

Internal Motivation to Control Prejudice Mediates Stereotype Knowledge-to-Endorsement Link

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### **Abstract**

Prior studies using the Stereotype Content Model (SCM) have assumed that when instructed to do so, participants are able to provide meta-level assessments of cultural stereotypes rather than reporting individually held stereotypes. In Study 1, I replicate the SCM for five social groups in an online sample of American adults and demonstrate that cultural stereotypes and individually-held stereotypes are, indeed, empirically distinct. In Study 2, I show that high levels of internal motivation to control prejudice (IMCP) against the target group reliably inhibit stereotype endorsement, whereas high levels of external motivation to control prejudice (EMCP) have no effect or, for some target groups, are even conducive to stereotyping, which might be explained by the fact that the motivation to control prejudice scale is itself vulnerable to social desirability. High levels of IMCP are predicted by target group characteristics and participant-level demographic and attitudinal variables, notably gender and ideology.

*Keywords:* social desirability, internal motivation to control prejudice, external motivation to control prejudice, Stereotype Content Model, stereotyping

**Effects of social desirability on explicit measures of social attitudes and stereotyping**

Various explicit attitudinal measures routinely used in survey research have indicated profound shifts in intergroup attitudes towards traditionally disenfranchised groups in the United States. For example, a time-series analysis of the relevant item included in the American National Election Studies (ANES) suggests that whereas liberal and conservative respondents exhibited significant differences in terms of their explicit attitudes towards African Americans in 1970, any such differences had completely disappeared by 2004 (Nosek, Banaji, & Jost, 2009). Similarly, the public support for the institution of same-sex marriage surged from 27 percent in favor and 65 percent opposed in 1996 to 46 percent in favor and 45 percent opposed by 2012 (PewResearch Center, 2012).

However, one might ask the question to what extent such seemingly radical changes in explicitly stated attitudes are attributable to the phenomenon of social desirability, i.e., that participants want to hide their negative attitudes (impression management) or genuinely dislike the negative attitudes that they have (see for example Burdein, 2007; Nosek, 2005; Nosek et al., 2007). Results from experiments relying on various implicit methods of measurement, which are immune (Burdein, Lodge, & Taber, 2006; Nosek et al., 2007) or at least less susceptible (Banse, Seise, & Zerbes, 2001; Czellar, 2006; Steffens, 2004) to social desirability effects indeed indicate that this might be the case. For instance, Kuklinski, Cobb, and Gilens (1997) used a methodological innovation called a list experiment to demonstrate that differences in racial attitudes still persist between the South and the North of the United States. Coffman, Coffman, and Ericson (2013) employed a similar “veiled elicitation technique” to show that existing explicit methods might significantly underestimate anti-gay affect. Nosek (2005) analyzed evidence from over 10,000 online sessions using the Implicit Association test (Greenwald,

McGhee, & Schwartz, 1998) and various explicit attitude measures to demonstrate that highly salient self-presentational concerns lead to decreased correspondence between explicit and implicit measures. Moreover, results from the IAT also seem to indicate that ideology is a reliable individual-level predictor of implicit intergroup attitudes (Nosek, Banaji, & Jost, 2009).

The finding that social desirability concerns affect self-report measures of attitudes does not necessarily indicate that the same is true for stereotypes, since the affective component of intergroup bias (prejudice) and its cognitive component (stereotyping) are both theoretically and empirically distinct from each other (Fiske & Taylor, 2013, pp. 281-282). Moreover, whereas prejudice presupposes a negative intergroup attitude, stereotypes can have unequivocally positive, unequivocally negative, or mixed valence (Fiske, Cuddy, Glick, & Xu, 2002). A further important empirical difference between prejudice and stereotyping is that whereas the extent of prejudice exhibits considerable individual-level variation that can be successfully predicted on the basis of factors such as age, gender, or educational attainment (Nosek et al., 2007), many stereotypes seem to be shared within (Fiske et al., 2002) or even across societies (Cuddy, Fiske, & Glick, 2008; Cuddy et al., 2009; Fiske, Cuddy, & Glick, 2007). Experimental results indeed seem to indicate that even those who do not endorse a certain stereotype and consciously seek to avoid its use in social interactions might very well be familiar with the content of stereotypes pertaining to social groups (Stern, West, Jost, & Rule, 2013).

### **Social desirability concerns in the context of the Stereotype Content Model (SCM)**

Currently the perhaps most widely used measure of intergroup stereotypes, the Stereotype Content Model (SCM) was born out of a recognition that a lenient and multifaceted concept of stereotyping is required in order to be able to accommodate ambivalent stereotypes (Fiske, Xu, Cuddy, & Glick, 1999; Glick & Fiske, 2001; Glick, Diebold, Bailey-Werner, & Zhu, 1997).

Although this recognition was initially based on the duality of benevolent and malevolent sexism (Glick et al., 1997; Glick & Fiske, 1996; 2001; 2011), the conclusion that stereotypes are not always unequivocally negative (or positive) was extended to a number of other social groups as well. According to the SCM, intergroup stereotypes can be captured along two dimensions (warmth and competence) and judgments on these two dimensions can be consistent or contradictory, with the latter resulting in mixed stereotype content (Abele, Cuddy, Judd, & Yzerbyt, 2008; Cuddy et al., 2008; Fiske et al., 2002; 2007).

Ratings along the twin dimensions of warmth and competence yield four stereotype clusters. The low warmth–low competence cluster contains resented groups like the homeless (Harris & Fiske, 2006); the low warmth–high competence cluster, envied groups like Asians (Lin, Kwan, Cheung, & Fiske, 2005) and Jews (Glick, 2002); the high warmth–low competence cluster, pitied groups like the elderly (Cuddy & Fiske, 2004; Cuddy, Norton, & Fiske, 2005) and housewives (Cuddy, Fiske, & Glick, 2004); and the high warmth–high competence, admired in-groups and reference groups like Christians and the middle class (Fiske et al., 2002). Some target groups, such as African Americans (Fiske et al., 2002) and gay men (Clausell & Fiske, 2005) usually receive mixed ratings from respondents and thus do not seem to fit into any of these clusters. Moreover, results from multiple studies (Cuddy et al., 2009; Fiske et al., 2002) indicate that warmth ratings are predicted by the lack of perceived economic competition with the given social group and competence ratings are predicted by the perceived status of the given social group.

In the original studies carried out with the SCM (and numerous studies relying on the SCM conducted since), participants were asked not to respond to the warmth, competence, competition, and status items based on how they “think [social groups] are viewed by others”

rather than according to their “personal beliefs.” This instruction had a double objective: first, it was intended to reduce social desirability bias and second, it enabled to measure perceptions of cultural stereotypes (Fiske et al., 2002, pp. 884-885). The authors did not discount the possibility that participants might have forgotten about this instruction and responded in line with their own attitudes. However, since their analyses of results from several studies showed that ethnicity and gender are not reliable predictors of warmth, competence, competition, or status judgments in the overwhelming majority of cases, they concluded that participants probably responded as instructed (p. 898).

In this paper, I report results from two studies that investigated this claim empirically. My main research question was whether and to what extent responses to items measuring societal stereotypes (as in the original SCM) and personally endorsed stereotypes differ from each other and whether this difference is uniform across target groups (Study 1). After establishing that stereotype knowledge and stereotype endorsement are, indeed, empirically distinct, Study 2 considered demographic and attitudinal variables (most notably ideology and motivation to control prejudiced responses) that might mediate the knowledge-to-endorsement link.

### **Methods shared across studies**

#### **Participants**

Amazon’s Mechanical Turk (MTurk) online platform was used to recruit participants. MTurk is an online service with the help of which workers can be recruited for any task that can be carried out entirely over the Internet. For the last few years, it has been used extensively to recruit participants for various psychological and social science studies (Berinsky, Huber, & Lenz, 2012; Buhrmester, Kwang, & Gosling, 2011; Mason & Suri, 2012). Although samples drawn via MTurk are not perfectly representative, the differences *vis-à-vis* random samples are

quite small and at any rate substantively smaller than in the case of student samples routinely used in social psychology experiments (Henry, 2008; Peterson, 2001; Sears, 1986). On average, participants tend to be somewhat younger, somewhat more educated and somewhat more liberal than the general population (Berinsky et al., 2012). MTurk samples do not generally seem to suffer from problems of insufficient attention or motivation, as often experienced in online surveys (Berinsky et al., 2012; Buhrmester et al., 2011; Mason & Suri, 2012).

On the MTurk platform, individuals were recruited to participate in a study of “opinions about some social groups in the United States.” Visitors with IP addresses from outside the United States were automatically excluded and IP-based duplicate protection was used over the two studies (i.e., participants were not allowed to complete more than one online session). At the end of the study, participants received a randomly generated code with which they were able to claim \$.50 on MTurk in exchange for their participation.

### **Materials and procedure**

The experimental sessions were administered using the SurveyGizmo online tool to which participants were redirected after they had agreed to participate in the study. On the welcome screen, participants were greeted and asked to provide informed consent. They were informed that they would be free to withdraw their consent and discontinue their participation in the study at any time. The second screen contained some instructions regarding the structure of the study. Participants were told that first, they would be “asked some general questions” (this instruction referred to the ideology items); second, they would be “asked to provide [their] opinions regarding some social groups in the United States” (the Stereotype Content Model); and, finally, they would “answer some questions about [themselves]” (standard demographic

items and, in Study 2, social desirability items). The survey was forward-only, i.e., participants were not allowed to return to the previous screen once they submitted their responses.

Participants first completed a Likert-scale measure of ideological position and a Wilson–Patterson type questionnaire (Wilson, 1985; Wilson & Patterson, 1968) capturing different aspects of conservatism. The ideological self-positioning item and the Wilson–Patterson items were administered on separate screens, in randomized order. The ideological self-positioning item was identical to the one used in the ANES (American National Election Studies). On the Wilson–Patterson screen, participants were asked to evaluate whether they “approve or disapprove of some items or [they] are not sure.” The twelve items (presented in randomized order) were listed below each other and participants used a green “thumbs up” sign to indicate approval, a red “thumbs down” sign to indicate disapproval, and a blue question mark sign to indicate “I don’t know.” The items were used to measure four subdimensions of conservatism: “patriotism,” “nationalism,” and “obedience” measured etatism; “lower taxes,” “small government,” and “corporate tax” (reverse-scored) measured libertarianism; “socialism,” “labor unions,” and “labor strikes” (all reverse-scored) measured labor market attitudes; and “church authority,” “legalized abortion,” and “sexual freedom” (the latter two reverse-scored) measured social conservatism (Littvay, Kurdi, & Hatemi, forthcoming). These items were followed by party affiliation items from the ANES, also presented on a separate screen.

In the second step, the SCM was administered to the participants. The SCM items were presented on a separate screen for each target group assessed. The screen with the SCM items was each time preceded by an introductory screen with the name of the target group and the instruction to “answer some questions regarding [the target group].” The order of the target groups as well as of the SCM items for each target group was randomized for each participant.



Participants responded to four warmth items, four competence items, two competition items, and two status items for each target group. Items for the warmth dimension included assessments of how “friendly,” “well-intentioned,” “trustworthy” and “good-natured” members of the given group are, while assessments of the competence dimension included the traits “competent,” “capable,” “efficient,” and “skillful” (see Table 1). Assessments were made on a 5-point Likert scale whose two extreme points were marked “not at all” and “extremely,” respectively. For the competition items, the end points of the scale were marked “strongly disagree” and “strongly agree,” respectively.

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Insert Table 1 about here

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In order to avoid acquiescence bias, each adjective was included in the pool of items along with its antonym (i.e., “unfriendly,” “ill-intentioned,” “untrustworthy,” “bad-natured,” “incompetent,” “incapable,” “inefficient,” and “unskillful”), and for each target group, only one of the complementary items was displayed to any given participant. Each positive adjective and its negative counterpart were displayed with equal probability.

After completing the SCM items, participants were asked to fill out a 5-item social desirability questionnaire that had been adapted from Plant and Devine (1998) and first used in this shortened form by Nosek (2005) (Study 2 only). The first two items assessed internal motivation to avoid prejudice, items 3–4 assessed external motivation to avoid prejudice, and item 5 assessed participants’ general impression of the pervasiveness of social desirability concerns in the context of the given target group (see Table 2). Participants were instructed to respond to each of the five social desirability items for each target group included in the study. Social desirability was measured on 7-point Likert scales, with the two endpoints marked “strongly disagree” and “strongly agree,” respectively (for item 5, “not at all motivated” and

“extremely motivated,” respectively). This screen had been given the completely uninformative title “Attitudes.”

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Insert Table 2 about here

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Participants then completed a standard demographic questionnaire containing items for gender, year of birth, educational attainment, annual household income, race/ethnicity, and sexual orientation (Study 2 only). Then they received a randomly generated ID number to be able to claim compensation on MTurk and on the final screen, they were thanked for their participation and provided with an email address for questions and comments.

### **Study 1**

Study 1 demonstrates that stereotype knowledge does not automatically entail stereotype endorsement. Participants were divided into two conditions. In the stereotype knowledge condition they were asked to provide meta-level assessments of stereotypes about social groups in the United States (like in the original SCM), whereas in the stereotype endorsement condition they were asked to evaluate the same social groups along the dimensions of warmth and competence without deference to society.

#### **Method**

##### **Participants.**

The sample included 399 participants, 37 percent of whom were female. The mean age of participants was 32.28 years, with a standard deviation of 9.85 years and a median age of 28 years. Participants represented a broad cross-section of educational attainment, with 13 percent high school graduates, 36 percent with some college education but no college degree, and 51 percent with a college or graduate degree. In terms of annual household income, the sample was equally heterogeneous, with 25 percent earning below \$25,000 a year, 33 percent \$25,000 to

\$44,999, 21 percent \$50,000 to \$69,999, 13 percent \$70,000 to \$99,999, and 8 percent \$100,000 or more. 79 percent of the participants were White, 8 percent Asian, 7 percent Black/African American, 5 percent Hispanic/Latino, and 1 percent American Indian.

### **Procedure.**

The procedure of the study is described in great detail in the “Methods shared across studies” section above. Upon entering the survey, participants were assigned to either the stereotype knowledge or the stereotype endorsement condition. In the stereotype knowledge condition, the assessment items were formulated in the same way as in the original SCM, i.e., participants were asked to provide meta-level assessment of society’s assessments of the target groups (see Table 1). Participants assigned to this condition received the additional instruction to “remember that we are not asking you to provide your own opinions, but rather your assessment of how this group is generally viewed by American society” before completing the SCM items for each target group. By contrast, participants in the stereotype endorsement condition were simply asked to provide their own evaluations and did not receive any additional instruction. The target groups assessed were identical across conditions. Each target group selected represented a different cluster of the SCM (the homeless the low warmth–low competence cluster, professionals the low warmth–high competence cluster, the elderly the high warmth–low competence cluster, and the middle class the high warmth–high competence cluster). Moreover, participants were asked to evaluate African Americans, who had received ambiguous ratings in previous applications of the SCM.

### **Results and discussion**

The four items of the warmth dimension formed a reliable scale (Cronbach’s  $\alpha = .78$ ), and so did the four items of the competence dimension ( $\alpha = .80$ ) and the two items of the

competition dimension ( $\alpha = .82$ ). The internal reliability of the status scale was lower than that of the other scales but still not unacceptable ( $\alpha = .64$ ). Accordingly, the scores for each dimension were collapsed on the participant level for all further analyses. Moreover, as shown in Table 3, correlations between the warmth and competition dimensions,  $r_s(397) = .24$  to  $.53$ ,  $p < .0001$ , and the competence and status dimensions,  $r_s(397) = .34$  to  $.59$ ,  $p < .0001$ , were moderate to strong.

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Insert Table 3 about here

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Furthermore, warmth and competence ratings in the stereotype knowledge condition (i.e., where participants were asked to provide meta-level assessments of societal stereotypes) fully corresponded to prior results obtained using the SCM. The middle class was rated as both highly warm ( $M = 3.98$ ,  $SD = .64$ ) and competent ( $M = 3.94$ ,  $SD = .66$ ),  $t(207) = .77$ ,  $p = .44$ , and more warmly than any other target group ( $ps < .0001$ ) except the elderly and more competently than any other target group ( $ps < .0001$ ) except professionals. Professionals were rated as highly competent ( $M = 4.24$ ,  $SD = .70$ ) but significantly less warm ( $M = 3.26$ ,  $SD = .78$ ),  $t(207) = 15.71$ ,  $p < .0001$ , and as more competent than any other target group assessed,  $ps < .0001$ . The elderly were rated as highly warm ( $M = 4.02$ ,  $SD = .68$ ) but significantly less competent ( $M = 2.59$ ,  $SD = .74$ ),  $t(207) = 22.59$ ,  $p < .0001$ . Homeless people were rated as both significantly less warm ( $M = 2.27$ ,  $SD = .76$ ) and significantly less competent ( $M = 1.68$ ,  $SD = .71$ ),  $ps < .0001$ . African Americans were rated as both moderately warm ( $M = 2.81$ ,  $SD = .84$ ) and moderately competent ( $M = 2.83$ ,  $SD = .80$ ),  $t(207) = .66$ ,  $p = .50$ . Thus, the results obtained with this online sample of American adults corresponded to the cluster structure formerly established using the SCM (Fiske et al., 2002).

Two-way within-between ANOVAs were conducted in order to assess the effects of the stereotype knowledge vs. stereotype endorsement conditions (as a between-participant factor) and target group (as a within-participant factor) on warmth and competence ratings. There were significant main effects on warmth ratings for condition,  $F(1, 397) = 22.75$  ( $p < .0001$ ), and target group,  $F(4, 1588) = 259.58$  ( $p < .0001$ ), and a significant interaction  $F(4, 1588) = 50.81$  ( $p < .0001$ ). Similarly, there were also significant main effects on competence ratings for condition  $F(1, 397) = 74.04$  ( $p < .0001$ ), and target group,  $F(4, 1588) = 571.62$  ( $p < .0001$ ), and a significant interaction  $F(4, 1588) = 65.97$  ( $p < .0001$ ).

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Insert Table 4 about here

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Overall, participants tended to give higher warmth ratings in the stereotype endorsement condition ( $M = 3.46$ ,  $SD = 0.77$ ) than in the stereotype knowledge condition ( $M = 3.27$ ,  $SD = 1.00$ ). The same was true for competence ratings as well ( $M = 3.42$ ,  $SD = 0.86$  in the endorsement condition and  $M = 3.06$ ,  $SD = 1.18$  in the knowledge condition). The group effects were in line with those already indicated above for the stereotype knowledge condition: the middle class received above-average ratings on both dimensions; the homeless, markedly below-average ratings on both dimensions; professionals, above-average competence ratings but below-average warmth ratings; the elderly, above-average warmth ratings but below-average competence ratings; and African Americans, slightly below-average ratings on both dimensions. As indicated by the highly significant interaction between conditions and target groups, stereotype knowledge vs. stereotype endorsement had markedly different effects across the target groups (see Table 4). The middle class lost slightly on both the warmth and the competence dimension (by .26 and .16 points, respectively). Homeless people and African Americans, by contrast, gained significantly on both dimensions, with gains ranging from .59 to .96 points.

Professionals retained their moderately strong warmth assessments but lost .17 points on the competence dimension. With a loss of .17 points, elderly people were rated as somewhat less warmly but as significantly more competent (+ .65) than in the stereotype knowledge condition.

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Insert Figure 1 about here

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However, the differences between the stereotype knowledge and stereotype endorsement conditions were by no means arbitrary. As shown in Figure 1, instructing participants to provide their own assessments without deference to society had an equalizing effect on both warmth and competence ratings of the target groups. Although all between-group contrasts remained statistically significant ( $ps < .001$ ) with the exception of the difference between the warmth ratings of the middle class and the elderly, differences across target groups became substantially smaller than in the stereotype knowledge condition.

In conclusion, the pronounced differences between the stereotype knowledge and stereotype endorsement conditions in Study 1 indicate that participants do indeed pay attention to the instructions that they receive and they respond either in line with their meta-level assessments of societal stereotypes or in line with their personally held stereotypes, depending on what they are asked to do. However, the difference between both conditions is not uniform across target groups. The stereotype endorsement condition operates in an equalizing direction, with social groups stereotypically high on a given dimension losing points and social groups stereotypically low on a given dimension receiving more positive ratings.

## Study 2

Results from Study 1 have shown that stereotype knowledge and reported stereotype endorsement are empirically distinct from each other. Moreover, Study 1 has also demonstrated that the difference between familiarity and personal endorsement does not have the same effect

across target groups. In Study 2, I hypothesized that the knowledge-to-endorsement link might be mediated by perceiver-level characteristics, most notably motivation to control prejudice against the target group and ideology, as well as demographic factors such as gender.

## **Method**

### **Participants.**

The sample included 308 participants. 50 percent were female. The mean age of participants was 33.61 years, with a standard deviation of 12.1 years and a median age of 29 years. Participants represented a broad cross-section of educational attainment, with 13 percent high school graduates, 34 percent with some college education but no college degree, and 52 percent with a college or graduate degree. Annual household incomes ranged from below \$25,000 (29 percent) to \$100,000 and above (9 percent), with most participants (30 percent) falling into the \$25,000 to \$44,999 category. 77 percent of the participants were White, 9 percent Black/African American, 7 percent Asian, 4 percent Hispanic/Latino, and 1 percent American Indian. In terms of sexual orientation, 89 percent identified as heterosexual/straight, 7 percent as bisexual and 4 percent as homosexual, gay, or lesbian.

In terms of ideological positions, the sample was reasonably balanced. All ideology items were measured on a 7-point scale, with 1 denoting “extremely liberal” and 7 denoting “extremely conservative.” The ANES item measuring general ideological self-positioning and the Wilson–Patterson type item measuring labor market attitudes both exhibited a slight liberal bias. The former had a mean of 3.35 ( $SD = 1.58$ ) and the latter had a mean of 3.42 ( $SD = 1.86$ ). With a mean of 2.34 ( $SD = 1.79$ ), the sample had a pronounced liberal bias in terms of social conservatism, whereas the items measuring etatism ( $M = 4.90$ ,  $SD = 1.68$ ) and libertarianism ( $M = 4.54$ ,  $SD = 1.46$ ) were skewed in the conservative direction. Pearson’s product-moment

correlations between the five ideology items ranged from .21 to .59, all  $p$ s < .0001, suggesting, as expected, that the measures tapped into related but not completely identical constructs.

### **Procedure.**

The procedure of the study is described in great detail in the “Methods shared across studies” section above. Again, participants were randomly assigned to either the stereotype knowledge or the stereotype endorsement condition (see Table 1). The target groups assessed were identical across conditions. Each target group belonged to a different cluster of the SCM (the homeless the low warmth–low competence cluster, professionals the low warmth–high competence cluster, the elderly the high warmth–low competence cluster, and straight the high warmth–high competence cluster). Moreover, participants were asked to evaluate African Americans and gay men, who had received ambiguous ratings in previous applications of the SCM.

## **Results and discussion**

### **Replication results.**

In terms of the effects of the stereotype knowledge vs. stereotype endorsement condition and target group on warmth and competence ratings, Study 2 yielded an almost perfect replication of the results from Study 1, using an independent sample and somewhat different target groups. Significant main effects for condition were found on both warmth,  $F(1, 245) = 18.5$  ( $p < .0001$ ), and competence ratings  $F(1, 245) = 41.02$  ( $p < .0001$ ). Again, participants tended to give higher ratings on both dimensions (by .24 points on the warmth dimension and by .38 points) in the stereotype endorsement condition. As in Study 1, significant main effects for target group emerged on both warmth,  $F(5, 1225) = 113.51$  ( $p < .0001$ ), and competence ratings,  $F(5, 1225) = 215.5$  ( $p < .0001$ ). Most group effects were in the expected direction. Straight



people received above-average ratings on both dimensions; homeless people received markedly below-average ratings on both dimensions; professionals received above-average ratings on the competence dimension but below-average ratings on the warmth dimension; elderly people received above-average ratings on the warmth dimension but below-average ratings on the competence dimension; and African Americans, somewhat below-average ratings on both dimensions. Surprisingly, just as straight people, gay men received above-average ratings on both dimensions.

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Insert Figure 2 about here

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Moreover, a significant interaction effect between condition and target group was found on both warmth,  $F(5, 1225) = 23.09$  ( $p < .0001$ ), and competence ratings,  $F(5, 1225) = 24.8$  ( $p < .0001$ ). As shown in Figure 2, the stereotype endorsement condition had an equalizing effect again, with straight people receiving slightly lower ratings on both dimensions; gay men, homeless people, and African Americans receiving higher ratings on both dimensions; elderly people receiving essentially the same warmth rating but higher competence ratings; and professionals losing slightly on both dimensions.

### **IMCP and EMCP as participant-level predictors of stereotype endorsement.**

The main question of Study 2, however, was whether this equalizing effect applies in the same way for every participant or there are participant-level predictors with an effect on the knowledge-to-endorsement link. In order to be able to answer this question, three-way ANOVAs were conducted for each dimension and target group, with the knowledge vs. endorsement condition, low vs. high internal motivation to control prejudice against the given target group, and low vs. high external motivation to control prejudice against the given target group, all three as between-participant variables.

The results of these ANOVAs, displayed in Table 4, suggest that familiarity with a stereotype does not automatically entail endorsement of that stereotype, since a main effect emerges for stereotype knowledge vs. stereotype endorsement for all target groups and dimensions, with the exception of the competence dimension for straight people and the warmth dimension for the elderly and professionals.

Internal motivation to control prejudice (IMCP) against the given target group, as a participant-level variable, had a significant main effect on both dimensions for all target groups, although the effect sizes are slightly different across target groups. This effect was most pronounced for gay men as a target group, with those high on IMCP giving them markedly higher warmth (+ .60 points) and competence (+ .57) ratings, whereas it was least pronounced for professionals (with gains of + .027 and + .22 points, respectively). External motivation to control prejudice (EMCP) against the target group, by contrast, had no detectable effect on the ratings of gay people and African Americans. Moreover, unlike high IMCP against the target group, high EMCP actually had negative effects in all cases where its main effect was significant, i.e., on the warmth ratings of straight people and elderly people, and the competence ratings of professionals, although the effect sizes were rather modest, ranging from .17 to .23 points.

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Insert Figure 3 about here

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The stereotype knowledge vs. endorsement condition and high vs. low IMCP against the given target group entered into an interaction effect for some of the target groups, but not for others. As shown in Figure 3, the overall picture is that for those low on IMCP, the dashed lines representing the effect of stereotype endorsement as compared to stereotype knowledge point towards the middle of the graph, whereas for those high on IMCP, they point to the top right-

hand corner (i.e., the high warmth–high competence cluster). For gay people and the homeless as target groups, the gains due to the endorsement condition are markedly more pronounced on both dimensions when we consider participants high on IMCP. For the elderly, the same applies to the competence dimension, and the elderly actually lost points on the warmth dimension with those low on IMCP (although with .17 points, the loss is rather modest). For professionals, ratings on either dimension did not differ between both conditions for those high on IMCP (i.e., those high on IMCP endorsed the stereotype that professionals are very competent but rather less warm), whereas for those low on IMCP, professionals lost .27 points on the warmth dimension and .37 on the competence dimension. For straight people and African Americans, knowledge vs. endorsement and IMCP produced no interaction effect.

The stereotype knowledge vs. stereotype endorsement condition and EMCP did not enter into an interaction effect for any dimension or target group. This indicates that to the extent that EMCP had an impact on the assessments, it operated in the same way across conditions. However, for some of the target groups, marginally significant to significant interaction effects emerged between IMCP and EMCP. For the elderly (warmth) and for professionals (competence), those high on EMCP but low on IMCP gave more negative ratings to these target groups than any other cluster of participants. One might interpret this effect as “stereotype fatigue.” These participants are repeatedly being confronted with the cultural stereotype that elderly people are warm and professionals are competent; however, since they do not seem to personally endorse these stereotypes, they might experience constant exposure to them as burdensome. The interaction effect took on a different shape for homeless people as a target group, where those low on *both* IMCP and EMCP gave homeless people significantly more negative competence ratings than any other cluster of participants.

On the face of it, these results seem to indicate that to the extent that warmth and competence assessments differ from each other across conditions, this is due to internal, rather than external, motivation to control prejudice against the given target group. That is, although it is clear that participants did pay sufficient attention to the instructions on responding in line with cultural or individual stereotypes, one might question whether asking participants to provide meta-level assessments of societal stereotypes is an efficient way of overcoming social desirability concerns, as originally suggested by Fiske and colleagues (2002). Rather, the results discussed above seem to indicate that the SCM masks existing individual-level differences in terms of intergroup attitudes that arise from an internal motivation to control prejudiced reactions to societal outgroups. Moreover, based on the fact that high EMCP had either no effect or a negative effect on the ratings of target groups, one might conclude that the mere attempt “to appear to be accepting” did not inhibit participants from endorsing cultural stereotypes, whereas genuine internal motivation to do so did.

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Insert Table 6 about here

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However, several features of the data point towards a different interpretation, namely that the items measuring internal and external motivation to control prejudice might themselves be vulnerable to social desirability concerns. First of all, as shown in Table 6, self-reported levels of external motivation to control prejudice are significantly higher than self-reported levels of internal motivation to control prejudice for all target groups. With the exception of professionals as a target group, mean differences are very substantial, ranging from 1.82 to 2.19 on a 7-point scale. Second, stereotype knowledge vs. endorsement and IMCP had no interaction effect on either dimension for African Americans as a target group. This finding is even more surprising considering that according to participants’ own assessments, social desirability concerns are most

salient for African Americans ( $M = 4.69$ ,  $SD = 1.44$ ) among the target groups assessed. Finally, external motivation to control prejudice had no effect whatsoever on the ratings of African Americans and gay men in either condition, although previous research using implicit measures indicates that self-reported assessments of these target groups are heavily vulnerable to social desirability concerns (Coffman et al., 2013; Greenwald et al., 1998; Kuklinski et al., 1997; Nosek, 2005). Thus, it seems that participants tend to overreport internal motivation while at the same time underreporting external motivation to control prejudice, either because they are consciously unaware of their genuine motivations or because they are unwilling to admit to them.

**Target group-level and participant-level predictors of internal and external motivation to control prejudice.**

Although the results discussed above indicate that self-reported measures of the locus of motivation to control prejudice might be biased, reported levels of external and internal motivation to control prejudice against the target groups included in the study were not uniform. Therefore, a multi-level modeling strategy was adopted in order to be able to assess the differences between target groups and the effects of individual-level predictors on reported levels of motivation to control prejudice.

In order to test the significance of individual-level effects (i.e., whether multilevel modeling is a justified and expedient strategy), a likelihood ratio test was conducted, comparing the null single-level model to the null multilevel model (see Table 7). The likelihood ratio test indicated greatly improved model fit over the single-level model,  $\chi^2(1) = 247.62$ ,  $p < .0001$ . Both this fact and the variance partition coefficient of 0.16, indicating that about 16 percent of the total variance can be attributed to between-participant factors, suggests that a multilevel,

rather than a single-level, model should be used. The null multilevel model also provides an estimate of the mean level of motivation to control prejudice across participants and target groups. The estimate suggests that at 3.86, the average motivation is somewhat below the midpoint of the 7-point scale.

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Insert Table 7 about here

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The relevant likelihood ratio tests indicate that  $ML_4$ , which includes both fixed and random effects for IMCP and target group, has significantly better model fit than the null model,  $\chi^2(33) = 2174.6, p < .0001$ ;  $ML_1$ , which only includes a fixed effect for IMCP,  $\chi^2(32) = 993.57, p < .0001$ ;  $ML_2$ , which includes fixed and random effects for IMCP,  $\chi^2(30) = 293.69, p < .0001$ ; and  $ML_3$ , which includes fixed and random effects for IMCP, but only fixed effects for the target groups,  $\chi^2(25) = 86.085, p < .0001$ . Moreover, adding locus of motivation and the target groups as predictors to the model reduced the unexplained between-participant variance component to 12 percent, down from 16 percent above.

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Insert Table 8 about here

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The estimates for fixed effects from  $ML_4$  (see Table 8) indicate that, as already discussed above, participants tend to report higher levels of internal motivation than external motivation to control prejudice. At 1.91 points, this difference is fairly sizeable. Moreover, it is apparent that reported levels of motivation to control prejudice change as a function of the target groups assessed as well. Homeless people and gay people receive the highest scores as compared to straight people (i.e., the reference category), whereas professionals elicit substantially lower levels of motivation to control prejudice than straight people.

Two further multilevel models were fitted to the data, with  $ML_5$  including three-way cross-level interactions between respondent gender, locus of motivation, and target group and

ML<sub>6</sub> additionally including three-way cross-level interactions between various measures of respondent ideology, locus of motivation, and target group. Adding respondent gender resulted in a significant improvement of model fit over ML<sub>4</sub>, with  $\chi^2(17) = 202.90, p < .0001$  and adding respondent ideology resulted in further improvement of model fit over ML<sub>5</sub>,  $\chi^2(17) = 491.45, p < .0001$ . Model tables for ML<sub>5</sub> and ML<sub>6</sub> are reported in the Annex. Results from other multilevel models including the effects of other individual-level variables, like educational attainment and income, are not reported because although adding further variables to the model produced gains in model fit, the effects themselves were substantively very small.

Figure 4 shows the effect of participant gender on the expected values of external and internal motivation to control prejudice across the target groups assessed. As illustrated in Figure 4, no gender differences were found for external motivation to control prejudice. However, when it comes to internal motivation to control prejudice against the target groups, participant gender emerged as a consistent predictor, with women reporting higher levels of IMCP against gay people, African Americans, the homeless, and the elderly, but not against straight people and professionals. In summary, women were more likely to report higher levels of IMCP against social groups usually perceived as disadvantaged but not against target groups usually perceived as privileged.

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Insert Figure 4 about here

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Unlike gender, participant ideology (as measured on a 7-point Likert scale) had an effect on both external and internal motivation to control prejudice, although not uniformly for all target groups assessed (see Figure 5). Conservatives tended to report higher levels of external motivation to control prejudice than liberals; however, this effect only reached sizeable proportions for African Americans, the homeless, the elderly, and professionals as target groups.

No differences were found between liberals and conservatives in terms of their reported levels of IMCP for straight people, the elderly, and professionals. For gay people, African Americans, and the homeless, i.e., those target groups that were characterized by mixed ratings on both dimensions in the Stereotype Content Model, liberals tended to report significantly higher levels of IMCP than did conservatives.

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Insert Figure 5 about here

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However, when ideology is measured in a multidimensional way, rather than using a unidimensional Likert scale, the directionality of effects can change. Highly socially conservative participants reported higher levels of external motivation to control prejudice against African Americans and the elderly and, somewhat surprisingly, higher levels of internal motivation to control prejudice against the homeless than social liberals (see Figure 6). Moreover, the difference between liberals and conservatives in terms of internal motivation to control prejudice against gay men emerged much more markedly when considering only the social conservatism dimension than with a unidimensional measurement of ideology. Furthermore, those high on etatism tended to report higher levels of both EMCP and IMCP, especially internal motivation to control prejudice against professionals, the elderly and straight people, i.e., target groups high on the warmth and/or competence dimension in the SCM (see Table 9 in the Annex). The two remaining dimensions of conservatism, i.e., libertarianism and labor market attitudes, were substantially less useful as predictors of motivation to control prejudice, although those high on libertarianism tended to report lower levels of IMCP against gay people and professionals but higher IMCP against the elderly, and those with conservative labor market attitudes were usually somewhat lower in IMCP against straight people, the homeless, and the elderly.



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Insert Figure 6 about here

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### **General Discussion**

The two online studies reported above demonstrate that participants are, in fact, able to follow instructions and do not substitute their own personally held views for societal stereotypes when asked to respond according to the latter rather than the former. However, it is questionable to what extent the methodological choice of instructing participants to provide meta-level judgments of societal stereotypes is an appropriate way of mitigating social desirability effects.

In Study 2, I have shown that insomuch as stereotype knowledge and stereotype endorsement are empirically distinct from each other, the difference between the two is mostly due to internal, rather than, external motivation to control prejudice against societal outgroups. This might suggest that although cultural stereotypes are largely consensual, those reporting high levels of internal motivation to control prejudice refuse to endorse stereotypes although they are familiar with them. However, results from both the studies reported here and other studies using implicit methods of attitude measurement, most notably the “list experiment,” have demonstrated that external motivational factors can be highly efficient inhibitors of open expression of anti-Black and anti-gay bias. This, in turn, indicates that the locus of motivation scale might itself not be immune to social desirability concerns, with participants overreporting internal motivations and, concomitantly, underreporting external motivations. This suggests that it might be a more expedient strategy to use implicit, rather than explicit, methods of measurement, or a combination of both, when trying to determine the locus of motivation to control prejudiced responses against societal outgroups.

At the same time, this apparent overreporting does not affect participants equally. While women and men do not consistently differ from each other in terms of reported levels of external

motivation to control prejudice, women tend to report higher internal motivation to control prejudice against vulnerable target groups than men. Ideology seems to play a role in reported levels of motivation as well, with liberals reporting markedly higher levels of IMCP and lower levels of EMCP against disadvantaged social groups like gay men, African Americans, and the elderly. At the same time, it is apparent that not all forms of liberal or conservative ideology are alike. Certain subdimensions of conservatism, most notably social conservatism, actually predict higher levels of IMCP against the homeless and lower levels of EMCP against African Americans and the elderly. This indicates that further research should address the relationship between ideology and social desirability in more systematized ways and possibly in relation to more target groups than included here.

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**Annex**

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Insert Table 9 here

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Table 1

*Items of the Stereotype Content Model.*

Dimension	Condition	Item
Warmth	Stereotype knowledge	As viewed by society, how friendly/well-intentioned/trustworthy/good-natured are [members of the target group]?
	Stereotype endorsement	How friendly/well-intentioned/trustworthy/good-natured do you think [members of the target group] are?
Competence	Stereotype knowledge	As viewed by society, how competent/capable/efficient/skillful are [members of the target group]?
	Stereotype endorsement	How competent/capable/efficient/skillful do you think [members of the target group] are?
Competition	Stereotype knowledge and stereotype endorsement	If [members of the target group] get special breaks (such as preference in hiring decisions), this is likely to make things more difficult for me. Resources that go to [members of the target group] are likely to take away resources from people like me.
Status	Stereotype knowledge	How prestigious are the jobs typically achieved by [members of the target group]?
	Stereotype endorsement	How economically successful have [members of the target group] been?

*Note.* The phrases in square brackets were replaced with the name of each target group.

Table 2

*Items of the social desirability scale.*

Internal motivation to control prejudice (IMCP)	External motivation to control prejudice (EMCP)	Perceived level of social desirability
(1) Being accepting of [the target group] is important to my self-concept. (2) Because of my personal values, I believe that making negative judgments about [the target group] is wrong.	(3) I try to hide negative thoughts about [the target group] to avoid negative reactions from others. (4) I attempt to appear accepting of [the target group] to avoid disapproval from others.	(5) How motivated is the average person to conceal negative feelings about [the target group]?

*Note.* The phrases in square brackets were replaced with the name of each target group.

Table 3

*Pearson's product-moment correlations between competition and warmth and between status and competence for each target group.*

Dimension	Target group				
	Middle class	Homeless	Professionals	Elderly	African Americans
Competition– warmth	-.310 [-.214; -.400]	-.242 [-.337; -.142]	-.262 [-.355; -.163]	-.306 [-.397; -.210]	-.526 [-.597; -.447]
Status– competence	.341 [.248; .430]	.436 [.348; .516]	.587 [.515; .651]	.400 [.309; .483]	.549 [.473; .617]

*Note.* The brackets contain 95-percent confidence intervals;  $p < .0001$  for all correlations.

Table 4

*Effects of the stereotype knowledge vs. stereotype endorsement condition on the warmth and competence ratings of the middle class, homeless people, professionals, the elderly, and African Americans (Study 1).*

Target group	Dimension	Condition		Difference	<i>t</i>	Df	<i>p</i>	
		Stereotype knowledge	Stereotype endorsement					
Middle class	Warmth	3.9776	3.7177	.2599	4.0871	395.5008	.0001	***
	Competence	3.9443	3.7827	.1616	2.4967	396.4645	.0129	*
Homeless	Warmth	2.2656	3.0262	-.7606	-9.9857	394.5023	.0000	***
	Competence	1.6843	2.6462	-.9619	-12.1110	373.1169	.0000	***
Professionals	Warmth	3.2620	3.2631	-.0011	-.0148	394.6731	.9882	
	Competence	4.2436	3.9873	.2562	3.5487	388.1203	.0004	***
Elderly	Warmth	4.0168	3.8438	.1730	2.4587	387.5598	.0144	***
	Competence	2.5897	3.2439	-.6541	-9.0375	396.7369	.0000	***
African Americans	Warmth	2.8077	3.4703	-.6626	-8.1353	396.7521	.0000	***
	Competence	2.8321	3.4254	-.5933	-8.2212	390.6735	.0000	***

Table 5

*Three-way between-participant ANOVAs assessing the effects of the stereotype knowledge vs. stereotype endorsement condition, internal motivation to control prejudice, and external motivation to control prejudice on the warmth and competence ratings of straight people, gay men, elderly people, homeless people, African Americans, and professionals (Study 2).*

Dimension	Effect	Target group											
		Straight people		Gay men		Elderly		Homeless		African Americans		Professionals	
		F	<i>p</i>	F	<i>p</i>	F	<i>p</i>	F	<i>p</i>	F	<i>p</i>	F	<i>p</i>
Warmth	K/E	9.281	.003	23.628	.000	.070	.792	76.226	.000	52.980	.000	3.037	.082
	IMCP	23.731	.000	44.193	.000	29.922	.000	25.494	.000	36.320	.000	9.896	.002
	EMCP	4.590	.033	.323	.571	6.802	.010	2.249	.135	.976	.324	.344	.558
	K/E × IMCP	.948	.331	3.144	.077	4.157	.042	3.894	.049	1.855	.174	4.535	.034
	K/E × EMCP	.601	.439	.266	.606	1.959	.163	.707	.401	.001	.979	1.621	.204
	IMCP × EMCP	.851	.357	2.316	.129	2.821	.094	3.052	.082	.071	.791	.234	.629
Competence	K/E	2.183	.141	19.667	.000	61.673	.000	107.083	.000	43.143	.000	1.052	.002
	IMCP	36.212	.000	35.801	.000	16.707	.000	17.125	.000	24.148	.000	7.497	.007
	EMCP	1.494	.223	.035	.852	.819	.366	3.276	.071	1.113	.293	7.138	.008
	K/E × IMCP	.154	.695	4.970	.027	8.894	.003	17.443	.000	2.056	.153	5.091	.025
	K/E × EMCP	.159	.691	.124	.725	3.190	.075	.069	.793	.002	.968	1.723	.190
	IMCP × EMCP	2.694	.102	.789	.375	1.788	.182	14.899	.000	.036	.850	4.961	.027

*Note.* “K/E” denotes stereotype knowledge vs. stereotype endorsement condition, “IMCP” denotes internal motivation to control prejudice against the given target group, and “EMCP” denotes external motivation to control prejudice against the given target group. IMCP and EMCP were transformed into binary variables using a median split. Three-way interactions were not estimated due to insufficient statistical power. Effects statistically significant on the .05 level are marked with a gray background. Residual degrees of freedom equal 264 for straight people and gay men as target groups; 270 for African Americans; and 299 for all other target groups.

Table 6

*Repeated-measures t tests comparing internal motivation and external motivation to control prejudice against the elderly, African Americans, gay men, straight people, homeless people, and professionals (Study 2).*

Target group	IMCP		EMCP		<i>t</i>	Df	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Elderly	5.28	1.53	3.09	1.71	16.18	304	0.000
African Americans	5.22	1.58	3.15	1.65	14.61	276	0.000
Gay men	4.96	1.85	2.93	1.66	13.97	270	0.000
Straight people	4.79	1.68	2.79	1.68	14.72	270	0.000
Homeless	4.63	1.78	2.81	1.56	14.23	305	0.000
Professionals	4.01	1.69	2.71	1.55	12.00	305	0.000

Table 7

*Null single-level and null multilevel models for internal and external motivation to control prejudice against the target groups.*

Null single-level model (SL <sub>0</sub> )				Null multilevel model (ML <sub>0</sub> )			
AIC	BIC	LL	Deviance	AIC	BIC	LL	Deviance
14453.77	14466.07	-7224.88	13036.37	14208.15	14226.61	-7101.07	14202.15
Random effects				Random effects			
				Groups	Name	Variance	SD
				Subject	(Intercept)	0.5831	0.7636
				Residual		3.1657	1.7792
Fixed effects				Fixed effects			
Effect	Estimate	SE	<i>t</i>	Effect	Estimate	SE	<i>t</i>
(Intercept)	3.8589	0.03288	117.4	(Intercept)	3.8615	0.0532	72.6
VPC		–		VPC		0.1555	



Table 8

*Multilevel models estimating internal and external motivation to control prejudice against the target groups with within-participant predictors.*

	ML <sub>1</sub>			ML <sub>2</sub>			ML <sub>3</sub>			ML <sub>4</sub>		
	AIC	BIC	LL	AIC	BIC	LL	AIC	BIC	LL	AIC	BIC	LL
	13030	13054	-6511	12333	12370	-6161	12136	12203	-6057	12100	12321	-6014
Random effects												
Within-participant	Variance		SD	Variance		SD	Variance		SD	Variance		SD
(Intercept)	0.668		0.817	1.536		1.239	1.552		1.246	1.580		1.257
IMCP	-		-	2.595		1.611	2.633		1.623	2.669		1.634
African Americans	-		-	-		-	-		-	0.783		0.885
Gays	-		-	-		-	-		-	1.106		1.052
Homeless	-		-	-		-	-		-	0.410		0.640
Elderly	-		-	-		-	-		-	0.993		0.996
Professionals	-		-	-		-	-		-	0.560		0.748
Residual	2.181		1.477	1.473		1.214	1.370		1.171	1.065		1.032
Fixed effects												
Within-participant	Estimate	SE	<i>t</i>	Estimate	SE	<i>t</i>	Estimate	SE	<i>t</i>	Estimate	SE	<i>t</i>
(Intercept)	2.914	0.059	49.61	2.909	0.077	37.93	2.854	0.090	31.79	2.842	0.087	32.66
IMCP	1.896	0.050	37.83	1.907	0.101	18.87	1.906	0.101	18.87	1.908	0.091	19.10
African Americans	-	-	-	-	-	-	0.377	0.071	5.28	0.175	0.089	1.97
Gays	-	-	-	-	-	-	0.156	0.071	2.19	0.377	0.080	4.62
Homeless	-	-	-	-	-	-	-0.091	0.070	-1.31	0.391	0.071	5.43
Elderly	-	-	-	-	-	-	0.379	0.070	5.45	-0.079	0.084	-0.94
Professionals	-	-	-	-	-	-	-0.447	0.070	-6.44	-0.435	0.075	-5.78

*Note.* “IMCP” denotes internal motivation to control prejudice. “IMCP” and the variables for target groups are all coded as binary.

Table 9

*Multilevel models estimating internal and external motivation to control prejudice against the target groups with within-participant and between-participant predictors.*

	ML <sub>5</sub>			ML <sub>6</sub>		
	AIC	BIC	LL	AIC	BIC	LL
	11931	12257	-5913	11560	12253	-5667
Random effects						
Within-participant	Variance		SD	Variance		SD
(Intercept)	1.484		1.218	1.488		1.220
IMCP	2.497		1.580	2.335		1.528
African Americans	0.671		0.819	0.451		0.671
Gays	1.227		1.108	0.643		0.802
Homeless	0.713		0.844	0.660		0.812
Elderly	0.468		0.684	0.390		0.625
Professionals	0.604		0.777	0.588		0.767
Residual	1.011		1.005	0.933		0.966
Fixed effects						
Within-participant	Estimate	SE	<i>t</i>	Estimate	SE	<i>t</i>
(Intercept)	2.742	0.130	21.024	2.740	0.131	20.859
IMCP	1.837	0.176	10.462	1.843	0.173	10.646
African Americans	0.427	0.139	3.078	0.385	0.132	2.921
Gays	0.254	0.150	1.692	0.240	0.135	1.775
Homeless	-0.024	0.136	-0.173	-0.032	0.134	-0.242
Elderly	0.437	0.131	3.346	0.417	0.127	3.280
Professionals	-0.024	0.134	-0.176	-0.033	0.132	-0.250
IMCP × African Americans	-0.149	0.171	-0.870	-0.035	0.168	-0.207
IMCP × Gays	-0.231	0.168	-1.373	-0.141	0.166	-0.852
IMCP × Homeless	-0.344	0.166	-2.066	-0.272	0.164	-1.663
IMCP × Elderly	-0.215	0.167	-1.288	-0.207	0.164	-1.262
IMCP × Professionals	-0.605	0.166	-3.638	-0.606	0.164	-3.707
Between-participant	Estimate	SE	<i>t</i>	Estimate	SE	<i>t</i>
Female	0.095	0.188	0.507	0.113	0.191	0.589
Etatism	–	–	–	0.033	0.062	0.532
Labor	–	–	–	0.027	0.059	0.458
Social Conservatism	–	–	–	-0.008	0.065	-0.117
Libertarianism	–	–	–	0.075	0.076	0.987
Ideology	–	–	–	0.024	0.087	0.271
Cross-level interactions	Estimate	SE	<i>t</i>	Estimate	SE	<i>t</i>
Female × IMCP	0.355	0.253	1.404	0.307	0.252	1.218
Female × African Americans	-0.202	0.200	-1.013	-0.118	0.191	-0.614

Female × Gays	-0.240	0.219	-1.097	-0.253	0.199	-1.271
Female × Homeless	0.084	0.196	0.429	0.073	0.195	0.376
Female × Elderly	-0.307	0.188	-1.634	-0.287	0.185	-1.547
Female × Professionals	-0.120	0.192	-0.622	-0.117	0.193	-0.605
Female × IMCP × African Americans	0.442	0.247	1.791	0.266	0.244	1.087
Female × IMCP × Gays	0.595	0.246	2.416	0.619	0.243	2.541
Female × IMCP × Homeless	0.309	0.240	1.287	0.203	0.239	0.853
Female × IMCP × Elderly	0.785	0.240	3.266	0.819	0.239	3.429
Female × IMCP × Professionals	-0.225	0.240	-0.937	-0.190	0.239	-0.797
Etatism × IMCP	–	–	–	0.186	0.082	2.260
Labor × IMCP	–	–	–	-0.113	0.078	-1.453
Social × IMCP	–	–	–	-0.027	0.086	-0.314
Libertarianism × IMCP	–	–	–	-0.109	0.100	-1.091
Ideology × IMCP	–	–	–	-0.023	0.115	-0.201
Etatism × African Americans	–	–	–	0.070	0.063	1.103
Etatism × Gays	–	–	–	0.063	0.066	0.954
Etatism × Homeless	–	–	–	0.078	0.064	1.222
Etatism × Elderly	–	–	–	-0.015	0.060	-0.241
Etatism × Professionals	–	–	–	0.060	0.063	0.953
Labor × African Americans	–	–	–	-0.020	0.059	-0.331
Labor × Gays	–	–	–	0.032	0.061	0.520
Labor × Homeless	–	–	–	-0.035	0.060	-0.585
Labor × Elderly	–	–	–	-0.042	0.057	-0.736
Labor × Professionals	–	–	–	-0.053	0.060	-0.888
Social × African Americans	–	–	–	-0.151	0.065	-2.327
Social × Gays	–	–	–	-0.029	0.067	-0.432
Social × Homeless	–	–	–	-0.023	0.066	-0.352
Social × Elderly	–	–	–	-0.102	0.063	-1.629
Social × Professionals	–	–	–	-0.001	0.065	-0.017
Libertarianism × African Americans	–	–	–	-0.112	0.076	-1.469
Libertarianism × Gays	–	–	–	-0.126	0.080	-1.586
Libertarianism × Homeless	–	–	–	-0.090	0.077	-1.158
Libertarianism × Elderly	–	–	–	-0.098	0.074	-1.333
Libertarianism × Professionals	–	–	–	-0.068	0.076	-0.896
Ideology × African Americans	–	–	–	0.137	0.087	1.576
Ideology × Gays	–	–	–	0.009	0.091	0.096
Ideology × Homeless	–	–	–	0.046	0.089	0.519
Ideology × Elderly	–	–	–	0.086	0.085	1.013
Ideology × Professionals	–	–	–	0.059	0.088	0.668
IMCP × Etatism × African Americans	–	–	–	-0.245	0.081	-3.030
IMCP × Etatism × Gays	–	–	–	-0.222	0.081	-2.744
IMCP × Etatism × Homeless	–	–	–	-0.300	0.078	-3.841
IMCP × Etatism × Elderly	–	–	–	-0.070	0.078	-0.897

IMCP × Etatism × Professionals	–	–	–	-0.003	0.078	-0.036
IMCP × Labor × African Americans	–	–	–	0.128	0.076	1.694
IMCP × Labor × Gays	–	–	–	0.053	0.075	0.703
IMCP × Labor × Homeless	–	–	–	0.009	0.074	0.119
IMCP × Labor × Elderly	–	–	–	0.033	0.074	0.448
IMCP × Labor × Professionals	–	–	–	0.184	0.074	2.490
IMCP × Social × African Americans	–	–	–	0.200	0.083	2.426
IMCP × Social × Gays	–	–	–	-0.340	0.082	-4.166
IMCP × Social × Homeless	–	–	–	0.193	0.081	2.394
IMCP × Social × Elderly	–	–	–	0.136	0.081	1.677
IMCP × Social × Professionals	–	–	–	0.001	0.081	0.018
IMCP × Libertarianism × African Americans	–	–	–	0.161	0.097	1.653
IMCP × Libertarianism × Gays	–	–	–	-0.016	0.098	-0.161
IMCP × Libertarianism × Homeless	–	–	–	0.059	0.095	0.621
IMCP × Libertarianism × Elderly	–	–	–	0.212	0.095	2.235
IMCP × Libertarianism × Professionals	–	–	–	0.008	0.095	0.079
IMCP × Ideology × African Americans	–	–	–	-0.404	0.111	-3.636
IMCP × Ideology × Gays	–	–	–	-0.179	0.112	-1.599
IMCP × Ideology × Homeless	–	–	–	-0.249	0.109	-2.288
IMCP × Ideology × Elderly	–	–	–	-0.082	0.109	-0.751
IMCP × Ideology × Professionals	–	–	–	-0.063	0.109	-0.576

*Note.* “IMCP” denotes internal motivation to control prejudice. “IMCP” and the variables for target groups are all coded as binary. “Female” is a binary variable for participant gender, with 1 denoting female participants and 0 denoting male participants. Ideology variables, originally measured on 7-point scales with 1 denoting “extremely liberal” and 7 denoting “extremely conservative” were centered for these analyses, i.e., 0 denotes the mean level of each ideology variable.

Figure 1. Effects of the stereotype knowledge vs. stereotype endorsement condition on the warmth and competence ratings of the middle class, homeless people, professionals, the elderly, and Africans Americans (Study 1). The knowledge condition is indicated by diamonds, whereas the endorsement condition is indicated by circles. Mean scores for the same target group across the two conditions are connected with a dashed line.

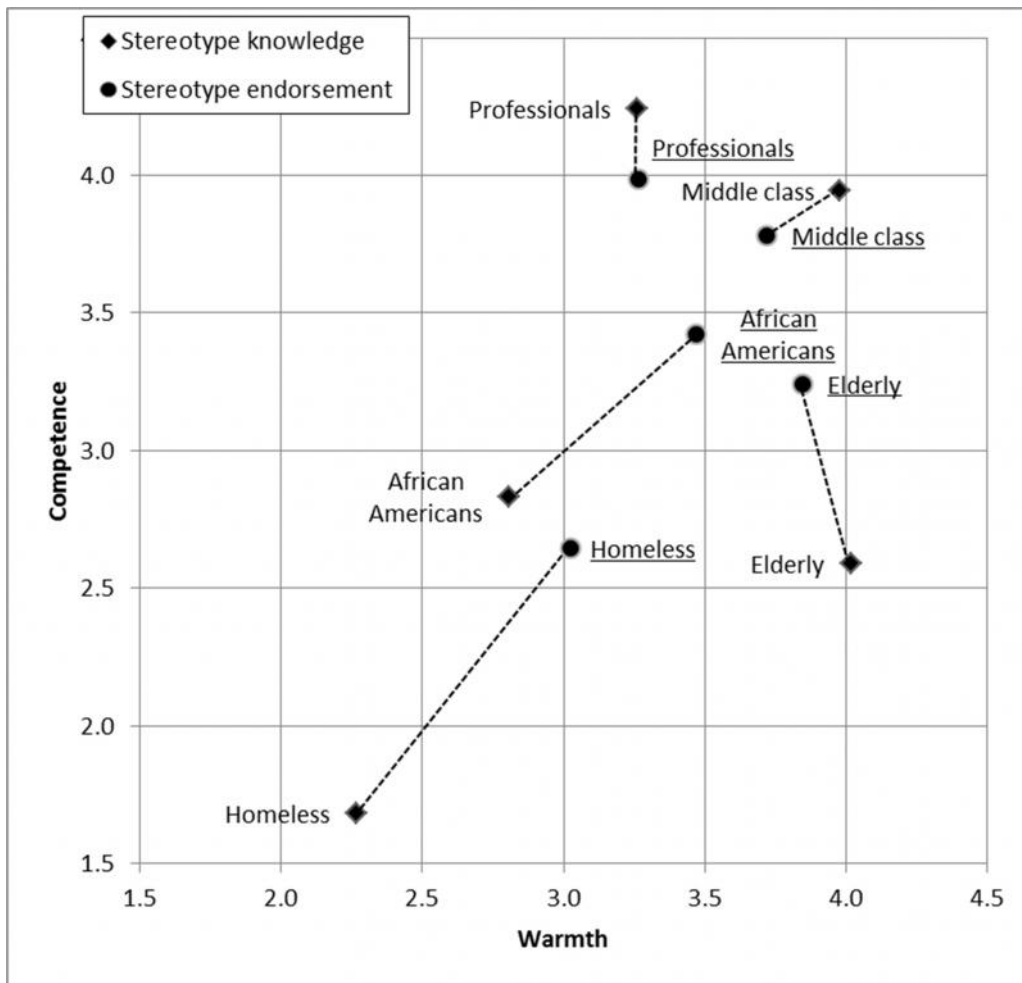


Figure 2. Effects of the stereotype knowledge vs. stereotype endorsement condition on the warmth and competence ratings of straight people, gay men, homeless people, professionals, the elderly, and Africans Americans (Study 2). The knowledge condition is indicated by diamonds, whereas the endorsement condition is indicated by circles. Mean scores for the same target group across the two conditions are connected with a dashed line.

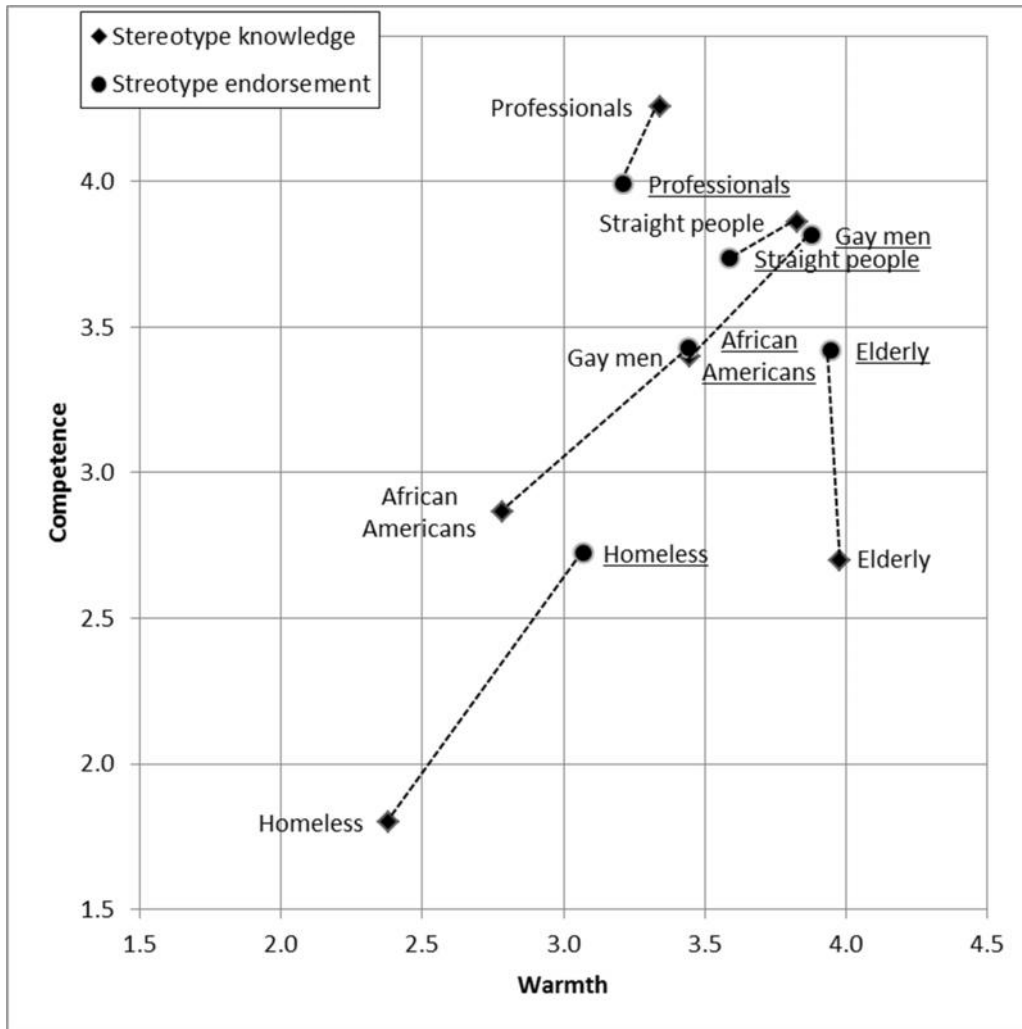


Figure 3. Interaction effects between the stereotype knowledge vs. stereotype endorsement condition and high vs. low motivation to control prejudice against the given target group on the warmth and competence ratings of straight people, gay men, homeless people, professionals, the elderly, and Africans Americans (Study 2). The knowledge condition is indicated by diamonds, whereas the endorsement condition is indicated by circles. Mean scores for the same target group across the two conditions are connected with a dashed line. Dashed circles indicate the spread of mean scores in the stereotype endorsement condition.

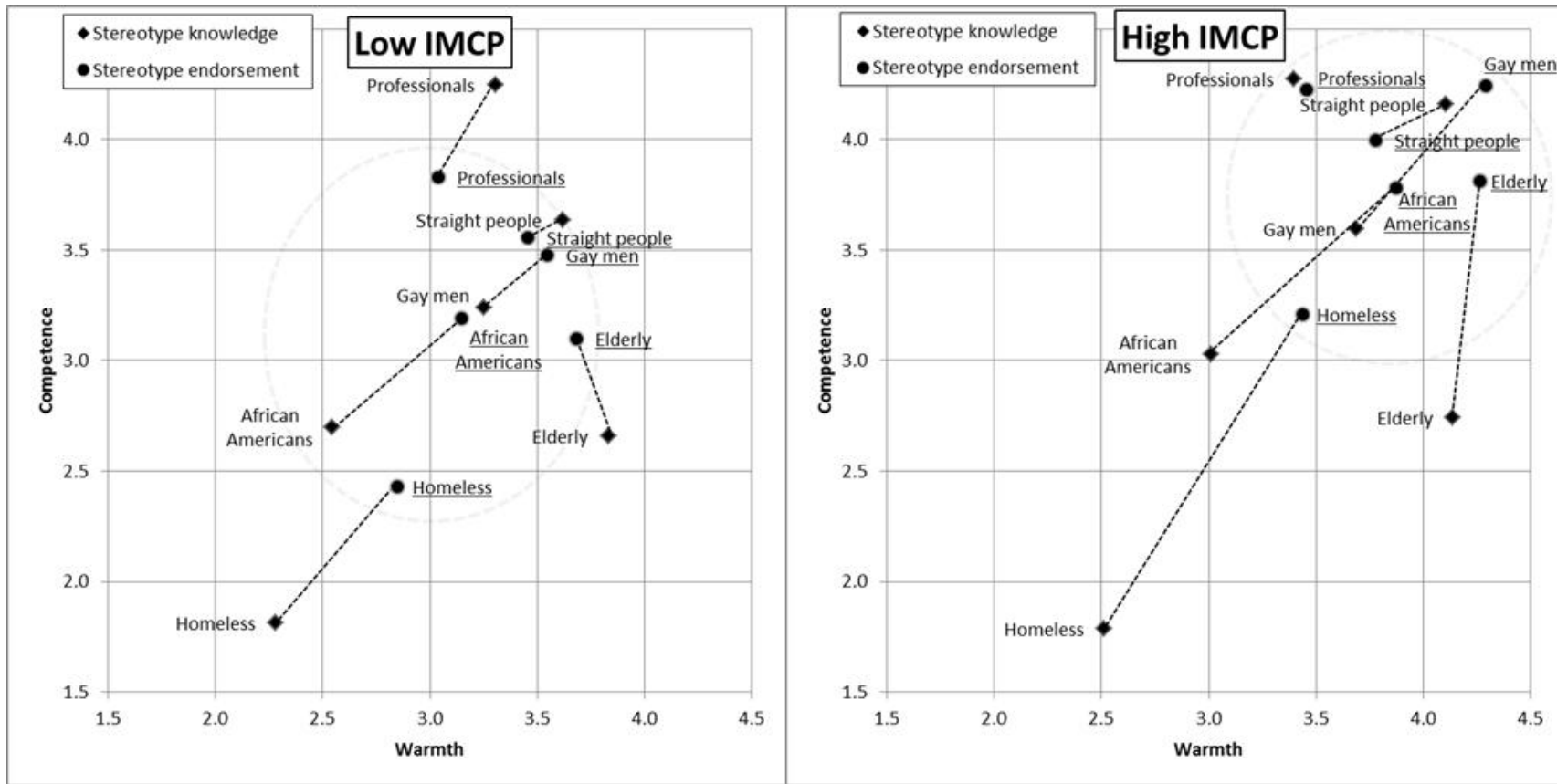


Figure 4. Expected values of external motivation to control prejudice (EMCP) and internal motivation to control prejudice (IMCP) by participant gender and target group (based on ML<sub>6</sub>). Error bars show standard errors of the mean. Dashed lines show the grand means of EMCP and IMCP across participant genders and target groups. When calculating expected values, all ideology variables were fixed to their means.

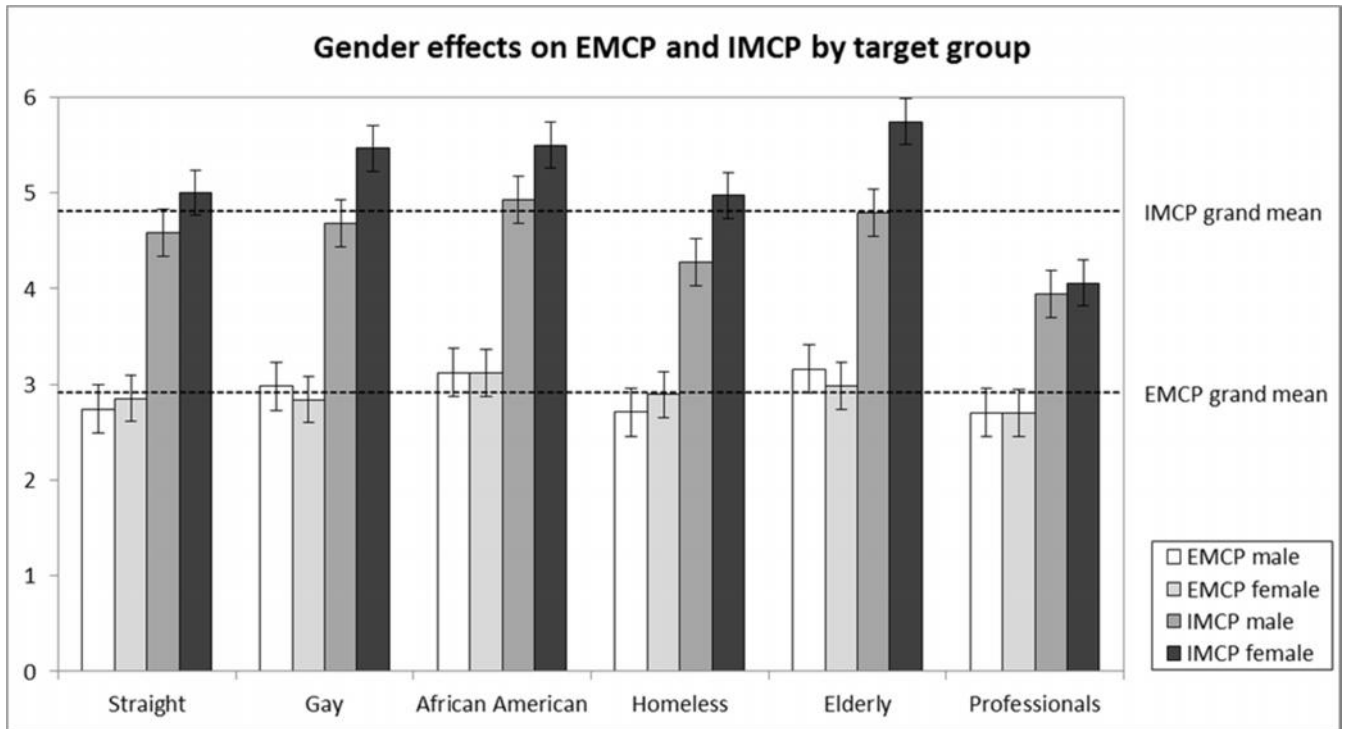




Figure 5. Expected values of external motivation to control prejudice (EMCP) and internal motivation to control prejudice (IMCP) by participant ideology and target group (based on ML<sub>6</sub>). Ideology was measured on a 7-point scale; however, for the sake of simplicity, expected values are reported for the far ends of the ideology scale only. Error bars show standard errors of the mean. Dashed lines show the grand means of EMCP and IMCP across participant ideology and target groups. Since the sample was perfectly balanced in terms of gender, the value of the gender variable was fixed to 0.5 when calculating the expected values.

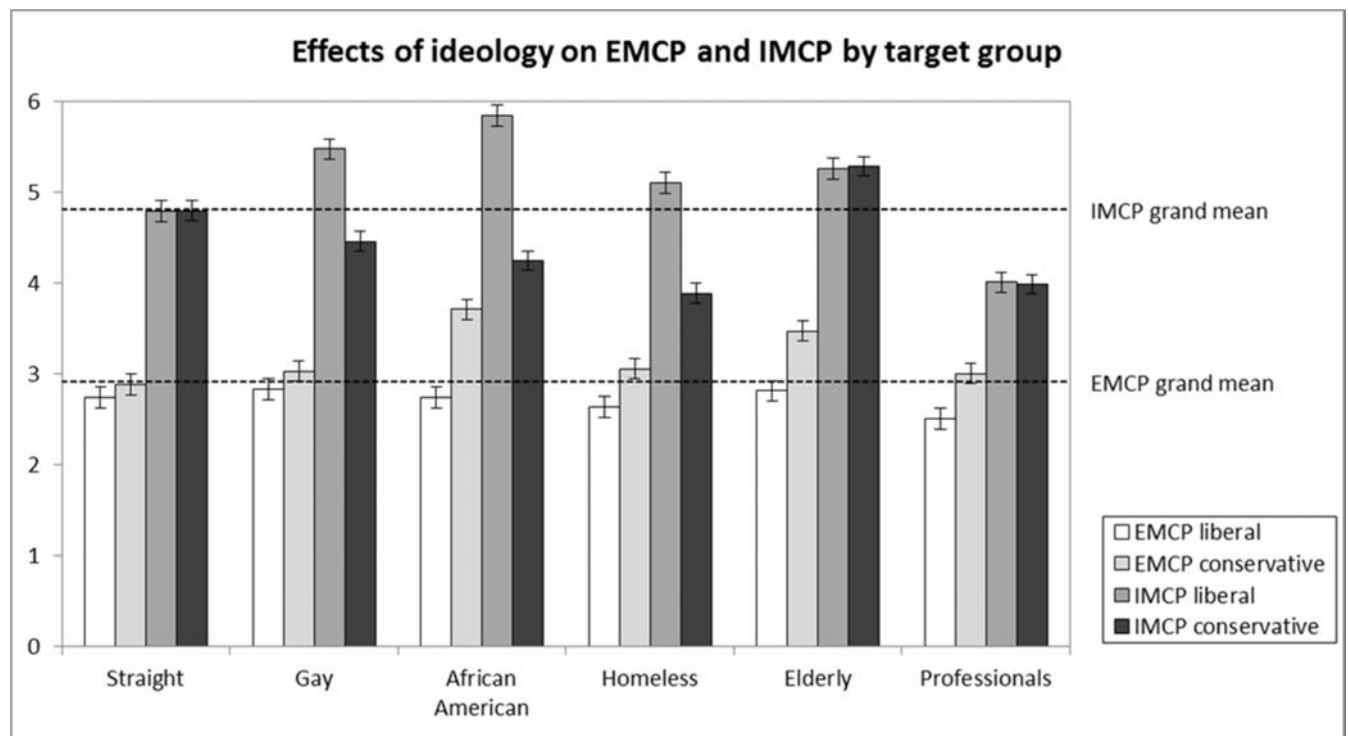


Figure 6. Expected values of external motivation to control prejudice (EMCP) and internal motivation to control prejudice (IMCP) by participants' level of social conservatism and target group (based on ML<sub>6</sub>). Social conservatism was measured on a 7-point scale; however, for the sake of simplicity, expected values are reported for the far ends of the social conservatism scale only. Error bars show standard errors of the mean. Dashed lines show the grand means of EMCP and IMCP across social conservatism levels and target groups. Since the sample was perfectly balanced in terms of gender, the value of the gender variable was fixed to 0.5 when calculating the expected values.

