestingly, although the identification scale and IIS were different in nature – one testing ties with the in-group, the other the overlapping association between self and in-group – similar effects emerged.

We also examined whether declaring one's gender or SO would lead participants to shifts in self-categorization (Casper & Rothermund, 2012; Cadinu et al., 2013). Priming gender and SO had an effect both at the explicit and implicit level, regardless of participants' gender and SO. At the explicit level, significant results were found only on the graphical IIS measure. Participants primed with gender consistently showed higher overlap between self and gender in-group than between self and SO in-group, whereas no differences emerged in the SO prime condition. We can only speculate regarding these unexpected results, which may derive from a compensation effect consistent with selfaffirmation theory (Steele, 1988). If one aspect of the self, that is heterosexual/homosexual, is affirmed, the need to sustain the individual's sense of selfworth has been met along one self-dimension. This fulfillment may subsequently lead to increase implicit self-categorization along an alternative identity, such as man/woman, as shown by the present results. The fact that this compensation effect occurred only after the SO prime, and only at the implicit level, suggests that asking individuals about their SO may pose a threat to their male/female identity. This tentative interpretation is in line with findings showing that being labeled or misperceived as gay/lesbian is associated with being stereotypically perceived as gender-atypical (Kite & Deaux, 1987). It is also possible that our dichotomous SO prime was reductive and less effective than other priming procedures (e.g., studies in which participants described their bi-identity for 7 minutes; Chiao et al., 2006). Another possibility is that the prime manipulation was not strong enough to make the gender or SO identity sufficiently salient. The present priming effects are overall difficult to explain and need further investigation.

The current results have important implications as gender and sexual identity represent individual differences that shape interpersonal and intergroup relations. The accessibility of one or the other social identity may affect perceivers' behaviors toward individuals and social groups in several ways, for example supporting the ingroup/derogating the out-group, maintaining/defeating social inequalities, and increasing social support and affiliation (Gaither et al., 2013). Concurrently, for low-status group members chronic accessibility of low-status membership may have detrimental psychological consequences, for example by sustaining minority stress (e.g., Lick et al., 2013).

#### 5. Conclusion

Altogether, the present study extends previous results by demonstrating that for lesbians and heterosexual women their lower-status identity, related to SO and gender respectively, was more salient at the implicit level than the alternative higher-status membership. Moreover, we demonstrated that low-status group individuals, such as heterosexual women, gays and, for the first time, lesbians are generally more likely to display such self-categorization as compared to the high-status group members' counterparts.

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Tables

Table 1

Analysis of Variance between Prime, Type of Self-categorization, Participant Gender,

and Participant SO. Only significant effects are reported.	

	df	F	р	${\dot{\eta_p}}^2$
SO	1	35.63	<.001	.11
Gender X SO	1	7.04	.008	.02
Gender X Type of self-categorization	1	18.10	<.001	.06
SO X Type of self-categorization	1	47.00	<.001	.15
Gender X SO X Type of self- categorization	1	13.67	<.001	.05
Prime X Type of self-categorization	1	6.60	.01	.02

## Table 2

IAT scores of gender and SO self-categorization across gender (upper part) and across

SO (lower part)	
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	Gender self-categorization	SO self-categorization
Gender		
Men	$.38_{a}(.42)$	$.45_{a}(.47)$
Women	.55 <sub>b</sub> (.37)	.33 <sub>c</sub> (.57)
SO		
Heterosexuals	$.49_{a}(.39)$	.13 <sub>b</sub> (.51)
Homosexuals	.48 <sub>a</sub> (.41)	.64 <sub>c</sub> (.34)

Note: Means (Standard deviations) associated with different subscripts are significantly

different from each other (p < .05).

## Table 3

IAT	Group	Heterosexual	Homosexual
Gender self-categorization	Men	$.36_{a}(.43)$	.39 <sub>a</sub> (.42)
	Women	.56 <sub>b</sub> (.36)	.54 <sub>b</sub> (.39)
SO self-categorization	Men	.35 <sub>a</sub> (.47)	.59 <sub>b</sub> (.42)
	Women	01 <sub>c</sub> (.49)	.70 <sub>d</sub> (.41)

IAT scores of gender and SO self-categorization by participants' gender and SO.

Note: Means (Standard deviations) associated with different subscripts are significantly

different from each other (p < .01).

## Table 3

IAT scores of gender and SO self-categorization by type of prime (gender vs. SO).

	Gender prime	SO prime
Gender self-categorization	.43 <sub>a</sub> (.42)	.55 <sub>b</sub> (.38)
SO self-categorization	.37 <sub>a</sub> (.56)	.38 <sub>a</sub> (.52)

Note: Means (Standard deviations) associated with different letters are significantly

different from each other (p < .01).