

## Comparing intergroup contact effects on blatant and subtle prejudice in adolescents: A multivariate multilevel model

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### Abstract

**Background:** The literature has rarely paid attention to the differential influence of intergroup contact on subtle and blatant prejudice. In this study, we hypothesized that the influence of intergroup contact on subtle prejudice will be smaller than its influence on blatant prejudice. **Method:** This hypothesis was tested with data from a cross-sectional design on 1,655 school-aged native Spanish adolescents. Prejudice was measured with a shortened version of the Meertens and Pettigrew scale of blatant and subtle prejudice adapted to Spanish adolescent population. **Results:** Results from multivariate multilevel analyses for correlated outcome variables supported the hypothesis. Students tended to score higher on the subtle prejudice scale; contact with the outgroup was statistically related both to levels of blatant and subtle prejudice; and, the negative relationship of contact with the outgroup and prejudice is greater for blatant prejudice as compared to subtle prejudice. **Conclusions:** Overall, results provide statistical evidence supporting the greater resistance to change of subtle forms of prejudice.

**Keywords:** Subtle prejudice, blatant prejudice, contact hypothesis, multilevel analysis, adolescents.

### Resumen

*Comparando el efecto del contacto intergrupar en el prejuicio manifiesto y sutil en adolescentes: un modelo multinivel multivariado.*

**Antecedentes:** la literatura rara vez ha prestado atención a la diferente influencia que el contacto con el exogrupo ejerce en el prejuicio manifiesto y sutil. En este estudio hipotetizamos que el contacto con el exogrupo influye de forma más acusada en las formas manifiestas del prejuicio, por lo que el prejuicio sutil es más resistente al cambio. **Método:** se contrastaron estas tres hipótesis con un diseño correlacional en una muestra de 1.655 adolescentes españoles escolarizados. El prejuicio manifiesto y sutil se evaluó con una versión breve adaptada a la población adolescente española de la escala de prejuicio sutil y manifiesto de Meertens y Pettigrew.

**Resultados:** los resultados de los análisis multivariados multinivel para variables dependientes correlacionadas confirmaron las hipótesis. Los estudiantes tendieron a puntuar más en prejuicio sutil que en manifiesto; la relación estadística entre el contacto con el exogrupo y el prejuicio es negativa (a mayor contacto, menor prejuicio); y esta relación negativa es más acusada en el caso del prejuicio manifiesto. **Conclusiones:** los resultados proporcionan evidencia estadística que apoya la mayor resistencia al cambio del prejuicio sutil en comparación con el prejuicio manifiesto.

**Palabras clave:** prejuicio sutil, prejuicio manifiesto, hipótesis del contacto, análisis multinivel, adolescentes.

Throughout decades, researchers have paid attention to the meaning, measurement, etiology and consequences of prejudice and, also, to the potential reduction of prejudice by different means (see Paluck & Green, 2009, for a review of theories and methods).

Among the various mechanisms that have been proposed to reduce prejudice, the contact hypothesis (Allport, 1954) maintains that prejudice between opposing groups can be reduced by bringing them together under optimal conditions that include equal status, cooperation toward a common goal, institutional

support, and acquaintance or friendship potential. As Pettigrew and Tropp (2006) acknowledged in their review of the contact hypothesis, while under these conditions, prejudice reduction is greater, the meta-analytic findings indicate that these conditions are not essential for prejudice reduction. This field of inquiry is still growing and capturing the attention of researchers to a variety of intergroup contexts beyond its original focus on racial and ethnic groups, different measures of prejudice or different types of contact, to mention a few (Barlow et al., 2012; Cook, 1984; Harrington & Miller, 1992; Hewstone & Swart, 2011; Jackson, 1993; Paluck & Green, 2009; Pettigrew & Tropp, 2006).

Despite the fact that the contact hypothesis has drawn the attention of researchers during the last six decades, it has rarely explicitly echoed the distinction between traditional and modern forms of prejudice (Hamberger & Hewstone, 1997; Pettigrew, 2007; Pettigrew & Meertens, 1995). This distinction refers to the fact that, in modern societies, certain types of behavior

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and opinions about the outgroup, which indicate blatant forms of prejudice and discrimination in terms of race, sex, age or sexual condition, are increasingly being considered politically incorrect, giving rise to new forms of prejudice, such as modern (McConahay, 1986), or subtle (Meertens & Pettigrew, 1992) prejudice. According to this, societies appear to censure blatant prejudice and it is less likely to be manifested in public (Meertens & Pettigrew, 1992). Thus, measurement of manifest or traditional prejudice does not capture social realities because people provide politically correct responses and, as a result, decreasing levels of this type of prejudice are observed while a more subtle or modern prejudice could remain relatively high among citizens. Research showing that (subtle) prejudicial individuals might score low on blatant prejudice (Dhont, Roets, & Van Hiel, 2011; Hamberger & Hewstone, 1997; Pettigrew & Meertens, 1995; White et al., 2009) is in accordance with this idea.

Because modern or subtle prejudice involves the rejection of traditional prejudicial beliefs and the displacement of prejudicial feelings onto more abstract social and political issues, subtle prejudicial individuals might be relatively unaware of their prejudicial feelings (see Blanton & Jaccard, 2008; Quillian, 2008, for critical analyses of unconscious racism). Hence, social desirability plays a much less important role in the reduction of subtle prejudice. In other words, a social context where certain behaviors and opinions about the outgroup tend to disappear from the public sphere might deactivate the traditional (blatant) prejudices toward different groups (Kawakami & Dovidio, 2001) but might leave the less recognizable (subtle) prejudice relatively unaltered. Our hypothesis is that this pervasive and unaware nature of subtle prejudice makes it more resistant to change in an inter-group contact context. Then, one would expect that contact with the outgroup would reduce to a greater extent blatant than subtle prejudice.

A large body of research indicates that children develop early ethnic attitudes between 5 and 7 years of age (Aboud & Amato 2001; Cristol & Gimbert, 2008) and reduction in prejudice is expected with increasing age from 10 to 20 years. During this period, prejudicial attitude reaches its peak (White et al., 2009), and it is presumably more malleable than in further stages of development (Pettigrew & Tropp, 2006).

An impressive number of studies have shown that adolescence prejudice decreased following contact using both longitudinal (Binder et al., 2009; Brown, Eller, Leeds, & Stace, 2007) and cross-sectional (see Pettigrew & Tropp, 2006 for a review) designs.

Of particular interest are longitudinal studies, where the contact effect (reduction in prejudice following contact) may be differentiated from simple rejection (prejudicial individuals avoiding contact with members of the outgroup). In this sense, Dhont, Van Hiel, De Bolle & Roets (2012) found in a sample of young adults that higher levels of intergroup contact were followed by larger subsequent decreases in prejudice. Similar findings supporting the contact hypothesis have been confirmed in other longitudinal studies with college students (Levin's, Van Laar, & Sidanius, 2003) and adolescents (Binder et al., 2009; Swart, Hewstone, Christ, & Voci, 2011).

In the present study we analyze the role that intergroup contact plays in prejudice reduction in school-aged adolescents. Specifically, we maintain that, when compared to blatant prejudice, subtle prejudice is less recognizable (people are almost not aware of it), it is more pervasive and, also, more resistant to change. Thus,

we hypothesize that the influence of intergroup contact on subtle prejudice will be smaller than its influence on blatant prejudice.

Research documenting this differential effect of intergroup contact on blatant and subtle prejudice is scarce and always centered on the adult population. In Hamberger and Hewstone's (1997) study of the effects of intergroup contact on blatant and subtle prejudice in four European countries, they found that results were similar for both types of prejudice (contact reduced prejudice), but the prediction was much weaker for subtle prejudice. In their path analysis results, Hamberger and Hewstone (1997) found that, with one exception (Dutch samples), education, national pride, value orientation, and three types of inter-group contact (neighbors, co-workers, and friends) accounted for 20-35% of blatant prejudice variance, while only 8-10% of subtle prejudice variance (with the exception of French samples). They attributed these results to the lower variance found for subtle prejudice as compared to blatant prejudice. Alternatively, Pettigrew and Meertens (1995) using the same data of Hamberger and Hewstone's study (1997) reported lower regression coefficients for intergroup contact and blatant prejudice than for subtle prejudice. Pettigrew (1997) showed how intergroup friendship effects would generalize even to outgroups with which there had been no contact. In these studies, however, no formal test was made to ascertain whether the effects of intergroup contact on blatant and subtle prejudice differed statistically.

In this study, we present a formal test of this hypothesis in a large sample of school-aged native adolescents in Spain using HLM software to estimate multivariate multilevel regression models, which imply a multilevel structure (students nested within schools) and correlated outcome variables (subtle and blatant measures of prejudice). Final models incorporated potentially relevant covariates of both blatant and subtle prejudice such as gender, age, socioeconomic status, political ideology, and type of school (urban vs. rural) (see Franssen, Dhont, & Hiel, 2012; Rodríguez, Herrero, Ovejero, & Torres, 2009). Previous research with adolescents has found, for example, that both types of prejudice are more characteristic of males and those who have a right-wing ideology. Also, blatant prejudice seems to be more prevalent among younger adolescents and those who live in rural environments. This sociological distribution has not been observed for subtle prejudice, where levels of prejudice are similar in rural and urban environments and among adolescents of different ages (Rodríguez et al., 2009).

In sum, our main objective is to ascertain for native adolescents if contact with the outgroup has the same influence on blatant and subtle prejudice toward immigrants. Based on our previous review of the literature on the contact hypothesis and modern or subtle prejudice we predict that contact with the outgroup will show a greater negative influence in blatant prejudice as compared to subtle prejudice. HLM allows for formally testing the differential effects of intergroup contact on both types of prejudice by statistically comparing their individual regression coefficients (slopes) (Goldstein, 2003; Raudenbush & Bryk, 2002; Raudenbush, Bryk, Cheong, Congdon, & du Toit, 2004).

## Method

### *Participants*

The participants in the study were 1,655 school-aged native Spanish adolescents in the region of Asturias (Spain) of both

genders (48.7% males and 51.3% females), aged from 12 and 18 (mean = 15.16,  $SD = 1.39$ ), and the majority of whom have the perception of coming from a medium-level socioeconomic background (89.8% compared to 7.6% who feel they come from a high-level background and 2.6% from a low-level one). Regarding the level of studies of the participants, 68 (3.8%) were in the first year of Compulsory Secondary Education (CSE), 237 in the second year (13.3%), 296 in the third year (16.6%), 859 in the fourth year (48.2%) and 322 were in the last two years of High-school (18.1%).

### Variables

*Sociodemographic characteristics.* Information was obtained on age (in years), gender (1 = male; 2 = female), socio-economic level (1 = low; 2 = medium; 3 = high), and type of school (1 = rural and 2 = urban).

*Political ideology.* We evaluated the political position of adolescents according to where they place themselves on a 10-point scale, ranging from the extreme left (1) to the extreme right (10).

*Contact with the outgroup.* Respondents were asked whether they had been in contact with immigrants and, if so, to indicate the degree of contact. Responses were coded 1 (*no contact or minimum contact*), 2 (*some contact*), and 3 (*close or intimate contact*). Distribution of responses was as follows: no contact,  $n = 919$  (55.5%); some contact,  $n = 508$  (30.7%); close contact,  $n = 228$  (13.8%).

*Blatant and subtle prejudice scales.* We used a shortened version of the Meertens and Pettigrew (1992) Scale of Blatant and Subtle Prejudice (Rodríguez et al., 2009) adapted to Spanish adolescent population. The original Blatant Prejudice Scale comprises a subscale of Rejection and Threat (6 items) and another of Intimacy (4 items). The original subtle Prejudice Scale has three sub-scales: Traditional Prejudice (4 items), Cultural Prejudice (4 items), and Affective Prejudice (2 items). This original factor structure, however, has not always been found in other studies. For instance, Coenders, Scheepers, Sniderman, and Verberk (2001) could not empirically confirm the two types of prejudice, while Rodríguez et al. (2009) found evidence for only two general dimensions of blatant and subtle prejudice when analyzing adolescent responses. For this study, we used the short version of the Meertens and Pettigrew Scale which comprises 8 items for the Blatant Prejudice Scale ( $\alpha = .85$ ) and 5 items for the Subtle Prejudice Scale ( $\alpha = .70$ ) (Rodríguez et al., 2009). The 8-item Blatant Prejudice Scale comprises 4 items from the Threat and Rejection original scale and 4 items from the Intimacy original scale. The 5-item Subtle Prejudice Scale comprises 3 items from the Traditional Prejudice original scale and 2 items from the Cultural Prejudice original scale. Blatant and Subtle Prejudice Scale scores were rescaled to fit in a 1-5 range, and, thus, make comparisons possible. Correlation between the two scales was  $r = .56$  ( $p < .001$ ).

### Procedure

The questionnaire was distributed in several high schools in the region of Asturias (Spain). The participants come from 20 secondary-level schools, 14 in urban areas and 6 in rural areas. The participants were selected using two-stage stratified sampling, with the schools being selected in the first stage and the students

in the second stage. The schools selected are representative of the region of Asturias, with greater representation of urban-based schools. Following a series of contacts with Principals, a common agenda for applying the instruments was established. During these rounds of contacts, the researchers explained the objectives of the study and emphasis was placed on the voluntary nature of participation.

### Data analyses

To ascertain whether contact with the outgroup has the same influence on native adolescent levels of blatant and subtle prejudice toward immigrants we estimated several multilevel models. First, we needed to impose an additional level to model correlated outputs (Level-1) that reflects within-student variation of blatant and subtle scores. Level-2 is student-level and reflects between-students variations. Finally, Level-3 reflects variations of blatant and subtle scores between-schools. Since our interest was to analyze the associations of the covariates of the study with the two outcome variables (blatant and subtle prejudice) we estimated multivariate multilevel models using the HMLM2 module of the statistical package HLM. Multivariate multilevel modeling allows estimating the association of each covariate with a set of intercorrelated outcome variables, while accounting for the hierarchical structure of the data. This procedure has the advantage that allows statistical comparison between regression slopes. For instance, it allows answering questions such as: is the reduction in subtle prejudice lower than that for blatant prejudice for a level of some contact? To obtain such a response, MLM2 statistically compares the unstandardized regression coefficient for the level of some contact on both outcome variables (blatant and subtle prejudice). Rejecting the null hypothesis would mean that the slopes of contact-blatant prejudice and the slopes of contact-subtle prejudice for a level of some contact are not equal. Then, a comparison of coefficients' magnitudes and directions, would allow a statistical answer to the question to be obtained.

We checked for multicollinearity problems among predictors examining the Variance Inflation Factor (VIF), all off-diagonal elements in the variance-covariance (Tau) matrix for correlations close to 1 or -1, and the diagonal elements for any elements close to zero, with no indication of multicollinearity.

The multilevel analyses were performed in two steps. The starting point was an empty model without explanatory variables in which the total variance of blatant and subtle prejudice was partitioned into a component at Level-2 and Level-3. This model (empty model) was used to test if there was any random variation of the outcome variables at different levels and, consequently, if a multilevel approach was reasonable. In the second step we explored fixed effects of variables at the student and school level and tested for significant differences for the two outcome variables.

## Results

### Multilevel analyses

The results for each of the models estimated are presented in Table 1. At the bottom of Table 1 we present results for the empty or unconditional model. Random variation of intercepts is statistically significant both at the student (variance component = 0.36,  $SE = 0.02$ ,  $p < .001$ ) and school (variance component = 0.16,  $SE = 0.05$ ,

$p < .001$ ) levels, suggesting that a multilevel approach is justified. We also present student and school-level random variation for the final model. Although there is still some statistically significant variation of intercepts unexplained by the final model both across students (0.29) and across schools (0.11), there is a reduction of random variation of intercepts across students and schools. Also, model deviance is lower in the final model.

In the upper part of Table 1 we present results for the final model. On average, students tended to score higher on the subtle prejudice scale ( $M = 3.20, SE = 0.08, p < .001$ ) than on the blatant prejudice scale ( $M = 2.30, SE = 0.06, p < .006$ ). This difference was statistically significant ( $M_{subtle} - M_{blatant} = 0.90, SE = 0.05, t = 19.81, p < .001$ ).

Examining the fixed effects at student-level (Level-2), we see that the pattern of statistical covariates for both types of prejudice differ. Blatant prejudice is influenced by all of the covariates of the study. At the school-level (Level-3), average blatant prejudice is also greater in rural schools. As for subtle scores, student-level fixed effects suggest that only ideology and gender are significantly related to subtle prejudice. At the school-level (Level 3), school means on subtle prejudice did not differ in rural and urban areas.

The results also show that levels of contact with immigrants were statistically related to both blatant and subtle prejudice. Adolescents with some contact with immigrants presented a significant reduction in blatant prejudice ( $b = -0.40, SE = 0.05, p < .001$ ) as compared to adolescents with no contact. For adolescents with close contact with immigrants this reduction in blatant prejudice is also significant ( $b = -0.53, SE = 0.06, p < .001$ ). The same applies to subtle prejudice: Adolescents with some

contact present lower subtle prejudice than adolescents with no contact ( $b = -0.30, SE = 0.04, p < .001$ ); moreover, adolescents with close contact present lower levels of subtle prejudice ( $b = -0.38, SE = 0.06, p < .001$ ) than adolescents with no contact. These results indicate that, beyond the influential covariates of the study, levels of contact with immigrants are negatively and significantly related to blatant and subtle prejudice.

A related yet different question is whether regression slopes for some and close contact are statistically different for blatant and subtle prejudice. For some contact, the unstandardized coefficient for blatant prejudice is greater in absolute terms than the unstandardized coefficient for subtle prejudice (difference =  $-.10, p = .03$ ); the slopes of some contact for blatant and subtle prejudice are statistically different. The same applies to the unstandardized coefficients in the close contact condition (difference =  $-.15, p = .02$ ): The slopes of close contact for blatant and subtle prejudice are statistically different. According to this, the reduction in the blatant prejudice scores as compared to subtle prejudice scores is greater in both the some contact and close contact conditions.

### Discussion

The role of intergroup contact in reducing prejudice has been widely accepted since Allport's (1954) original formulation and a vast array of empirical evidence supporting this claim is available to researchers (see recent reviews in Hewstone & Swart, 2011; Pettigrew & Tropp, 2006). Less scholarly attention has been directed, however, to the potential differential effect that intergroup contact might have on the blatant and subtle forms of prejudice. Although there is some indirect evidence suggesting that subtle prejudice could be more resistant to change than blatant prejudice in the context of intergroup contact (see examples in Hamberger & Hewstone's, 1997; Rodríguez et al., 2009), to our knowledge, no formal test of this difference has been provided. In this study, we tested this assumption on 1,655 school-aged native Spanish adolescents living in Asturias (Spain).

We found that blatant and subtle prejudice scores were lower for those adolescents with intergroup contact, after accounting for the potentially confounding effect of other covariates on prejudice. This finding is in accordance with the abundant empirical evidence from experimental, quasi-experimental, correlational and longitudinal designs, which clearly indicates that intergroup contact reduces prejudice (see reviews of studies in Hewstone & Swart, 2011; Pettigrew & Tropp, 2006). Also, levels of blatant prejudice were lower than levels of subtle prejudice. This is in line with theorists who underline how the measurement of manifest prejudice in modern societies provides politically correct responses, thereby artificially lowering scores on manifest prejudice even though citizens of these societies may still be prejudicial individuals. Terms such as modern (McConahay 1986) or subtle (Meertens & Pettigrew, 1992) prejudice point to the existence of a new form of prejudice which is politically correct and makes people relatively unaware of their prejudicial feelings. While public opinion might have deactivated traditional (blatant) prejudice to some extent, subtle prejudice would serve as an indicator of the true level of prejudice in a society.

On average, adolescents scored significantly higher on subtle prejudice as compared to blatant prejudice. Our finding is in line with existing research (see Pettigrew & Meertens, 1995) suggesting that subtle prejudicial individuals might score low on

*Table 1*  
Unstandardized coefficients results of multilevel regression analyses (N = 1,655)

	Blatant prejudice			Subtle prejudice		
	Coefficient b	S.E.	p	Coefficient b	S.E.	p
Intercept	2.30	0.06	<.001	3.20	0.08	<.001
Fixed effects						
Student-Level						
Girls <sup>1</sup>	-0.36	0.04	<.001	-0.21	0.04	<.001
Age	-0.04	0.02	.037	-0.02	0.02	.363
Socioeconomic status	-0.14	0.07	.032	-0.08	0.06	.178
Political ideology <sup>2</sup>	0.06	0.01	<.001	0.04	0.01	<.001
Contact <sup>1</sup>						
Medium contact	-0.40	0.05	<.001	-0.30	0.04	<.001
Close contact	-0.53	0.06	<.001	-0.38	0.06	<.001
School-Level						
Rural <sup>1</sup>	0.26	0.12	.044	0.17	0.17	.319
Random effects	Empty model			Final model		
	Variance component	S.E.	p	Variance component	S.E.	P
Student-Level	0.36	0.02	<.001	0.29	0.02	<.001
School-Level	0.16	0.05	<.001	0.11	0.02	0.05
Model deviance	7694.95			7424.37		

<sup>1</sup> Category references are: boys, urban, and no contact  
<sup>2</sup> Higher values indicate more conservative political ideology

blatant prejudice. This implies that researchers focusing only on the measurement of blatant or traditional prejudice may arrive at the false conclusion that prejudice is disappearing from society.

Also, while sociodemographic variables such as gender, age, socioeconomic status and political ideology were related to blatant prejudice, only gender and political ideology showed a statistical relationship to subtle prejudice. According to this, blatant prejudice would seem to be disappearing in some subgroups of adolescents (especially among girls, late adolescents, those with high socioeconomic status, and those with a non right-wing ideology) whereas subtle prejudice seems to be evenly distributed among adolescents across different ages and socioeconomic status. According to Kawakami and Dovidio (2001), when certain behaviors and opinions about the outgroup tend to disappear from the public sphere, the traditional (blatant) prejudices toward different groups might be deactivated, though it may leave the less recognizable (subtle) prejudice relatively unaltered.

Apart from being a cool, distant, and indirect prejudice (Pettigrew & Meertens, 1995), we hypothesized that the pervasive and unrecognized nature of subtle prejudice may make it more resistant to elimination. In the context of the contact hypothesis, we formally postulated that the influence of intergroup contact on subtle prejudice would be smaller than its influence on blatant prejudice. Our findings have allowed us to corroborate this hypothesis. Results from multivariate multilevel regression models indicated that although intergroup contact was negatively related both to blatant and subtle prejudice, the negative relationship between contact and prejudice was greater for blatant prejudice in both 'some' and 'close' intergroup contact conditions. As suggested both by theory (McConahay 1983, 1986; Meertens & Pettigrew, 1992; Pettigrew & Meertens, 1995) and the observed indirect evidence (Hamberger & Hewstone, 1997; Pettigrew & Meertens, 1995; White et al., 2009), new forms of (subtle) prejudice are widespread in society and seem to be more resistant to change than traditional forms of prejudice. This social acceptability of prejudicial values might be closely related to discrimination and even aggression among individuals belonging to those social contexts (see examples for violence against women in Gracia & Herrero, 2006; Gracia, Herrero, Lila, & Fuente, 2009).

Our results provide statistical evidence supporting the greater resistance to change of subtle forms of prejudice, although we should be cautious in interpreting these results due to potential limitations of the study. The main limitation is that the data is cross-sectional and no causal link may be claimed: Intergroup contact might reduce prejudice or, alternatively, prejudice might reduce contact. Longitudinal research on contact hypothesis has found, however, that although both types of effects are observed, the contact effect is usually greater. For instance, in Binder et al.'s (2009) longitudinal study of 1,665 school-aged adolescents, higher

levels of interethnic contact were predictive of more positive intergroup attitudes after six months, after controlling for the initial prejudicial attitudes and the intergroup contact observed after six months (cross-lagged effect). The longitudinal study of Levin et al. (2003) with more than 2,000 White, Asian, Latino, and African American college students, the results indicated that beyond the effect of prior ethnic attitudes and orientations on friendship choices, those with more outgroup friendships and fewer ingroup friendships during their second and third years of college showed less ingroup bias at the end of college. Swart et al. (2011) conducted a three-wave study among 465 minority-status high school children in South Africa where they found that cross-group friendships were positively associated with positive outgroup attitudes across time, lending support to the contact hypothesis (see Hewstone & Swart, 2011 for a review of longitudinal studies). Thus, although part of the negative relationship found in our study between contact and prejudice might be due to the reverse path (prejudicial attitudes reduce contact), according to the literature an important part of this relationship reflects the effect of contact on attitudes. Undoubtedly, longitudinal designs may shed new light in the study of the differential effects of contact on both blatant and subtle prejudice.

Another potential limitation is the limited measure of intergroup contact used in the study. Although our study uses a measure of contact that includes frequency and degree of contact (from no contact at all to intimate contact), a more comprehensive measure of contact (perhaps including the frequency, the degree or the satisfaction with the contact along with various types of contact such as positive and negative contact) could permit a better understanding of the covariation among the contact measures and prejudice measures.

Although more research taking into account these potential limitations is needed, our results suggest that subtle prejudice is more widespread among adolescents than blatant prejudice and, also, it is less associated with intergroup contact. In other words, subtle or modern prejudice is less evident in society and, at the same time, more resistant to change through intergroup contact. If, as some authors have pointed out, intergroup contact appears to be a key ingredient for the social integration of minorities in modern and multicultural societies (Tausch et al., 2010), a deeper understanding of mechanisms that maximize contact effects on subtle prejudice remain a challenge for future research on prejudice reduction.

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