

SOCIAL DOMINANCE ORIENTATION, REALISTIC AND SYMBOLIC THREAT: EFFECTS ON ITALIANS' ACCULTURATION ORIENTATIONS, INTERGROUP ATTITUDES AND EMOTIONS TOWARD IMMIGRANTS

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In this study, realistic and symbolic threat were tested as mediators of the effects of Social Dominance Orientation (SDO; Sidanius & Pratto, 1999) on acculturation orientations, intergroup attitudes and emotions. One-hundred Italian undergraduates completed one of three versions of a questionnaire, each evoking a different target group: immigrants in general, Moroccans, Chinese. We predicted that the effects of SDO on acculturation orientations would be mediated by realistic threat in the employment domain and by symbolic threat in the culture domain; both threats should mediate the SDO-intergroup attitudes and emotions relationship. Results showed, partially supporting predictions, mediation effects by realistic threat on integrationism (employment domain), intergroup attitudes and emotions, and by symbolic threat on assimilationism (culture domain). Evidence of moderated mediation emerged in the path from predictor to mediator: SDO increased realistic threat more for immigrants in general and Moroccans than for Chinese. Theoretical and practical implications of findings are discussed.

Key words: Acculturation orientations; Social Dominance Orientation (SDO); Realistic threat; Symbolic threat; Host community acculturation scale.

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INTRODUCTION

In the last decades there has been a strong increase in international migrations, notably involving Southern European countries (Bonifazi, 2007). Migration flows toward Southern Europe concern not only the arrival of immigrants from outside, but also from within the EU (especially, from the ex-communist countries which recently joined the EU). The number of legal immigrants in Italy, excluding illegal and thus unregistered ones, has trebled in the past few years, rising from roughly 1.3 million, in 2002, to approximately 3.9 million — 6.5% of the total residents — in 2009 (data from the Italian Institute of Statistics, January 1, 2009). Importantly, immigrants are not homogeneously distributed in Italy: almost half of them are concentrated in the North, whereas the other half is distributed between Central and Southern regions, with consequential problems of integration in many social areas, such as education, health, occupation. In this context, an examination of the acculturation orientations displayed by Italians, their determi-

nants and underlying processes is especially valuable, and can have theoretical as well as practical consequences.

The primary aim of this study was to test realistic and symbolic threats as mediators between Social Dominance Orientation (SDO; Sidanius & Pratto, 1999) and acculturation orientations. By means of comparison, we tested the mediating role of the two types of threat in the relation between SDO and intergroup attitudes (evaluations) and emotions. An additional aim of the present work was to investigate if the effects obtained were moderated by specific target groups. In fact, given that immigrants presently living in Italy originate from many different countries, it is possible that the acculturation orientations for immigrants displayed by Italians and their determining processes differ on the basis of the salient immigrant group. We are not aware of other studies examining realistic and symbolic threat as mediating factors in the relationship between SDO, on one hand, and acculturation orientations, intergroup attitudes and emotions, on the other.

ACCULTURATION ORIENTATIONS AND THE INTERACTIVE ACCULTURATION MODEL

By acculturation we refer to a process of bidirectional change concerning two or more groups with a different cultural background coming into contact (Graves, 1967). As a consequence, both the majority and the minority groups adapt their culture to the new context (Berry, 1997).

To investigate acculturation, we adopted the Interactive Acculturation Model (IAM; Bourhis, Moïse, Perreault, & Senécal, 1997), which considers the interplay between the acculturation orientations endorsed by the groups in contact. According to the IAM, specific consequences are likely to arise from the acculturation strategies adopted by the interacting groups, which should then be considered together rather than in isolation (Berry, 1997; Liebkind, 2001). Most of the research in this field has investigated acculturation preferences held by minority group members (Berry, 2006), although researchers show an increased interest in addressing also the point of view of the majority group (e.g., Barrette, Bourhis, Personnaz, & Personnaz, 2004; Bourhis & Dayan, 2004; Montreuil & Bourhis, 2001, 2004; Montreuil, Bourhis, & Vanbeselaere, 2004). In the present research, we focused on acculturation strategies adopted by the majority group.

According to Bourhis and collaborators (1997; see also Bourhis, Barrette, & Moriconi, 2008), host majority group members may endorse the following acculturation strategies for immigrants: (a) assimilationism, preferred by dominant group members who think that immigrants should abandon their own cultural identity and adopt that of the majority group; (b) segregationism, implying that immigrants may preserve their own culture as long as they do not adopt or change the culture of the dominant group and do not come into contact with it; (c) exclusionism, endorsed by majority members thinking that immigrants should neither maintain their own customs nor adopt or transform features of the dominant group's culture; (d) individualism, according to which the endorsement or the rejection of one's cultural origins does not matter, because each person is a unique individual and should be valued for his/her personal characteristics and individual achievements; (e) integrationism, endorsed by members of the host majority who believe that immigrants can maintain their own culture and at the same time adopt at least some features of the dominant group culture. A further strategy, recently proposed by Bourhis and col-

laborators (see, e.g., Barrette, Bourhis, Capozza, & Hichy, 2005; Montreuil et al., 2004; Safdar, Dupuis, Lewis, El-Geledi, & Bourhis, 2008), is integrationism with transformation, preferred by those who think that both majority and minority group members should change some features of their culture to adapt to the new multicultural context.

With respect to the minority group, its members may adopt the following acculturation strategies: assimilationism, separatism, marginalization, individualism, integrationism, integrationism with transformation (see Barrette et al., 2004, 2005). The interplay between the acculturation orientations preferred by the majority and by the minority groups can give rise to harmonious, problematic, or conflictual intergroup relations (Bourhis et al., 1997). Thus, it is of central importance to determine which factors are driving the endorsement of the different strategies. Relevant to the present work, some studies showed that the preference for specific acculturation orientations by dominant group members depends on the target group evoked: positive orientations (individualism, integrationism) are preferred for “valued” immigrant groups, whereas negative orientations (assimilationism, segregationism, exclusionism) are chosen more with reference to “devalued” immigrant groups (see, e.g., Bourhis & Dayan, 2004; Montreuil & Bourhis, 2001).

SDO AND ACCULTURATION

In the present study, we tested SDO as a predictor of acculturation orientations, intergroup attitudes and emotions. SDO can be defined as a general orientation toward the support for unequal relationships among salient social groups (Sidanius & Pratto, 1999). People with high levels of SDO endorse traits of aggressivity, vindictiveness, tough-mindedness, coldness (e.g., Ekehammar, Akrami, Gylje, & Zakrisson, 2004), and are especially concerned with the maintenance of power differentials between groups (Pratto, Sidanius, & Levin, 2006). SDO is an important antecedent of negative intergroup relations: it is associated with a variety of group-based prejudices (Pratto, Sidanius, Stallworth, & Malle, 1994; Sidanius, Levin, Federico, & Pratto, 2001) and with tendencies to adopt social policies favoring the high status/power groups (Sidanius, Pratto, & Bobo, 1996).

According to Social Dominance Theory (SDT; Pratto et al., 2006), SDO should be associated with ingroup favoritism more in high-status than in low-status groups, because the compatibility between group position and support for social inequality is greater in the former than in the latter (ideological asymmetry hypothesis). In other words, favoring social inequalities should serve one's group interests more when the ingroup has a privileged, rather than a devalued, position (Levin, Sidanius, Rabinowitz, & Federico, 1998), as it is the case when considering the relation between majority and minority group members from the point of view of the host dominant group.

Given the detrimental consequences of SDO on intergroup relations (Sidanius & Pratto, 1999), the lack of studies investigating the effects of the preference for social inequalities on acculturation orientations is surprising. However, the existing evidence on the relation between SDO and acculturation strategies consistently demonstrates that SDO is positively related to strategy of refusal, such as assimilationism, and negatively to strategies of acceptance, such as integrationism (see Giovannini, Pintus, & Vezzali, in press; Vezzali, Pintus, & Giovannini, 2008). For instance, Bourhis and Dayan (2004; see also Bourhis et al., 2008), by examining the attitudes of Israeli undergraduates of Jewish background (high-status majority) toward Israeli Arabs (devalued national

minority) and Jewish immigrants of Russian and Ethiopian background (valued national minority), found that low-SDO individuals endorsed more the individualism and integrationism strategies, whereas those high on SDO preferred more the segregationism, exclusionism, and assimilationism strategies. Similar results were found in the Italian context by Capozza and collaborators. Trifiletti, Dazzi, Hichy, and Capozza (2007; see also, e.g., Hichy, Capozza, Mari, & Falvo, 2008; Mari, Volpato, Capozza, & Bourhis, 2009) examined the effects of SDO, among other individual difference variables, on acculturation orientations preferred by Italian university students toward three target groups: immigrants in general, Albanians (devalued group), Chinese (valued group). Acculturation attitudes were assessed in two domains: employment and cultural heritage. Results showed both similarities and differences between domains. SDO was associated positively to exclusionism and negatively to individualism in both domains. However, SDO was related to increased endorsement of segregationism and to rejection of integrationism in the employment domain; it predicted stronger preference for assimilationism in the cultural heritage domain. Thus, although SDO is proved to be an important determinant of acculturation orientations, its effects depend on the specific domain considered (see also Barrette et al., 2005).

MEDIATING EFFECTS OF REALISTIC AND SYMBOLIC THREAT

We are aware of only two studies examining the processes driving the effects of SDO on acculturation strategies. Andrighetto, Trifiletti, Pasin, and Capozza (2008) found, in a sample of Italian university students evaluating relations with immigrants, that the effects of SDO on segregationism, exclusionism, and assimilationism in the cultural heritage (but not in the employment) domain were mediated by the belief in genetic determinism (see Keller, 2005), that is, by the belief that members of some social groups share immutable characteristics. The results by Hichy and collaborators (2008) revealed that the effects of SDO on acculturation orientations toward immigrants in the cultural domain displayed by Italian students and nurses were mediated by the threat to the Italian culture posed by immigrants.

In the present study, we tested realistic and symbolic threat as mediators of the effects of SDO on acculturation orientations and on intergroup attitudes and emotions. The concept of realistic threat, which has its origins in realistic group conflict theory (LeVine & Campbell, 1972; Sherif, 1966), refers to perceptions of competition over material resources and incompatible goals between groups, and to harm to power and economic well-being of the ingroup. Symbolic threat, mentioned by Allport (1954) and by Adorno and colleagues (Adorno, Frenkel-Brunswick, Levinson, & Sanford, 1950), and which is a central concept in symbolic racism theory (Kinder & Sears, 1981; McConahay, 1982), concerns non-tangible aspects, such as conflicting morals, cultural values, beliefs, norms, and world-views between groups. There is considerable evidence showing that both realistic and symbolic threat produce detrimental effects on acculturation orientations (e.g., Bourhis & Dayan, 2004; Florack, Piontkowski, Rohmann, Balzer, & Perzig, 2003, Study 1; Montreuil & Bourhis, 2001; Montreuil et al., 2004; Piontkowski, Florack, Hoelker, & Obdržálek, 2000) and, more in general, on intergroup relations (for a recent meta-analysis, see Riek, Mania, & Gaertner, 2006). The concepts of realistic and symbolic threat, together with those of outgroup stereotypes and intergroup anxiety, are also key elements of the Integrated Threat Theory (ITT; Stephan & Stephan, 1996, 2000; for alternative models concerning the rela-

tion between intergroup anxiety, threat, acculturation attitudes and SDO, see, e.g., Morrison & Ybarra, 2008, 2009; Rohmann, Florack, & Piontkowski, 2006).

Surprisingly, there are not many studies directly testing the different types of threat as mediators between SDO and intergroup attitudes. Duckitt (2006) found that threat (a single index including both realistic and symbolic threat) mediated the relation between SDO and more negative intergroup attitudes. However, these effects were weak and disappeared once perceived competitiveness by the outgroup (the perception that the outgroup is in competition with the ingroup) was considered. Similar results were found by Esses and colleagues (Esses, Dovidio, Jackson, & Armstrong, 2001; Esses, Jackson, & Armstrong, 1998; Jackson & Esses, 2000), who showed that perceived outgroup competitiveness and perception that resources were zero-sum mediated the relation between SDO and negative intergroup attitudes. For our purposes, we can consider the perception of outgroup competitiveness and zero-sum resources tested in these studies as a form of realistic threat. Thus, existing evidence seems to suggest that threat (especially, realistic threat) may mediate the effects of SDO on intergroup attitudes. In the present research, in addition to acculturation strategies and in order to provide a more complete test of our hypotheses, we considered not only intergroup attitudes, but also measures of intergroup emotions (anxiety, empathy). The choice to include measures of intergroup anxiety and empathy is due to the crucial role played by these two emotions in intergroup relations (see Brown & Hewstone, 2005; Capozza, Vezzali, Trifiletti, Falvo, & Favara, 2010).

Our predictions were that the effects of SDO on acculturation strategies in a domain more closely associated with material resources and prosperity of the ingroup, such as the employment domain, would be mediated by realistic threat perceptions. In contrast, we anticipated that the relation between SDO and acculturation strategies concerning the possibility for immigrants to maintain or relinquish their original culture, such as those in the cultural heritage domain, would be mediated by the threat posed by immigrants to Italian values and beliefs, that is, by symbolic threat. Both types of threat were expected to mediate the effects of SDO on intergroup attitudes. Furthermore, we hypothesized that both threats would mediate the relationship between SDO and intergroup emotions. However, because we are not aware of any study investigating realistic and symbolic threat as mediating factors between SDO and intergroup emotions, the latter prediction is only exploratory.

OVERVIEW OF THE STUDY

The first aim of the present study was to test if realistic and symbolic threat act as mediators between SDO (Sidanius & Pratto, 1999) and Italians' acculturation orientations (employment and cultural heritage domains), intergroup attitudes and emotions (anxiety, empathy). Further, we aimed to examine if acculturation strategies, intergroup attitudes and emotions differ on the basis of the specific target group evoked: immigrants in general, Moroccans (devalued group), Chinese (valued group). Moroccans and Chinese were chosen as target groups on the basis of previous studies conducted in the Italian context (see Giovannini et al., in press; Trifiletti et al., 2007; Vezzali et al., 2008) and because they were two of the larger immigrant groups in the city where the study was carried out (Reggio Emilia).

To recap, hypotheses are the following.

Hypothesis 1. Acculturation orientations in both domains, intergroup attitudes and emotions should be more negative toward immigrants in general and Moroccans (the devalued group) than toward Chinese (the valued group). Similarly, realistic and symbolic threat should be more pronounced for immigrants and Moroccans than for Chinese. We do not predict differences in acculturation orientations, intergroup attitudes and emotions toward immigrants in general and toward Moroccans, because we expect the general category of immigrants to be similar to the most salient immigrant groups, which are likely to be the ones evaluated most negatively (e.g., the Moroccans).

Hypothesis 2. Realistic threat should act as mediator between SDO and acculturation strategies in the employment domain.

Hypothesis 3. Symbolic threat is expected to mediate the relationship between SDO and acculturation strategies in the cultural heritage domain.

Hypothesis 4. The effects of SDO on intergroup attitudes and emotions should be mediated by both realistic and symbolic threat.

METHOD

Participants and Procedure

Participants were 100 students (5 males, 92 females; three participants did not indicate their gender) of the Faculty of Education Sciences (University of Modena and Reggio Emilia). Mean age was 21.63 years ($SD = 4.68$). All participants were Italians (they were born in Italy and so were their parents).

There were three experimental conditions, differing only for the target group evoked: immigrants in general, Moroccans, Chinese. Participants first completed a SDO scale during lessons as part of an unrelated study, ostensibly designed to test the psychometric properties of some measurement scales. Then, they were given a questionnaire to fill in. The study was presented as a research on relations between groups. There were three alternative versions of the questionnaire, which differed only for the target group made salient (participants completing the questionnaire in the immigrants in general, Moroccans, and Chinese conditions were 37, 26, and 37, respectively). The questionnaire assessed: realistic and symbolic threat, acculturation orientations, ingroup and outgroup evaluation, intergroup anxiety, intergroup empathy.

Measures

SDO. We administered the Italian adaptation of the SDO₆ scale (Sidanius & Pratto, 1999), developed by Aiello and collaborators (Aiello, Chirumbolo, Leone, & Pratto, 2005), consisting of 16 items. The seven-step scale ranged from 1 (*I strongly disagree*) to 7 (*I strongly agree*); 4 was the neutral point. A sample item is: "To get ahead in life, it is sometimes necessary to step on other groups." The 16 items were averaged in a reliable index ($\alpha = .82$): the higher the score, the stronger the support for social inequality.

Realistic and symbolic threat. Realistic threat was assessed with the following item: "To what extent do you think that the presence of immigrants [Moroccans/Chinese] in Italy consti-

tutes a threat to the material well-being of Italians?” We measured symbolic threat by using the following item: “To what extent do you think that the presence of immigrants [Moroccans/Chinese] in Italy constitutes a threat to the values and habits of Italians?” For both items, a seven-step scale was used, ranging from 1 (*not at all*) to 7 (*very much*).

Acculturation orientations. Participants completed the Italian version of the Host Community Acculturation Scale (HCAS; Bourhis & Bougie, 1998), developed by Capozza and collaborators (Barrette et al., 2005). Acculturation strategies were assessed in two domains: employment and cultural heritage. For each domain, there were five items, each corresponding to one acculturation strategy: assimilationism, segregationism, exclusionism, individualism, integrationism. Sample items are: “When a job is available, employers should hire immigrants [Moroccans/Chinese] only if they adopt Italian working procedures” (assimilationism, employment domain); “Immigrants [Moroccans/Chinese] should maintain their own culture, while also adopting the Italian culture” (integrationism, cultural heritage domain). Participants answered on a seven-step rating scale, ranging from 1 (*strongly disagree*) to 7 (*strongly agree*); 4 was the neutral point.

Ingroup and outgroup evaluation. To assess the evaluation of the ingroup and outgroup categories, we used the evaluation thermometer measure developed by Haddock, Zanna, and Esses (1993). Participants rated the Italian and immigrant groups (depending on the experimental condition, participants evaluated immigrants in general, Moroccans, or Chinese) on a scale ranging from 0 (*extremely unfavorable*) to 100 (*extremely favorable*). An index of ingroup bias was obtained, by calculating the difference between ingroup and outgroup evaluation: the higher the score, the stronger the bias favoring the Italian group.

Intergroup emotions. Participants rated their emotions toward immigrants by using eight 7-point items (see Vezzali, Capozza, & Falvo, 2009; Vezzali, Capozza, & Pasin, 2009), anchored by *not at all* (1) and *very strongly* (7). Four expressed anxiety (e.g., anxious, worried), four empathy (see Batson, 1998). A sample item assessing empathy is: “Thinking about the situation of immigrants [Moroccans/Chinese], to what extent do you feel that you share their emotions?” Reliability was high (alphas = .86, .86, .80, for anxiety, and .90, .79, .90, for empathy, in the immigrants in general, Moroccans, and Chinese conditions, respectively). The items were combined for the two emotions: higher scores reflect stronger intergroup anxiety and empathy, respectively.

RESULTS

Moderation by Target Group

Means and standard deviations of the measures of SDO, realistic and symbolic threat, ingroup and outgroup evaluation, intergroup emotions, for the three experimental conditions, are shown in Table 1. In Table 2, the acculturation orientations displayed by participants in the three experimental conditions are presented.

To test Hypothesis 1, we performed a series of one-way ANOVAs, with experimental condition as a between-subject variable. As can be noted in Table 1, SDO (administered prior to evoking the target group) did not differ as a function of experimental condition. As predicted,

TABLE 1
Means and *F*-values for the measures of SDO, realistic and symbolic threat, ingroup and outgroup evaluation, intergroup emotions, in the three experimental conditions (standard deviations are reported between parentheses)

Dependent variable	Target group			<i>F</i>
	Immigrants	Moroccans	Chinese	
SDO	2.95 (0.91)	2.87 (0.70)	2.67 (0.70)	1.21
Realistic threat	4.70a (1.66)	4.27a (1.69)	3.41b (1.48)	6.22**
Symbolic threat	3.86a (2.12)	4.19a (1.79)	2.65b (1.69)	6.22**
Intergroup anxiety	3.67a (1.27)	4.32b (1.23)	3.16a (0.96)	7.71***
Intergroup empathy	2.97 (1.32)	2.44 (0.86)	2.94 (1.28)	1.74
Ingroup evaluation	76.22 (17.54)	76.54 (14.95)	79.39 (16.15)	0.40
Outgroup evaluation	51.89ab (23.43)	40.38a (22.54)	53.61b (22.95)	2.81 [†]
Ingroup bias	24.32 (25.34)	36.15 (26.54)	25.83 (27.40)	1.72

Note. The index of ingroup bias was calculated by subtracting the evaluation of the outgroup from that of the ingroup. Different subscripts on the same row indicate that the means are significantly different, $p < .05$.

[†] $p < .07$; * $p < .05$; ** $p < .01$; *** $p \leq .001$.

TABLE 2
Means for the acculturation orientations in the employment and cultural heritage domains, in the three experimental conditions (standard deviations are reported between parentheses)

Acculturation strategy	Employment domain			Cultural heritage domain		
	Immigrants	Moroccans	Chinese	Immigrants	Moroccans	Chinese
Assimilationism	5.46 (1.57)	4.96 (1.31)	4.95 (1.60)	2.05 (1.22)	1.92 (0.94)	1.59 (0.90)
Segregationism	2.70 (1.58)	2.38 (1.39)	1.97 (0.99)	5.28 (1.72)	5.46 (1.39)	4.84 (1.74)
Exclusionism	2.05 (1.41)	1.92 (1.23)	1.46 (0.69)	2.70 (1.65)	2.58 (1.14)	2.38 (1.01)
Individualism	6.00 (1.18)	5.81 (1.55)	6.46 (0.84)	4.73 (1.82)	5.00 (1.79)	5.14 (1.55)
Integrationism	4.92 (1.89)	4.88 (1.58)	5.92 (1.30)	4.78 (1.55)	5.00 (1.41)	4.78 (1.29)

both realistic and symbolic threat were higher for immigrants in general and Moroccans than for Chinese. Partially consistent with Hypothesis 1, anxiety was higher for Moroccans than for immigrants in general and Chinese (the means indicate a nonsignificant tendency for anxiety to be higher for immigrants in general than for Chinese). Similarly, although the effect of the ANOVA did not reach statistical significance, empathy was lower for Moroccans than for the other two target groups. Outgroup evaluation was higher (marginal effect) for the valued (Chinese) than for the devalued group (Moroccans); the evaluation of immigrants in general did not differ significantly from that of the other two groups. A similar tendency, although nonsignificant, can be observed for ingroup bias; because, not surprisingly, ingroup ratings do not differ among experimental conditions, the higher ingroup bias found for Moroccans appears to be driven by outgroup rather than by ingroup evaluations.

Concerning acculturation orientations, two one-way MANOVAs, with experimental condition as the independent variable, were conducted: in the first, dependent variables were acculturation strategies in the employment domain; in the second, acculturation strategies in the cultural heritage domain served as outcome variables. Contrary to predictions, the multivariate effects were not significant, $F_s < 1.51$, *ns*. However, a close inspection of means (Table 2) offers some support for our hypothesis that acculturation orientations would be more positive toward Chinese than toward the other two target groups. In fact, participants tended to adopt more the strategies of assimilationism (cultural heritage domain), segregationism (both domains), exclusionism (both domains), and tended to endorse less those of individualism (both domains) and integrationism (employment domain), for immigrants in general and Moroccans than for Chinese. In addition, it is worth noting that, independently from the target group, assimilationism and, to a lesser extent, individualism, tended to be preferred more in the employment than in the cultural domain, whereas segregationism tended to be preferred more in the cultural than in the employment domain. This difference is important in that it shows that it is not pointless to examine the acculturation orientations displayed in different domains. However, the effects are nonreliable.

In sum, Hypothesis 1 received weak support: although acculturation orientations, intergroup attitudes and emotions were generally more positive toward the valued group (Chinese) and, sometimes, toward immigrants in general, than toward the devalued group (Moroccans), many of the effects did not attain statistical significance.

Mediation Analyses

To test Hypotheses 2, 3, and 4, data were collapsed across the three target groups. Multiple regression was applied. According to Baron and Kenny (1986), for mediation to occur, three conditions must be met. First, the predictor must be associated with the dependent variable. Second, the relation between the predictor and the hypothesized mediator must be significant. Third, when the predictor and the mediator are entered together in the regression equation, the original path between the predictor and the outcome variable must weaken (partial mediation) or become nonsignificant (total mediation), whereas the path from the mediator to the dependent variable must remain significant.

Each of our mediators met the prerequisites for mediation to be examined. In fact, SDO was positively associated with both increased realistic ($\beta = .38, p < .001$) and symbolic threat ($\beta = .43, p < .001$). Thus, the more our participants favored social inequalities, the stronger they perceived immigrants as posing both a realistic and a symbolic threat to Italians.

In Hypothesis 2, we predicted that realistic threat would mediate the relation between SDO and acculturation strategies in the employment domain. Preliminary analyses showed that SDO was positively associated with assimilationism ($\beta = .17, p < .09$, marginal effect), segregationism ($\beta = .35, p < .001$), exclusionism ($\beta = .44, p < .001$), while it was negatively associated with individualism ($\beta = -.51, p < .001$) and integrationism ($\beta = -.44, p < .001$). Thus, having met the first criterion by Baron and Kenny (1986), that is, significant association between predictor and dependent variable, mediation could be assessed for the five acculturation strategies in the employment domain. To provide a more stringent test of our hypothesis, we included in the regression equation, together with SDO, both types of threat, so as to test the mediating effect of realistic threat by, at the same time, controlling for the effects of symbolic threat.

As can be noted in Table 3, we found that, consistent with our second prediction, when entered together in the regression equation, realistic threat was negatively associated with integrationism, while the effect of SDO was reduced (partial mediation). According to the Sobel test, the mediation effect was significant, $z = 2.43, p < .05$. The portion of variance explained was satisfactory (31%). No other mediation effects were detected (Table 3).¹ Thus, Hypothesis 2 received partial support, because the expected mediation by realistic threat emerged only for the strategy of integrationism.

TABLE 3
Multiple regressions evaluating the effects of SDO
and of realistic and symbolic threat on acculturation orientations
(standardized regression coefficients)

Predictors	Employment domain					Cultural heritage domain	
	Assimilationism	Segregationism	Exclusionism	Individualism	Integrationism	Assimilationism	Exclusionism
SDO	.09 (.17 [†])	.29** (.35***)	.30** (.44***)	-.40*** (-.51***)	-.28** (-.44***)	.42*** (.54***)	.43*** (.55***)
Realistic threat	.17	.20	.15	-.10	-.34**	.03	.15
Symbolic threat	.05	-.05	.19	-.16	-.05	.25*	.16
R^2	.06	.15	.27	.30	.31	.35	.37
F	2.24 [†]	5.62***	11.94***	13.86***	14.39***	17.28***	18.70***
df	(3, 96)	(3, 96)	(3, 96)	(3, 96)	(3, 96)	(3, 96)	(3, 96)

Note. The values reported between parentheses refer to the original β s, when non-considering the effects of realistic and symbolic threat.

[†] $p < .09$; * $p < .05$; ** $p < .01$; *** $p \leq .001$.

Our third hypothesis stated that symbolic threat would act as mediator of the relationship between SDO and acculturation strategies in the cultural heritage domain. Preliminary analyses showed that SDO was significantly associated with two of the five acculturation strategies: as-

similationism ($\beta = .54, p < .001$) and exclusionism ($\beta = .55, p < .001$). Thus, mediation could be tested only for these two strategies (Baron & Kenny, 1986). Again, to provide a more stringent test of our prediction, both types of threat were entered as predictors, along with SDO, in order to assess the effects of symbolic threat by controlling at the same time for the effects of realistic threat. As shown in Table 3, consistent with Hypothesis 3, symbolic threat mediated the effects of SDO on assimilationism (partial mediation). The mediation effect was significant, $z = 1.99, p < .05$. The portion of variance explained was quite high (35%). There was no mediation on exclusionism (Table 3).² Thus, Hypothesis 3 also received partial support, because the anticipated mediation by symbolic threat was significant only for the strategy of assimilationism.

Finally (Hypothesis 4), we predicted that both types of threat would mediate the relationship between SDO and intergroup attitudes and emotions. Preliminary analyses indicated that SDO was predictably associated with all variables (with the exception of ingroup evaluation, which was not supposed to depend on SDO), thus allowing us to test mediation (Baron & Kenny, 1986): intergroup anxiety ($\beta = .40, p < .001$), intergroup empathy ($\beta = -.39, p < .001$), outgroup evaluation ($\beta = -.44, p < .001$), ingroup bias ($\beta = .33, p = .001$).

As can be observed in Table 4, consistent with expectations, realistic threat mediated the effects of SDO on the four criterion variables: intergroup anxiety, $z = 3.10, p < .01$ (total mediation), intergroup empathy, $z = 2.63, p < .01$ (partial mediation), outgroup evaluation, $z = 3.00, p < .01$ (partial mediation), ingroup bias, $z = 2.58, p < .01$ (total mediation). The portion of variance explained was high for intergroup anxiety (43%) and outgroup evaluation (41%); it was satisfactory for intergroup empathy (28%) and ingroup bias (30%). Contrary to Hypothesis 4, however, symbolic threat did not function as a mediator of the relationship between SDO and intergroup attitudes nor between SDO and emotions (Table 4). Thus, our fourth prediction received strong support, but only with reference to realistic threat.

TABLE 4
Multiple regressions evaluating the effects of SDO
and of realistic and symbolic threat on intergroup attitudes and emotions
(standardized regression coefficients)

Predictors	Dependent variables			
	Intergroup anxiety	Intergroup empathy	Outgroup evaluation	Ingroup bias
SDO	.17 [†] (.40***)	-.24* (-.39***)	-.24** (-.44***)	.13 (.33***)
Realistic threat	.50***	-.40***	-.46***	.38**
Symbolic threat	.10	.01	-.06	.14
<i>R</i> ²	.43	.28	.41	.30
<i>F</i>	23.76***	12.57***	22.37***	13.77***
<i>df</i>	(3, 96)	(3, 96)	(3, 95)	(3, 95)

Note. The index of ingroup bias was calculated by subtracting the evaluation of the outgroup from that of the ingroup. The differences in the degrees of freedom are due to missing data. Values reported between parentheses refer to the original β s, when non-considering the effects of realistic and symbolic threat.

[†] $p < .06$; * $p < .05$; ** $p < .01$; *** $p \leq .001$.

Moderated Mediation

Although the moderation effects found for the target group were weak or absent, we reasoned that the target group might moderate the *mediation effects* of realistic and symbolic threat. Moderated mediation is said to exist when the mediating process underlying the effect of the predictor on the outcome variable depends on the levels of a moderator. Moderation can emerge in the path from the predictor to the mediator, in the path from the mediator to the dependent variable, or in both paths (Baron & Kenny, 1986; Muller, Judd, & Yzerbyt, 2005). In our case, we were interested in testing if the mediation effects detected for realistic and symbolic threat were moderated by the target groups considered (immigrants in general, Moroccans, Chinese). In particular, the expectations were that: (a) the relation between SDO and the two types of threat, (b) the relation between the two types of threat and the dependent variables, or (c) both relations, would be stronger for immigrants in general and Moroccans (the devalued group) than for Chinese (the valued group).

To assess moderated mediation, we relied on the procedure described by Muller and collaborators (2005). Three equations for each outcome variable were run. In the first, the dependent variable was regressed on the predictor (i.e., SDO), the moderator (i.e., target group: we created two dummy variables: in the first, 0 was given to immigrants in general and Chinese, 1 was given to Moroccans; in the second, 0 was given to immigrants in general and Moroccans, 1 was given to Chinese), and the interaction between the two. In the second, the mediating variable (i.e., realistic/symbolic threat) was regressed on the predictor (i.e., SDO), the moderator (i.e., target group), and the two-way interaction. In the third, the dependent variable was regressed on the predictor (i.e., SDO), the moderator (i.e., target group), the mediator (i.e., realistic/symbolic threat), the two-way interactions between predictor and moderator and between moderator and mediator. In order to provide a more conservative test of our hypotheses, both types of threats and their interactions were entered simultaneously in the third regression equation, so as to test moderated mediation for one type of threat at the same time controlling for the other type of threat. All continuous variables were centered prior to multiplication, as a means of avoiding multicollinearity (see Cronbach, 1987; Jaccard, Wan, & Turrise, 1990).

For moderated mediation to occur, an overall effect of the predictor should emerge in the first equation. According to Muller and collaborators (2005), then, moderated mediation exists if: (a) there is moderation (predictor \times moderator) in the second equation and a main effect of the mediator on the dependent variable in the third equation; (b) there is a main effect of the predictor on the mediator in the second equation and a moderation effect (mediator \times moderator) in the third equation; (c) there is moderation both from predictor to mediator (predictor \times moderator in the second equation) and from mediator to dependent variable (mediator \times moderator in the third equation).

Analyses showed evidence of moderated mediation for five criterion variables. In the first type of regression, which was performed for all dependent variables (acculturation orientations, intergroup attitudes, emotions), the main effect of SDO was significant for the following dependent variables: segregationism in the employment domain ($\beta = .32, p < .05$), exclusionism in the employment domain ($\beta = .77, p < .001$), individualism in the employment domain ($\beta = -.67, p < .001$), integrationism in the employment domain ($\beta = -.62, p < .001$), assimilationism in the cultural heritage domain ($\beta = .81, p < .001$), exclusionism in the cultural heritage domain ($\beta =$

.72, $p < .001$), integrationism in the cultural heritage domain ($\beta = -.40$, $p < .01$), intergroup anxiety ($\beta = .48$, $p < .001$), intergroup empathy ($\beta = -.45$, $p = .001$), outgroup evaluation ($\beta = -.39$, $p < .01$), ingroup bias ($\beta = .23$, $p < .10$, marginal effect).

In the second type of regression, when the dependent variable was realistic threat, in addition to the main effect of SDO, $\beta = .49$, $p < .001$, a significant interaction emerged, SDO \times target group (Chinese vs. immigrants in general and Moroccans), $\beta = -.24$, $p < .01$. The decomposition of the effect suggested that, as predicted, SDO increased perceptions of realistic threat more for immigrants in general and Moroccans, $b = 1.50$, $t = 3.40$, $p < .001$, than for Chinese, $b = .59$, $t = 2.67$, $p < .01$. When symbolic threat was the outcome variable, we obtained a main effect of SDO, $\beta = .57$, $p < .001$, qualified by a marginally significant interaction, SDO \times target group (Chinese vs. immigrants in general and Moroccans), $\beta = -.21$, $p < .07$. The decomposition of the effect was not very informative. In fact, the effects of SDO on symbolic threat when the target groups were immigrants in general and Moroccans, $b = 1.90$, $t = 3.75$, $p < .001$, and when the target group was that of Chinese, $b = .96$, $t = 3.78$, $p < .001$, were similar.

In the third type of regression, carried out for all dependent variables (acculturation orientations, intergroup attitudes, emotions), a main effect of realistic threat emerged for integrationism in the employment domain ($\beta = -.40$, $p < .05$), intergroup anxiety ($\beta = .62$, $p < .001$), intergroup empathy ($\beta = -.74$, $p < .001$), outgroup evaluation ($\beta = -.68$, $p < .001$), ingroup bias ($\beta = .70$, $p < .001$). Concerning ingroup bias, we also found an interaction involving the mediator, realistic threat \times target group (Chinese vs. immigrants in general and Moroccans), $\beta = -.32$, $p < .05$. Analyses of simple slopes revealed that realistic threat similarly increased ingroup bias when the target group was that of Chinese, $b = 6.74$, $t = 3.10$, $p < .01$, and when the target groups were immigrants in general and Moroccans, $b = 15.29$, $t = 3.22$, $p < .01$. No other relevant main effects or interactions involving realistic or symbolic threat emerged.³

Thus, we obtained evidence of moderated mediation for five outcome variables: integrationism (employment domain), intergroup anxiety, intergroup empathy, outgroup evaluation, ingroup bias (Muller et al., 2005). For all these variables, we found a moderation by target group in the path from the predictor to the mediator (second regression equation), while the main effect of the mediator on the outcome variable remained significant (third regression equation). Consistent with expectations, SDO increased the perceptions of realistic threat posed by immigrants more when the target group was represented by immigrants in general and Moroccans than when it consisted of Chinese.

DISCUSSION

The present study aimed to test realistic and symbolic threat as mediators of the relationship between SDO (Sidanius & Pratto, 1999) and acculturation orientations and, by means of comparison, between SDO and intergroup attitudes and emotions. A second aim was to examine whether participants' responses differed on the basis of the target group made salient. Participants were Italian students, who were administered one of three alternative versions of a questionnaire differing only for the target group evoked: immigrants in general, Moroccans, Chinese.

First of all, our results replicate those of previous studies, indicating that SDO was associated with decreased endorsement of positive acculturation strategies and increased acceptance of negative acculturation strategies (Andrighetto et al., 2008; Giovannini et al., in press; Hichy et

al., 2008; Mari et al., 2009; Trifiletti et al., 2007). Furthermore, they are consistent with the literature on SDT, showing detrimental effects of SDO on intergroup attitudes and emotions (Pratto et al., 2006).

Our main hypotheses concerning the mediating role of realistic and symbolic threat received partial support. In Hypothesis 2, we predicted that realistic threat would mediate the effects of SDO on acculturation orientations in the employment domain. Consistently, we found evidence of mediation on the strategy of integrationism: SDO was related to increased perceptions of realistic threat posed by immigrants which, in turn, was associated with reduced endorsement of integrationism. Thus, the higher the support for social inequalities, the stronger the perceptions that immigrants harm the material well-being of Italians and, consequently, the lower the desire to integrate them into the workplace.

In our third hypothesis we anticipated that symbolic threat would act as a mediator between SDO and acculturation orientations in the cultural heritage domain (see Hichy et al., 2008). Consistent with this expectation, we found that symbolic threat mediated the effects of SDO on the strategy of assimilationism. That is, the preference for unequal relationships among social groups increased the perception that the presence of immigrants constitutes a threat to Italian values and habits, which, in turn, was positively associated with the desire that immigrants abandon their original culture. This result makes perfect sense: the more Italians think that immigrants threaten Italian values and beliefs, the more they want immigrants to relinquish their own cultural identity, so they will no longer constitute a threat to the Italian culture.

Thus, results were consistent with our main hypotheses that realistic and symbolic threat would mediate the effects of SDO on acculturation orientations in the employment and cultural heritage domain, respectively. However, these predictions were only partially supported: first, the mediation effects were partial, suggesting that other variables may help explain the relation between SDO and acculturation orientations. For instance, other types of threat might be considered, such as outgroup stereotypes (Stephan, Diaz-Loving, & Duran, 2000). Second, mediation was obtained only for one strategy in the employment domain and for one strategy in the cultural heritage domain. This may be due to the reduced sample size, or to the fact that our participants were students. Future studies should try to replicate the present results with different and larger samples.

We also predicted (Hypothesis 4) that both realistic and symbolic threat would mediate the relation between SDO and intergroup attitudes and emotions. This prediction was strongly supported with respect to realistic threat. In fact, realistic threat totally mediated the effects of SDO on intergroup anxiety and ingroup bias, and partially mediated the relation between SDO, on one hand, and intergroup empathy and outgroup evaluation, on the other. However, no mediation effects were found with reference to symbolic threat. The present findings are consistent with previous studies (Duckitt, 2006; Esses et al., 1998, 2001; Jackson & Esses, 2000) investigating perceived outgroup competitiveness and perceptions that resources are zero-sum, which closely resemble our conceptualization of realistic threat, as mediators between SDO and intergroup attitudes. These results can also be interpreted in light of the ITT (Stephan & Stephan, 1996, 2000; see also Morrison & Ybarra, 2008, 2009; Rohmann et al., 2006), stating that members of powerful groups, compared to low-power group members, might be more concerned with realistic than symbolic threat, so as to protect their advantaged position. Further, it is possible that, in a period of economic crisis, such as the one the world was experiencing at the time the

data of the present study were collected, material threats and harm to the ingroup economical well-being may be more salient to members of the host majority, who are afraid of losing economic power; this heightened salience of material threats, in turn, is associated with more negative intergroup attitudes and emotions. The latter explanation opens up the intriguing hypothesis that, in a period of generalized prosperity, other types of threat, such as symbolic threats, might be salient and drive the effects of the support for social inequalities on intergroup attitudes and emotions. Future research might fruitfully address this possibility.

A second aim of this study was to examine if acculturation orientations, intergroup attitudes and emotions were more positive for the valued group (Chinese) than for the devalued group (Moroccans) and the general category of immigrants (Hypothesis 1). Although the pattern of means was generally consistent with the idea that our participants were oriented more positively toward Chinese and, in some cases, toward immigrants in general, than toward Moroccans, most of the effects were weak or nonsignificant. However, we reasoned that the target group might *moderate* the mediation effects obtained, that is, the potency of the mediating process (through realistic and symbolic threat) could depend on the moderator (target group). The pattern of results obtained for moderated mediation was highly consistent. Moderated mediation was obtained for all variables in which a mediation effect by realistic threat was detected: integrationism (employment domain), intergroup anxiety, intergroup empathy, outgroup evaluation, ingroup bias. In all cases, moderation by target group was found in the path from the predictor (i.e., SDO) to the mediator (i.e., realistic threat): SDO was associated with increased perceptions of realistic threat more for immigrants in general and Moroccans than for Chinese.

These findings are in line with the hypothesis that participants' intergroup perceptions differ on the basis of the target group evoked. In particular, the mediation effects found for realistic threat depend on the target group, in the sense that the desire for social inequalities affects the perceptions that the presence of immigrants represents a material threat more when a devalued group (Moroccans) or the general category of immigrants (which is likely to be associated with negatively evaluated immigrant groups), rather than a valued group (Chinese), is salient. A possible explanation is that Chinese are generally considered as a special immigrant group, whose members like to live and work separately from Italians. Thus, because they do not appear to directly attempt to "steal" Italian jobs and attain Italian material resources, they are less likely to be perceived as a realistic threat than other immigrant groups. It is also possible that the results would differ when considering a population of workers. Future studies should investigate these possibilities more closely and examine whether the present findings are different when other valued immigrant groups, more integrated in the Italian society, are salient.

In the present study we have tested SDO (Sidanius & Pratto, 1999) as a determinant of acculturation orientations, intergroup attitudes and emotions. However, other factors might work as antecedents of the constructs examined, such as ingroup identification (Andrighetto et al., 2008; Capozza & Vezzali, 2009; Falvo, Capozza, Dovidio, & Vezzali, 2006), political orientation (Capozza, Trifiletti, Vezzali, & Andrighetto, 2009; Trifiletti et al., 2007), intergroup contact (Barrette et al., 2004; Capozza et al., 2010; Montreuil & Bourhis, 2004; Vezzali, Capozza, Mari, & Hichy, 2007).

We are not aware of other studies investigating realistic and symbolic threat as mediators of the relation between SDO and acculturation orientations. Previous research did not address potentially explanatory mechanisms driving the effects of SDO on acculturation attitudes (for ex-

ceptions, see Andrighetto et al., 2008; Hichy et al., 2008). However, we believe that a better understanding of the processes by which SDO affects the endorsement of acceptance and refusal acculturation strategies is extremely important, also in light of the present results, which suggest that different processes, whose strength depend on the salient target group, might account for acculturation orientations in different domains (see Van Oudenhoven, Ward, & Masgoret, 2006).

The present results have important practical implications. Interventions aimed to foster the acceptance of immigrants should be differentiated according to the domain to which they are directed. For instance, if the goal of the intervention is to increase integration in the workplace, or improve intergroup attitudes and emotions, the focus should be placed on reducing the perceptions that immigrants harm the material well-being of Italians. Alternatively, if the aim is to improve the acceptance of immigrants in a more abstract domain, such as that of cultural heritage, practitioners should focus on reducing perceptions that the values and habits of immigrants threaten those of Italians.

Despite its theoretical and practical implications, our research has some limitations. First, data are correlational. SDO was tested as a predictor because it is considered as a fairly stable construct (Sidanius & Pratto, 1999); however, other combinations of the variables used are possible. Second, our participants were university students, thus limiting the generalizability of results. Third, the sample was made up mainly of females. However, since SDO is generally higher and has more effects on intergroup relations for men than for women (Pratto et al., 2006), it is possible that stronger effects are found with a more balanced sample. A further limitation is that all participants belonged to the majority group. It is possible that the effects of SDO would be weaker for minority group members, and possibly driven by different processes. Finally, we did not assess the integrationism with transformation strategy (see, e.g., Barrette et al., 2005; Montreuil et al., 2004; Safdar et al., 2008), not to further increase the length of the questionnaire and the complexity of the task. However, because integrationism with transformation implies a deeper acceptance of immigrants, compared with the simple integration strategy, future research should necessarily consider the processes driving the effects of SDO on this orientation.

In conclusion, realistic and symbolic threat are important factors which can explain how the desire for social hierarchies differently influences acculturation orientations in distinct domains, intergroup attitudes and emotions. Finding out the processes by which this influential variable affects intergroup relations, depending on the salient immigrant group, is especially important and can enable us to design more effective strategies for prejudice reduction.

NOTES

1. It is worth noting that, when the effects of symbolic threat were not controlled for, realistic threat mediated the relationship between SDO and the five acculturation strategies in the employment domain: $z = 1.76, p < .08$, for assimilationism (marginal effect); $z = 1.63, p = .10$, for segregationism (marginal effect); $z = 2.34, p < .05$, for exclusionism; $z = 1.87, p < .07$, for individualism (marginal effect); $z = 2.92, p < .01$, for integrationism.
2. When the effects of SDO and symbolic threat were assessed without controlling for realistic threat, symbolic threat mediated the relationship between SDO and both assimilationism ($z = 2.53, p < .05$) and exclusionism ($z = 2.46, p < .05$).
3. We also found a mediator \times moderator interaction, symbolic threat \times target group (Chinese vs. immigrants in general and Moroccans), on the measures of outgroup evaluation and ingroup bias: $\beta = -.32, p < .05$, for outgroup evaluation; $\beta = .31, p < .05$, for ingroup bias. For outgroup evaluation, analyses of simple slopes revealed that, unexpectedly, symbolic threat tended to increase positive outgroup evalua-

tion when the target groups were immigrants in general and Moroccans, $b = 6.17$, $t = 1.96$, $p < .06$ (marginal effect), whereas it had no effects when the target group was Chinese, $b = -.51$, $t = .32$, ns . Concerning ingroup bias, simple slope analyses indicated a nonsignificant tendency for symbolic threat to increase ingroup bias when the target group was Chinese, $b = 3.32$, $t = 1.79$, $p < .08$, whereas symbolic threat did not affect ingroup bias when the target groups were immigrants in general and Moroccans, $b = -4.00$, $t = 1.02$, ns . These effects, however, did not attain statistical significance, thus showing no evidence of moderated mediation concerning symbolic threat (Muller et al., 2005).

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