**Conservatives Like Conservative Immigrants,
but They Would Prefer not to Live Close to Them.
A Partial Replication and Extension of Chambers et al. (2013).**

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Materials, data, and code of this manuscript are available at <https://osf.io/sj67c/>

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Abstract

Classical views on prejudice and ideology hold that a “prejudice gap” occurs such that conservatives are more prejudiced than liberals towards out-groups. This view has been recently challenged by studies showing the so-called value-conflict hypothesis. Chambers, Schlenker, and Collisson had found that sympathies/antipathies towards social groups might be situationally reversed when members of stereotypical liberal/conservative groups are presented as endorsing similar attitudes. In two studies we closely replicated Chambers and colleagues' findings from an Italian sample and found that both liberals and conservatives reported liking ideologically similar targets more than dissimilar targets, regardless of the target's nationality (e.g., immigrants/locals).

In a third study, we added an ecological measure assessing behavioral intentions towards out-groups (i.e., Bogardus Social Distance Scale). Our results show that, even if political similarity does play a role, self-reported political conservatism predicted greater social distance from ethnic minority groups (Immigrants) vs. ethnic majority groups (Italians).

Keywords: value-conflict hypothesis, conservatism, prejudice, social distance, political ideology.

Introduction

Seminal research on the relationship between personality and prejudice has emphasized that right-wing social attitudes (i.e., authoritarianism, social-dominance and system-justification) are deeply related to prejudice (Adorno, Frenkel-Brunswik, Levinson, & Sanford, 1950). The view that prejudice is a core feature of only socially conservative ideologies has remained unchallenged for a long time (see Sibley & Duckitt, 2008 for a review). More recently, empirical research has brought into question this idea that a "prejudice gap" – or an ideological asymmetry - between liberals and conservatives actually exists (Chambers, Schlenker, & Collisson, 2013). Since then, there has been growing evidence that in fact, liberals do have prejudicial attitudes as well (Crawford & Pilaski, 2014; Whetherell, Brandt & Reyna, 2013).

These findings seem to militate in favor of the so-called value-conflict hypothesis (Brandt et al., 2014), which according to its defenders is a derivation of the well-known similarity-liking principle (Byrne, 1971). The value-conflict hypothesis contends that people tend to prefer those who share their same ideological orientation and dislike those who do not (e.g., liberals like people with liberal attitudes whereas conservatives like people with conservative attitudes). Therefore, departing from previous accounts of prejudice, this theory predicts that conservatives would like conservative individuals from minority groups (e.g., conservative immigrants) more than they do liberal individuals from majority groups (e.g., liberal locals), whereas liberals would tend to like liberal individuals from majority groups more than they do conservative individuals from minority groups.

Preliminary evidence in favor of the value-conflict effect came from a recent study conducted in the U.S. (Chambers et al., 2013), which compared value conflicts with ideologically based stereotypes toward a list of common target groups. The study aimed at empirically assessing the

perceived ideology of different target groups as derived by national surveys and at understanding the influence of one's own ideology upon one's preferences for each group. The authors found that some groups are typically associated with liberal attitudes (e.g., gays and lesbians) or conservative attitudes (e.g., Catholics), with liberal participants expressing preference towards the former and conservatives towards the latter. However, Chambers and colleagues showed that ideologies of the target groups tended to influence impressions and preferences much more than the classification of the target groups in itself and that this prejudice was generalized both to liberals and conservatives. In short, members of liberal-linked target groups (i.e., usually associated with left-wing causes), who were depicted as endorsing conservative attitudes on specific political issues (e.g., an African-American opposing abortion), were unexpectedly seen more favorably by conservatives and less favorably by liberals. Conversely, conservative-linked target groups (i.e., associated with right-wing values), who were depicted as endorsing liberal attitudes on specific political issues (e.g., a European-American in favor of wealth redistribution), were seen more favorably by liberals but less favorably by conservatives. This made the authors conclude that "prejudice is not the province of only one side of the political spectrum" (Chambers et al., 2013, p. 8).

Although these results look compelling at a first sight, it is not clear whether they are representative only of the U.S., from which the sample was drawn, especially considering the increasing political polarization in the United States for at least the previous ten years (Iyengar, Sood & Lelkes, 2012).

Furthermore, a possible limitation of these findings might rest on the fact that the only outcome variable that this study tested was the self-reported liking rating. However, perceived like/dislike might be a very superficial measure, considering the renowned gap that exists between attitudes

and behavior (LaPiere, 1934). A more reliable assessment of prejudice would result from other measures apt to detect, if not overt discriminatory behavior, at least behavioral intentions such as social distance (Bogardus, 1933), a dimension that has been previously used to study political polarization (Iyengar, Sood & Lelkes, 2012) and to test the value-conflict hypothesis (Crawford et al., 2017).

Social distance is a notion derived from sociology and extensively used in social psychology, which describes one's subjective reluctance or resistance to socio-affective assimilation with specific persons or groups. The concept was theorized by the sociologist Georg Simmel, in a more physical sense, and then converted into a more metaphorical nuance by Robert Park (1924), so as to characterize degrees of intimacy for personal and social relationships (Ethington, 1997). The assessment to measure perceived distance attitudes towards racial groups still in use today (for instance, by Crawford et al., 2017), the Social Distance Scale, was introduced by Emory Bogardus in the early 1930s (see Bogardus, 1933). On this scale, social distance indicates respondents' "willingness to engage in contact of varying degrees of social closeness with members of a particular racial or ethnic group" (Xiao and Van Bavel, 2012, p. 969).

According to the dual-process model (Duckitt, 2001), conservatives are typically the ones who endorse more conventional values and attitudes and/or views of social dominance. Therefore, if prejudice is triggered (also) by such ideologically induced motives, conservatives might be unwilling to socially approach individuals from groups who are stereotypically identified as deviant/threatening, at a lower social status and/or from minority groups.

In the present research, we aimed at replicating – in a different national context (i.e., Italy) - the findings from Chambers and colleagues on the relationship between sympathy/antipathy towards outgroups and ideological similarity (Study 1), as well as on how an experimentally-induced

increase/decrease in ideological similarity (Study 2) might influence the antipathy/sympathy trends previously observed in Study 1.

Study 3 was set to investigate whether the effect found in Study 2 would hold when a specific measure for behavioral intentions (i.e., social distance) was introduced in place of a simply evaluative measure.

Since ideologies differ in their motivational underpinnings (Duckitt, 2001), we hypothesized that, when using a measurement that more directly addresses the participants' motivations to approach/avoid specific target groups in an experimentally controlled setting, an ideologically oriented gap about prejudice could still be observed.

Material and Methods

Study 1

The aim of Study 1 was to replicate the results from Study 1 of Chambers, Schlenker and Collisson (2013) on an Italian sample. In Chambers et al. (2013), the authors found that conservatives displayed more prejudice against liberal social groups, whereas liberals displayed more prejudice against conservative social groups.

Although some groups used in the Italian version are the same as in the original study (e.g., feminists, atheists), we excluded some groups that are not suitable for the Italian socio-political context. In particular, we decided to exclude the following target groups from those used by Chambers, Schlenker and Collisson. (2013): Civil-rights leaders, Black militants, Chicanos-Hispanics, Protestants, Christian fundamentalists, Republicans. We replaced Asian-Americans with "Chinese people" in our Italian sample and included the group in the liberal list. Furthermore, we added Jewish people, Islamic Fundamentalists and Romani-Gypsies (ROM) as

they are significant target groups in the Italian context (Pew Research Center, 2014, Villano et al., 2017).

Although in Study 1 Chambers, Schlenker and Collisson used three different samples (a Mechanical Turk sample, a College sample and a nationally representative sample), we collected our data only from a web sample, similar to their MTurk sample, through CrowdFlower (CF). CF is a crowdsourcing platform that shares many features with Amazon Mechanical Turk (MTurk) but has shown a more diverse distribution compared to MTurk (Peer, Brandimarte, Samat & Acquisti, 2017), and so it allows the user to reach European samples, Italians included. The decision was motivated by the observation that results from Chambers, Schlenker and Collisson were overall the same across the three samples and, in fact, resources crowdsourced from MTurk samples have been shown to be more diverse and representative than common convenience samples typically used in psychological research (Buhrmester et al. 2011). Most importantly, for the present study, crowdsourcing based studies have been shown to be a valid tool for research on political ideology (Clifford, Jewell and Waggoner, 2015).

Given the high effect sizes (ESs) of Study 1 of the Chambers, Schlenker and Collisson study, we determined the sample size needed for the first study on the basis of a power analysis ($1-\beta = .80$). Specifically, we computed the a-priori power for two unpaired t-test assuming the smallest ES reported for the comparison between impression ratings expressed by liberal participants towards liberal-linked/conservative-linked groups and the ratings expressed by conservative participants towards liberal-linked/conservative-linked groups (Cohen's $D = 0.57$). The alpha level was Bonferroni corrected for two comparisons ($\alpha = .025$). The estimated sample size resulted in an $N = 60$. To this purpose, we launched an online survey on July 9, 2015. The survey was built on SurveyMonkey (a PDF version is available on the Open Science Framework repository linked to

this study: https://osf.io/ebk2j/?view_only=a8dd0523f90d42cf95e09613253900e1). A total of 79 participants accessed the survey on Crowdfunder but five of them did not finish it. Participants were paid €0.50 for their participation and awarded with a bonus of €0.50 for completing the survey (for a total amount of €1). Thirteen participants failed to respond to the control question ("To prove that you are reading carefully, please check the below box "Other" and write "I read it" on it). Participants who failed to respond were held unreliable and were excluded from compensation and analyses. Another subject was discarded from the analyses for not being of Italian nationality. A final sample of 61 Italian-speakers (29F; mean age = 36.62 ± 11.41) completed our survey.

The survey was structured as follows. Participants self-reported their ideological position on a 7-point Likert-type scale (from 1 = radical left-wing, to 7 = radical right-wing) or were, alternatively, also given the chance to describe themselves as "apolitical". In that case, the response was coded as a missing cell and thus the participants who opted for "apolitical" were not considered when analyzing the effects of participants' ideology. Notably, we used the expressions "left-wing" and "right-wing" to indicate liberal and conservative orientations since in the Italian socio-political context the liberal/conservative distinction does not correspond to the US connotations of those terms and might generate conceptual confusion.

Then, participants rated the perceived ideological position (from 1 = radical left-wing, to 5 = radical right-wing) and their overall impression (from 1 = strongly dislike, to 5 = strongly like) of 35 target groups (see Table 1) presented in randomized order. Because of an error during the survey set-up, the perceived impression ratings were collected for only 30 of these groups (leaving aside the possibility of collecting impressions for 5 target groups initially included in the

study: Neo-catechumenal adepts, Filipinos, Peruvians-Ecuadorians, North-Africans, Drug addicts).

Participants also completed individual difference measures of Italian translations of four different assessments such as system justification (Kay and Jost, 2003), symbolic racism (Henry and Sears, 2002), right-wing authoritarianism (Altemeyer, 1981), and social dominance orientation (Pratto et al., 1994). Moreover, participants provided answers to demographic questions (i.e., age, gender, nationality, and parents' nationality).

The overall order of the ratings was fully randomized across participants.

Results and discussion

	Average rating of the target group's ideology	SD	Correlation between participants' ideology and target group ideology	BF ₁₀	BF ₀₁
Communists	1.37	0.69	-0.06	0.31	3.23
Left-wingers	1.49	0.65	0.03	0.29	3.45
Environmentalists	2.05	0.85	-0.12	0.38	2.63
Unionists	2.11	1	-0.19	0.58	1.72
Gays and Lesbians	2.18	0.87	-0.28	1.43	0.7
Feminists	2.24	0.93	-0.09	0.34	2.94
Poor people	2.36	0.8	-0.06	0.3	3.33
Welfare-recipients	2.38	0.92	0.14	0.41	2.44
Atheists	2.39	0.99	0.03	0.29	3.45
Chinese people	2.39	0.82	-0.03	0.29	3.45
Illegal aliens	2.49	0.81	-0.40	10.16	0.1
Radicals	2.5	1.08	-0.15	0.44	2.27
Romani gypsies	2.51	0.98	-0.45	30.82	0.03

	Average rating of the target group's ideology	SD	Correlation between participants' ideology and target group ideology	BF ₁₀	BF ₀₁
Democrats	2.56	0.74	0.08	0.32	3.12
People with AIDS	2.59	0.67	-0.1	0.34	2.94
Young people	2.66	0.85	-0.04	0.29	3.45
Sub-Saharan Africans	2.77	0.79	-0.25	0.96	1.04
Women	2.97	0.63	0.25	1.03	0.97
Jews	3.07	0.87	0.07	0.31	3.23
Old people	3.08	0.95	-0.18	0.55	1.82
Whites	3.11	0.71	0.02	0.28	3.57
Men	3.13	0.69	0.21	0.69	1.45
Middle class people	3.27	0.97	-0.12	0.38	2.63
Radical Muslims	3.32	1.26	-0.28	1.41	0.71
Catholics	3.44	0.92	0.02	0.29	3.45
Anti-abortionists	3.63	1.22	-0.2	0.62	1.61
Military	3.92	0.94	0.09	0.33	3.03
Business men	3.95	0.88	0.08	0.32	3.12
Rich people	3.97	0.97	-0.07	0.31	3.23
Right-wing people	4.44	0.81	0.04	0.29	3.45

Table 1. Study 1: Averaged Ideology Ratings of the Target Groups, Correlation coefficients of the relationship between Ideology Ratings of the Target Groups and the Participants' self-reported Ideology; Bayes Factor in favor of the presence (BF₁₀) or the absence (BF₀₁) of the correlation between the two variables. **Boldfaced:** Substantial to decisive evidence (BFs > 3).

Table 1 presents the perceived ideology ratings of all target groups. Unlike in the original study, where the authors divided the participants into two categorical groups, in our analyses we treated ideology as a quantitative variable. This choice was due to the evidence that categorizing variables causes the loss of valuable information (Young, 2016). We then reported the

correlation between the participants' self-reported ideology and the perceived group ideology. In order to further test our main hypothesis within a framework that allows reporting evidence in favor of the absence of an effect (Dienes, 2016), we tested our hypothesis within a Bayesian hypothesis-testing framework provided by the Bayes Factor (BF, Morey and Rouder, 2011; Wagenmakers et al. 2017). Moreover, Table 1 reports the amount of evidence in favor of the alternative hypothesis (BF_{10} , the presence of a correlation between participants' self-reported ideology and perceived group ideology) or in favor of the null hypothesis (BF_{01} , the absence of a correlation between participants' self-reported ideology and perceived group ideology). In contrast to the original study we found that, at least for two groups (Romani Gypsies and Illegal immigrants, 6.7% of the total number of groups) there is strong evidence ($BF_{10} > 10$, see Jeffreys, 1961) in favor of a negative correlation ($r_s < -.40$) between the participants' ideology and the ideology attributed to these target groups. In other words, we found that right-wing (or left-wing) leaning participants tend to perceive these groups as more left-wing (or right-wing). It is worth noting that for many groups ($N = 14$, 46.7%) there is moderate ($3 < BF_{01} < 4$) evidence in favor of the absence of a correlation. However, for the remaining groups ($N = 12$, 40%), the evidence is inconclusive ($0.33 < BF_{01} < 3$).

We tested the effect that target groups' perceived ideology moderates the relationship between participants' ideology and their impression ratings toward the target groups. Unlike the original study, we did not average impression ratings across groups, considering that a categorical differentiation between conservative and liberal groups merely based on the scale midpoint appears arbitrary and causes loss of important information (Young, 2016).

We decided to test the effect through a multilevel Bayesian model where we tested the interaction between participants' ideology and perceived target group ideology in determining

participants' impression ratings. In order to avoid an anti-conservative bias in our tests (Barr et al., 2013), we modeled the random slopes of the interaction for each group. We found decisive evidence for the model with the interaction against the model that included only the main effects ($BF_{10} > 1,000$).

Table 2 shows why this effect occurs: the more a group is perceived as conservative/liberal, the stronger is the positive/negative correlation between participants' self-reported ideology and target groups impression ratings. To further clarify this effect, we plotted the Pearson's r coefficients for the relationship between Participants' self-reported Ideology and Target Groups Impression ratings against the Target Groups Perceived Ideology. From the plot, it is clear that a Value-Conflict Effect occurs. That is, for example, the more a given target group is perceived as right-wing, the more this group is liked by the right-wing participants as a function of their own right-wing ideology.

	Average rating of the target group's ideology	Average target group impression ratings	SD	Correlation between participants' ideology and target group Impression ratings	BF_{10}	BF_{01} ($1/BF_{10}$)
Communists	1.37	2.8	1.1	-0.63	8942.89	0
Left-wingers	1.49	3.13	1.12	-0.67	94978.36	0
Environmentalists	2.05	3.57	1.07	-0.5	126.94	0.01
Unionists	2.11	2.72	0.95	-0.44	25.18	0.04
Gays and Lesbians	2.18	3.1	1	-0.41	12.58	0.08
Feminists	2.24	2.95	1.13	-0.31	2.12	0.47
Poor people	2.36	3.34	0.81	-0.28	1.49	0.67
Welfare-recipients	2.38	3.13	0.81	-0.24	0.96	1.04
Atheists	2.39	3.33	1.09	-0.41	12.29	0.08
Chinese people	2.39	2.87	0.9	-0.19	0.61	1.64

	Average rating of the target group's ideology	Average target group impression ratings	SD	Correlation between participants' ideology and target group Impression ratings	BF ₁₀	BF ₀₁ (1/BF ₁₀)
Illegal aliens	2.49	2.43	1.01	-0.47	44.46	0.02
Radicals	2.5	2.67	0.95	-0.4	8.97	0.11
Romani gypsies	2.51	2.1	0.83	-0.38	7.01	0.14
Democrats	2.56	3.26	0.95	-0.35	4.09	0.24
People with AIDS	2.59	2.85	0.85	-0.32	2.63	0.38
Young people	2.66	3.69	0.89	-0.1	0.35	2.86
Sub-Saharan Africans	2.77	2.98	0.93	-0.54	351.59	0
Women	2.97	3.85	0.89	0.02	0.29	3.45
Jews	3.07	3.23	0.9	-0.31	2.13	0.47
Old people	3.08	3.61	0.94	-0.21	0.7	1.43
Whites	3.11	3.46	0.74	0.12	0.37	2.7
Men	3.13	3.46	0.81	-0.12	0.38	2.63
Middle class people	3.27	3	0.84	-0.06	0.3	3.33
Radical Muslims	3.32	1.59	1.04	-0.1	0.35	2.86
Catholics	3.44	3.15	1.12	-0.05	0.29	3.45
Anti-abortionists	3.63	2.31	1.16	0.09	0.34	2.94
Military	3.92	3.05	1.01	0.31	2.11	0.47
Business men	3.95	3.03	0.8	0.1	0.35	2.86
Rich people	3.97	2.78	0.8	-0.17	0.5	2
Right-wing people	4.44	2.75	1.16	0.71	861559.23	0

Table 2. Study 1: Averaged Ideology Ratings of the Target Groups, Averaged Impression Ratings of the Target Groups, Correlation coefficients of the relationship between Impression Ratings of the Target Groups and the Participants' self-reported Ideology; Bayes Factor in favor of the presence (BF₁₀) or the absence (BF₀₁) of the correlation between the two variables. **Boldfaced:** substantial to decisive evidence (BFs > 3).

Figure 1. Value-conflict effect. The scatterplot shows the relationship between the correlation coefficient for the correlation between Participants' Ideology and Target Groups Impression ratings and the Perceived Target Groups' Ideology ($r = .87$).

We estimated the Pearson's r coefficient for the relationship between the Perceived Target Groups' Ideology and Target Groups Impression ratings in each participant. Then, we correlated it with system justification, social-dominance orientation, symbolic racism, or right-wing authoritarianism results (Table 3). Bayes Factors were estimated through the free-software JASP (2016), using default prior (width = 1) on the alternative hypothesis regarding the parameter ρ . We chose this approach because it allows comparing the relative strength of evidence in favor of competing hypotheses (i.e., $H_0: \rho = 0$ vs. $H_1: \rho \neq 0$). As in the original study, we found that higher scores on these measures of social conservatism were associated with less favorable

impressions of (i.e., higher prejudice toward) left-wing groups and more favorable impressions of (i.e., lower prejudice toward) right-wing groups.

		IDEO	SJ	SR	RWA	SDO	Corr-Ideo
IDEO	Pearson's r	—	0.26	0.31	0.352	0.17	0.46
	BF ₁₀	—	1.188	3.01	6.93	0.39	124.26
SJ	Pearson's r		—	0.489	0.308	0.59	0.43
	BF ₁₀		—	392.87	2.77	35573.92	43.72
SR	Pearson's r			—	0.64	0.47	0.54
	BF ₁₀			—	426696.03	215.47	1978.71
RWA	Pearson's r				—	0.38	0.56
	BF ₁₀				—	15.33	4432.57
SDO	Pearson's r					—	0.46
	BF ₁₀					—	122.44

Table 3. Bayesian Correlation Matrix of the relationship Among Ideology, Individual Difference Measures, and Impressions of Conservative vs. Liberal groups. IDEO: Participants' Self-Reported Ideology (right-wing); SJ: System-Justification; SR: Symbolic Racism; SDO: Social Dominance Orientation; CorrIdeo: Correlation between Target Groups' perceived Ideology (right-wing) and Target Groups' Impression Ratings (like). **Boldfaced:** relationship whose BF₁₀ > 3.

Overall, impression differences in participants' ideology were strongly related to the target group perceived ideology.

In summary, our findings strongly support the value-conflict hypothesis, although it is not clear whether this might be due to an assimilation-contrast effect. For instance, it appears that some groups are perceived as members of the opposite ideology when they are not liked, rather than

vice versa.

Study 2

In Study 2, we sought to replicate and extend the second study from Chambers, Schlenker and Collisson. Since naturally occurring groups may differ in many uncontrolled dimensions, here we experimentally manipulated the similarity between the outgroup members' perceived ideology and the participants' ideology. We examined conservatives and liberals' attitudes towards target individuals whose nationality (Italian *vs.* Immigrant) or sexual orientation (Gay *vs.* Straight) and political ideology (Right-wing *vs.* Left-wing) were manipulated independently. In particular, we tested whether, for instance, right-wingers would like conservative immigrants and conservative gay people more than liberal Italians and liberal straight people. In contrast to the original study, we chose to add a sexual orientation condition (Gay/Straight) to increase the validity of the study, since we had found that perception of immigrants' ideology could be driven by assimilation-contrast processes.

Method

Given the high effect sizes (ESs) of the Study 2 in Chambers, Schlenker and Collisson (2013), we determined the sample size needed for our second study on the basis of a power analysis ($1-\beta = .80$) for 12 unpaired t-tests, assuming the smallest ES reported for Study 2 in the original article (Cohen's $D = 1.12$). The alpha level was Bonferroni corrected for twelve comparisons ($\alpha = .004$). The estimated sample size resulted in $N = 24$. Since this number would not grant a reliable estimate, we aimed at $N = 80$ in order to have at least 10 observations per parameter (Field, 2009).

To this purpose, we launched the survey on October 14, 2015 on CrowdFlower. The survey had been built on SurveyMonkey (a PDF version of the survey is available on the Open Science Framework repository linked to this study: https://osf.io/ebk2j/?view_only=a8dd0523f90d42cf95e09613253900e1). Again, participants were paid €0.50 for their participation and awarded with a bonus of €0.50 for completing the survey (for a total amount of €1). A total of 74 participants accessed the survey, although five of them did not finish the survey and were therefore discarded from the analyses. Fifteen participants failed to respond to the control question ("To prove that you are reading carefully, please check the below box "Other" and write "I read it" on it) and were thus discarded from the analyses for being unreliable. One participant was excluded from the analyses because they reported having a nationality other than Italian and seven other participants were excluded for reporting a sexual orientation other than exclusively heterosexual. We excluded those participants to ensure that Immigrants and Gay people could be perceived as out-group members by the whole sample. A final sample of 51 Italian-speaking participants (24F; mean age = 33.45 ± 8.8) took part in our online survey.

Participants expressed their impressions (from 1 = *strongly negative*, to 5 = *strongly positive*) toward target persons, who varied either in nationality (*Immigrant/Italian*) or in sexual orientation (*Gay/Straight*), and in ideological position (*right-wing/left-wing*) on six political issues that resembled the six present in Chambers, Schlenker and Collisson's Study 2. The issues were: healthcare privatization, gender equality, legalized abortion, wealth redistribution, child adoption by gay couples, and favorable immigration policies. For example, participants were asked to rate their impression of an immigrant against healthcare privatization (liberal immigrant), or a gay person against legalized abortion (conservative homosexual), or an Italian

in favor of gender equality (liberal Italian), or a heterosexual against legalized abortion (conservative heterosexual), and so on. There were 48 combinations between the four kinds of target persons and attitudes about all the six political issues in total.

Then, participants completed additional measures of social conservatism: system justification (Kay and Jost, 2003), symbolic racism towards immigrants (Pikes, 2011), and modern homophobia scale (Raja & Stokes, 1998). We also added a version of the MacArthur Scale of Subjective Social Status (Adler, Epel, Castellazzo, & Ickovics, 2000) in which participants had to place 4 target groups (immigrant, Italian, Gay, Straight) on the 10 steps of a ladder from the lowest to the highest step according to three different dimensions (political power, cultural hegemony, and economic status). The Mac Arthur Scale was included in order to better assess the participants' perceptions of these target persons' social status.

Results and discussion

We performed a Bayesian Linear Multilevel Model (BLMM), through the *BayesFactor* package (Morey and Rouder, 2015). Unlike traditional statistical models, Multilevel Models are suitable for: i) analyzing hierarchical data structures; ii) analyzing the whole data set to better evaluate the variations of data usually left out in ANOVA-style analyses; iii) accounting for the non-independence of observations with correlated errors; iv) separating the effects caused by the experimental manipulation (fixed effects) and the effects that were not (random effects; see Pinheiro et al., 2000). This method was thus a suitable approach to analyze our data in order not to discard the information about the variance related to measurement error.

We performed an analysis that is conceptually equivalent to the one described by Chambers, Schlenker and Collisson in their study. Impression ratings were therefore submitted to 2 (target's

group: ingroup vs. outgroup) x 2 (target's attitudes: left-wing vs. right-wing) BLMM. In contrast to the original study – but similarly to our Study 1 - we modeled participants' ideology as a quantitative variable instead of a categorical, binary one.

We set the random slopes for the effect of the group (ingroup vs. outgroup) and of the political attributes (left-wing vs. right-wing) on each participant and on each item in order to control the anti-conservativeness of our analysis (Barr et al., 2013).

We found decisive evidence for the model that included the interaction between the targets' political attributes and participants' self-reported ideology ($BF_{10} = 586$) as compared to the model with only the main effects. On the other hand, the comparison with the model that included the interaction between participants' self-reported ideology and group (Ingroup vs. Outgroup), led to inconclusive evidence ($BF_{01} = 1.17$). Adding other interactions did not lead to models that provided better evidence ($BF_{S01} > 47$).

An inspection of the parameters' posterior distributions (10,000 iterations) revealed a strong effect of the interaction between the targets' political attributes and participants' self-reported ideology (see Figure 2). Indeed, the slope for the relationship between participants' self-reported conservatism and impression was consistently higher with conservative targets than with liberal ones (mean unstandardized B coefficient difference = 0.43, 95% High Posterior Density Intervals (HPDI) = [0.22, 0.63]), a result consistent with what was found in Study 1.

Figure 2. Value-conflict effect in Study 2. The scatterplot shows the relationship between Participants' ideology (conservatism) and impression ratings towards members of groups portrayed as holding either left-wing attitudes (left panel) or right-wing (right panel) regardless of their ethnic or sexual categorization. The slopes and the shades represent the mean values and the 95% credibility intervals sampled from the posterior distribution (iterations = 10000), respectively.

Overall, we found decisive evidence in favor of the value-conflict hypothesis, as in Chambers, Schlenker and Collisson's Study 2 and 3 (2013), although it is not clear if a parallel asymmetric ideology effect (i.e., conservatives are more biased towards outgroups regardless of their ideology) could have occurred.

Since we used two different kinds of groups, one identified by national identification (Italians vs. Immigrants) and another by sexual orientation (Straight vs. Gay), and since we had found in our Study 1 that the perceived ideology of immigrants could be a function of the participants' ideology, we tried to test whether the specific domain (national vs. sexual) played a role.

We found much more evidence in favor of the simpler version of the value-conflict model than the more complex models ($BF_{s01} > 3.75$), meaning that including the domain in the model did not explain our results better. In brief, our results can be generalized to different domains, and so

possible assimilation-contrast effects observed in our Study 1 do not seem to hamper the conclusions that can be driven by both the original and the current replication study according to which a value-conflict effect exists.

The MacArthur Scale was used to test whether the domain effect could be due to perception of social status. However, since it does not appear there is any domain effect, we did not conduct this further analysis.

Given the high correlation between self-reported ideology and the other measures used to assess individual differences in ideological attitudes (see Table 4), we standardized all the variables and computed an overall ideology score. The model selection provides similar results as before, thus ensuring that the poor reliability provided by a single item measure of political ideology could not explain the whole set of results.

Bayesian Pearson Correlations					
			MHS	SR	SJ
IDEO		Pearson's <i>r</i>	0.34	0.52	0.43
		BF ₁₀	3.24	322.28	22.35
MHS		Pearson's <i>r</i>	—	0.45	0.48
		BF ₁₀	—	39.12	74.40
SR		Pearson's <i>r</i>		—	0.44
		BF ₁₀		—	29.22

Table 4. Bayesian Correlation Matrix of the relationship Among Ideology, Individual Difference Measures, and Impressions of Conservative vs. Liberal groups. IDEO: Participants' Self-Reported Ideology (right-wing); SJ: System-Justification; SR: Symbolic Racism; MHS: Modern Homophobia Scale. **Boldfaced:** relationship whose BF_{S10} > 3.

Study 3

In studies 1 and 2 we found support for the value-conflict hypothesis (Chambers et al., 2013, Brandt et al., 2014). The dependent variable used in these studies was an overall impression

rating on the target groups. Nevertheless, seminal research in social psychology has shown that the relationship between attitudes and behavior is far from being straightforward (La Piere, 1934; Wicker, 1969 for a review). Although it is hard to measure real discrimination behavior in this context, we decided to use another attitudinal measure, the Social Distance Scale (SDS, Bogardus, 1925, 1933), which measures participants' behavioral intentions towards members of particular racial or ethnic groups in terms of approaching or avoiding them socially (Xiao and Van Bavel, 2012). Thus, to some extent, the SDS can be seen, and has been used as, a measure of behavioral intentions towards out-groups (Crawford et al., 2017). We speculated that such a measure would be a better tool to corroborate the value-conflict hypothesis or, alternatively, to find support for a *prejudice gap* when we move a step from attitudes to behaviors.

Methods

To this purpose, we launched a new survey on November 12, 2015. The third survey was again built on SurveyMonkey (a PDF version of the survey is available on the Open Science Framework repository linked to this study: https://osf.io/ebk2j/?view_only=a8dd0523f90d42cf95e09613253900e1). The a-priori sample size determination followed the same logic as in Study 2. Participants were again recruited through CrowdFlower and paid €0.50 for their participation and awarded with a bonus of €0.50 for completing the survey (for a total amount of 1€). A total of 82 participants accessed the survey but two of them did not finish the survey. Fourteen participants failed to respond to the control question ("To prove that you are reading carefully, please check the below box "Other" and write: "I read it" on it) and they were thus discarded by the analyses for being unreliable. Four participants were excluded for not being of Italian ethnicity, and this was done to ensure that

Immigrants were perceived as out-group by the whole sample. A final sample of 62 Italian-speaking participants (32F; mean age = 36.16 ± 10.39) took part in our online survey

We chose to exclude the sexual domain condition because in Study 2 it did not appear to play a role different from the nationality condition (Immigrant/Italian), as we did not find evidence for a moderation role for this variable. We selected from Study 2 the two most significant issue items (Attitudes towards immigration, and Attitudes towards adoption by gay couples) and one issue that represents more the economic dimension of Ideology (Attitudes towards the privatization of the healthcare system). As in our Study 2, we decided to specify the “social welfare” issue in Chambers and colleagues (2013) with the expression “healthcare system privatization”, which is more salient in the Italian context, and we added the issue “favorable policies towards immigrants” (or literally hospitality towards new immigrants, “*accoglienza di nuovi immigrati*”). Therefore, we kept three issues from our previous study: healthcare privatization (the only one reversed, *in favor*: conservative position vs. *against*: liberal position), gay adoption (*in favor*: liberal position vs. *against*: conservative position), hospitality towards new immigrants (*in favor*: liberal position vs. *against*: conservative position).

We thus obtained 12 hypothetical target individuals varying in ideological positions towards these three issues (2x2x3): Immigrant/Italian, in favor of/against health privatization, gay adoption, and hospitality towards new immigrants. To test social distance we chose 4 items from Crandall (1991), which is an adapted version of the Bogardus Social Distance Scale (Bogardus, 1933). Participants had to register to what degree they would have liked each of the 12 target persons: as a friend, to marry his/her daughter/son, as a work colleague, or as a neighbor.

As additional measures of social conservatism, we decided to keep the version of MacArthur Scale we used in Study 2 and to include Italian translations of system justification (Kay and Jost, 2003) as well as symbolic racism towards immigrants (Pikes, 2011) from our Study 2.

Results and discussion

Similarly to Study 2, we performed a Bayesian Multilevel Model, through the *BayesFactor* package (Morey and Rouder, 2015) on the averaged Social Distance score (SDS) for each target person.

We performed the same analysis as in Study 2, but without exploring the model that included the moderation role for the dimension, because we dropped this factor from the experimental design in Study 3.

Given the low number of item types (3: health privatization, gay adoption, hospitality towards new immigrants), we averaged the SDS scores across the types. Higher SDS reflects closeness, in regard to more favorable attitudes, to the results more coherent with the ones reported in Study 1.

We set random slopes for the effect of the group (Ingroup *vs.* Outgroup) and of the political attributes (left-wing *vs.* right-wing) on each participant, also in order to control the anti-conservativeness of our analysis (Barr *et al.*, 2013).

We found decisive evidence in favor of the model that included the interaction between the targets' political attributes and the participants' self-reported ideology ($BF_{10} = 2163$) as compared to the model that included only the main effects of these two factors. However, we found even more evidence in favor of the model that included the interaction between participants' self-reported ideology and the national group condition as compared to the model

that included only the interaction between the targets' political attributes and participants' self-reported ideology ($BF_{10} = 509.24$). Adding other interactions did not lead to models that resulted in better evidence ($BF_{s01} > 4$).

An inspection of the parameters' posterior distributions revealed a strong effect for both interactions (see Figure 3).

Figure 3. Prejudice gap effect in Study 3. The scatterplot shows the relationship between Participants' ideology (conservatism) social closeness ratings towards immigrants (left panel) and Italians (right panel). The slopes and the shades represent the mean values and the 95% credibility intervals sampled from the posterior distribution (iterations = 10000), respectively.

Indeed, the slope for the relationship between participants' self-reported conservatism and social closeness was consistently higher with conservative targets than with liberal ones (mean unstandardized B coefficient difference = 0.71, 95% HPDI = [0.40, 1.04]), a result consistent with what was found in Study 2. Importantly, a similar pattern was found for the participants' self-reported ideology and national group condition: the slope for the relationship between participants' self-reported conservatism and social closeness was consistently higher with Italian

targets than with Immigrant ones (mean unstandardized B coefficient difference = 0.37, 95% High Posterior Density Intervals (HPDI) = [0.20, 0.55]). This means that, even though there is a strong ideology-similarity effect, which Chambers and colleagues would attribute to the value-conflict, a strong *prejudice gap* is also present in terms of social closeness (Fig. 3). This is what indicates that right-wing individuals, even if they tend to like right-wing immigrants more than left-wing ones, would prefer not to live close to immigrants in general, regardless of their ideology.

We found that self-reported Ideology is strongly related to Symbolic Racism (Pearson $r = .57$, $BF_{10} = 11,836$), but not to System Justification (Pearson $r = .13$, $BF_{01} = 3.9$). We thus computed a composite measure of ideology by averaging the standardized self-reported ideology and the standardized score on SR, and we found the same pattern of results.

General discussion

Recent findings on the relationship between ideology and prejudice suggest that liberals and conservatives are similarly biased against ideologically dissimilar groups (Chambers et al., 2013; Brandt et al. 2014; Crawford et al., 2014, 2017). These findings challenge traditional theories that contend that conservatives are more prejudiced against out-group members than are liberals.

In our study, we successfully replicated Chambers and colleagues' (2013) original results on an Italian sample and found that impression ratings on outgroup members are related to the similarity between participants' ideology and the perceived group ideology (Study 1). Nevertheless, a deeper analysis of our data, with the help of a Bayesian approach to quantify evidence for different hypotheses, showed that this finding could be at least partially explained by assimilation–contrast effects. Indeed, we found that the more participants reported being conservative, the more they perceive some disliked groups (i.e., illegal aliens and gypsies) as

liberals. In our Study we closely replicated Study 2 from the original Chambers et al. paper. Similarly to the original study, we experimentally manipulated the target group members' ideology by attributing liberal/conservative attitudes to members of groups that are stereotypically liberal-linked or conservative-linked (e.g., a "Gay man who opposes against abortion") and collected the overall impression ratings from the participants. We also added a domain factor (i.e. sexuality and nationality) to ascertain whether a prejudice gap would emerge more strongly in a domain where an asymmetry in status is more relevant (i.e. nationality: Immigrants vs. Italians), as predicted by a system justification (Jost & Banaji, 1994) or a social dominance orientation theoretical standpoint (Sidanius & Pratto, 1999). We closely replicated the original Study 2 findings and we did not find any moderation role of the domain. In other words, we found that conservative/liberal participants liked members of both in-groups and out-groups (i.e., conservative-linked/liberal-linked) when these individuals shared their own political orientation. The same results were found when using a composite measure of ideology and attitudes, rather than a simple one-item self-reported ideology measure.

In Study 3, we utilized a brand-new design to investigate whether the value-conflict effect was resistant to a specific manipulation assessing people's behavioral intentions towards out-groups (i.e., social distance). In this case, although an ideological similarity main effect was still found, conservatives were shown to be willing to maintain greater social distance from outgroup members, regardless of their political attitudes. In other words, conservatives were shown to be reluctant to live close to an immigrant, regardless of whether the immigrant is conservative or liberal.

In short, we showed that: (1) a *value-conflict* effect is strongly confirmed when people are generally asked to express their overall impressions about ideologically similar/dissimilar out-

groups; however, (2) a *prejudice gap* (i.e. an out-group bias present only among conservative people) also occurs and it clearly emerges when we investigate people's willingness to be socially close to similar out-group individuals.

Our results shed a new light on the debate between standard theories of prejudice (Kay & Jost, 2003) and recent positions that pose more emphasis on the value-conflict hypothesis (Brandt et al., 2014). Contrary to what is stated by recent literature, we may infer that right-wing people's prejudices and hostility toward out-groups cannot be solely explained by perceived similarity in ideological values. However, a tentative explanation might be that the different measures assess distinct stages in the path that goes from attitudes to behaviors. Presumably, when people are asked to merely express impressions about out-group/in-group members, then the ideological similarity with the target groups plays the most important role in evoking affective reactions. Conversely, people's attention seems to be strongly directed to out-group characteristics (i.e., immigrant vs. local), independently of others' similarities to their own ideology, when their behavioral intentions towards these out-group individuals are in place. While in the former case both right-wing and left-wing people are shown to be prejudiced, in the latter case only right-wing individuals display prejudicial attitudes. We might infer that even if both liberals and conservatives show elements of affective prejudice towards people who do not share their own ideology, only conservatives are inclined to behave prejudicially toward members of out-groups in any case, despite the presence of any ideological similarity with these out-groups. This suggests that conservatism predicts prejudice toward outgroups (e.g., ethnic minorities) at a deeper motivational level (Duckitt, 2001).

Moreover, the similarity-liking inferential directionality is unpredictable. In brief, following the similarity-liking principle, we might tend to like people that we identify as similar to us, but it

might also be that we tend to perceive people as similar to us because we like them (i.e. assimilation-contrast effect). Our data from study 1 seem to favor this second explanation.

In general, it should be noted that most of the target groups Chambers and colleagues identify in their Study 1 are highly politicized (e.g., feminists, black militants, etc.), an aspect that might affect the analyses. Nevertheless, it is also questionable that a “high agreement between liberals and conservatives in how they categorize common target groups” is present, as Chambers and colleagues (2013, p. 7) state. This hypothesis was not properly tested, because they report only an overall correlation between the average ideology ratings for each group provided by conservative and liberal participants. Moreover, no Bayesian testing was conducted in order to assess the strength of the evidence in favor of the absence or the presence of an effect.

Another important difference between our study and the original study is that Chambers, Schlenker and Collisson excluded politically neutral participants. This led to the exclusion of a substantial proportion of participants (23% - 34%) that would actually provide important information. Furthermore, we concur with some concerns raised about the tendency to discretize variables in psychology (Young, 2016) and we are confident that treating ideology (both participants’ and target groups’) as a continuous measure adds relevant information to our study. Our data suggests that conservatives do not modify or supersede their attitudes toward out-group individuals, even when other circumstances making these individuals appear more likeable are present (e.g., sharing the same political positions). In fact, conservatives show social distance toward out-groups in any instance (e.g., even when out-group individuals are conservative themselves). This still supports the existence of a residual degree of prejudicial gap between conservatives and liberals when it comes to behavioral intentions towards minority groups.

Data availability

Data (https://osf.io/662cd/?view_only=4a88dbe4cc4744968afdf0e09343ea6e) and R scripts (https://osf.io/9w69c/?view_only=1173470fc205490b9bb2ea3410f1d09f) are available on the Open Science Framework repository.

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