Translating recategorization strategies into an antibias educational intervention

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Abstract

This experiment explored whether the benefits of a complete recategorization and a dual identity might effectively be translated into an intervention program designed to reduce prejudice among European Portuguese and African Portuguese 9- to 11-year-old children. Participants interacted for 45 minutes in weekly sessions for a month. One month after the last interaction, measures were administered to the children. Results revealed that only recategorization reduced prejudice over time relative to the control condition. Consistent with a functional perspective regarding which representation would most effectively promote their group's goals, a one-group representation was more effective for the African Portuguese minority group.

"(. . .) the theorist does not look toward applied problems with highbrow aversion or with fear of social problems, and if the applied psychologist realizes that there is nothing so practical as a good theory." (Lewin, 1951, p. 169)

Several authors suggest that there has been a significant deficiency in merging practitioners and researchers' perspectives, which limits the process of translating social psychology theoretical models into interventions designed to improve intergroup relations (Aboud & Fenwick, 1999; Aboud & Levy, 2000; Bigler, 1999; Vogt, 2004). Early social psychological investigations of intergroup relations were characterized by a high involvement of communities and had a direct commitment to application. However, this bond between research and practice has decreased over the past decades (Nagda, Tropp, & Paluck, 2006). In the present research, we explored whether the benefits of different category-based strategies can be effectively translated into an antibias intervention program designed to reduce prejudice and improve inter-group attitudes in childhood. Also, we examined the effectiveness of different strategies among children of both majority and minority status groups, extending prior research on this topic, which has been predominantly conducted with White majority children (Levy et al., 2005; Stephan, 1999).

In addressing these issues, we consider a major challenge for researchers, i.e., to simultaneously evaluate different antibias interventions used in school settings while continuing to investigate, in more controlled settings, the mechanisms that contribute to prejudice reduction. We believe that such an enterprise requires a stronger partnership between social and developmental approaches, as well as between practitioners and researchers.

Translating category-based models into practice

Aboud and Levy (2000) suggest that there has been difficulty in involving researchers in the development of school

programs to reduce prejudice so that practitioners had to rely on their creativity to produce interventions. Within the social psychological literature, the emphasis on intergroup relations and attitudes research has focused on developing theoretical accounts of the origins of prejudice, while far less attention has been paid to developing interventions (Bigler, 1999). Developmental psychology, on the other hand, has traditionally focused on the origins, acquisition, and age-related changes in children's reasoning about social justice and social relationships (Killen & McKown, 2005). We suggest that crossing developmental and social psychological approaches has major advantages, both for enhancing the theoretical understanding of how to overcome prejudice in an enduring way and for the practical implications regarding tools for policy-makers in the broader educational field.

The common in-group identity model

According to Gaertner and Dovidio (2000), intergroup attitudes would be more positive (or less negative) if during contact members of different groups regarded the aggregate primarily as a team, instead of two separate groups. Recategorization as a "team" can occur in two forms. One form involves recategorization as one superordinate team, without members thinking of their separate group identities, a representation activated by intergroup cooperation (Gaertner, Mann, Dovidio, Murrell, & Pomare, 1990). An alternative "team" representation is a hybrid in which group members conceive of themselves as different groups but playing on the same team. In essence, this dual identity representation emphasizes both the separate group identities as well as the common team connection elicited by their cooperation toward mutual goals, similar to Hewstone and Brown's (1986) concept of mutual differentiation. In practice, for example, people may recognize different identities, roles, and functions between groups while also experiencing a common connection (e.g., offensive and defensive squads on the same team in American football; see Gaertner, Mann, Murrell, & Dovidio, 1989). The model has received strong empirical support mainly with adults and among White majority groups (Gaertner & Dovidio, 2000; Gaertner et al., 1990; Gaertner, Rust, Dovidio, Bachman, & Anastasio, 1994; Gaertner et al., 1999; González & Brown, 2006).

Previous developmental research, however, showed that children as old as 7–8 years can consider simultaneously multiple classifications, i.e., subordinate and superordinate categories (Aboud, 2003; Bigler, 1995; Bigler & Liben, 1992). According to the cognitive-developmental approach (Aboud, 1988), children around 8 years old acquire the ability to perceive similarities among members of different groups, and this relates to a decrease in prejudice. Indeed, there is evidence to support the effectiveness of a recategorization approach to improve children's intergroup attitudes (Cameron, Rutland,

Brown, & Douch, 2006; Guerra, Rebelo, & Monteiro, 2004; Houlette et al., 2004).

Cameron et al. (2006) examined the effectiveness of extended contact interventions to improve majority British children's attitudes toward refugees. Children read stories involving in-group members who had close friendships with out-group members, emphasizing either only their common identity (school), both their common identity and the characters' subgroup membership (refugee and English), or the individual qualities of the refugee. Results revealed that both recategorization and dual identity relative to a control condition improved children's out-group attitudes. Nonetheless, the authors also found that among the extended contact interventions, dual identity was the most effective at improving children's attitudes toward refugees. Houlette et al. (2004) also showed that elementary schoolchildren who participated in an intervention that emphasized their common identity revealed positive changes in their willingness to make cross-group friendships. First and second graders were induced (over a 4 week period) to develop more "inclusive circles of caring" to reduce different types of bias. The major assumption of the intervention was similar to the common in-group identity model, i.e., that helping children expand their circles of caring fosters appreciation of their common humanity as well as respect for their differences. The program was designed to promote intergroup awareness, understanding, and cooperation, and children engaged in a variety of exercises designed to expand their circles of caring. Despite the reliable changes in the willingness to make cross-group friendships, overall, the intervention did not have a particularly large impact on participants' attitudes toward children of a different sex or race or body size.

Despite these encouraging results, the vast majority of antibias programs are still often implemented without an assessment of their effectiveness, and predominately conducted with White majority children (Levy et al., 2005). Consistent with this reasoning, Pettigrew and Tropp's meta-analytic work revealed that the beneficial effects of contact are less pronounced for members of minority groups relative to majority group members (Tropp & Pettigrew, 2005). Thus, the core question for contemporary researchers and practitioners is no longer the issue of whether or not intergroup contact is beneficial, but rather, how to structure intergroup contact interventions to maximize its beneficial effects for both majorities and minorities.

Majority and minority group status: a functional perspective

Research reveals that interventions that emphasize a one-group or dual identity representation may be differentially effective for majority and minority group members. Dovidio, Gaertner, Niemann, and Snider (2001), for example, found

that for European Americans, the majority group in the United States, intergroup contact reduced bias primarily through creating a stronger one-group representation, whereas for ethnic minorities, the effectiveness of intergroup contact for reducing bias occurred primarily through stronger dual identity representations. However, there may be cultural variation regarding which representation is optimal for reducing intergroup bias across different nationalities as well as different minority and majority groups (Guerra et al., 2010). For example, Esses, Wagner, Wolf, Preiser, and Wilbur (2006) investigated whether manipulations of the salience of a common national in-group increase or decrease bias against immigrants, and explored whether these effects differ between two countries with different histories and public discourse on immigration: Canada and Germany. The results showed differences between Canadian and German participants. Canadians revealed more favorable attitudes toward immigrants after an induction of a common national in-group that included immigrants, whereas Germans revealed less favorable attitudes toward immigrants after inducing a common national in-group that included immigrants. The authors propose that "in applying the common in-group identity model to naturally occurring groups, it is important to take into account the context in which groups are situated. For some groups, a superordinate identity may be welcomed and have positive effects on relations among previously separate groups. For others, a superordinate identity may be perceived as a threat and result in a backlash against the other groups involved" (Esses et al., 2006, p. 666). Thus, previous research with adults provides some support for the functional perspective.

Dovidio, Gaertner, and Saguy (2009) proposed that groups adopt the preferred representation that most effectively promotes their group's goals. Majority groups generally prefer a one-group representation because it deflects attention away from disparities between groups and reduces subgroup identification, thereby reducing the likelihood of collective action that challenges the *status quo* (Wright & Lubensky, 2009). By contrast, minority groups prefer a dual identity because it recognizes group distinctiveness, drawing attention to group disparities, which can motivate both majority and minority group members to mobilize to address injustices (Tyler & Blader, 2003). This functional perspective, according to Guerra et al. (2010), suggests that preferred representations may differ across cultural contexts. In cultural contexts in which the status of minorities is tenuous because of the nature of immigration policies (e.g., as in Germany, which until recently has been a nonimmigration country), minority group members may prefer a one-group representation, whereas majority group members may prefer a dual identity in which the different group memberships remain identifiable so as to mitigate distinctiveness threat (see Gaertner et al., 2007; Guerra et al., 2010).

Previous research conducted with children also supports this reasoning. Guerra et al. (2010; see also Rebelo, Guerra, & Monteiro, 2005) examined the effectiveness of different recategorization strategies on reducing bias among European Portuguese and African Portuguese children. Participants interacted under conditions emphasizing primarily their national identity, or emphasizing both their ethnic and national identities. Results revealed that each of these recategorization strategies, relative to a control condition, was successful in promoting positive attitudes toward the out-group children. More importantly, in contrast to the findings of Dovidio et al. (2001) in the United States, and consistent with a functional perspective regarding which representation would most effectively promote their group's goals, a dual identity condition was more effective for the European Portuguese majority group, while the one-group condition was more effective for the African Portuguese minority group. According to Gaertner et al. (2007), the United States and Portugal differ substantially in the longevity and dynamics of intergroup relations between the majority and minority groups studied. Therefore, the phase of acculturation may moderate the integration goals of ethnic minorities as well as the preferences of majorities. Thus, a dual identity may not be functional for second generation African Portuguese children who may strive for assimilation and equality with European Portuguese children. Thus, an assimilationist representation (i.e., one group) may be more effective and functional for minority status groups. Supportive of this reasoning, research conducted with Portuguese adolescents showed that African Portuguese students who stated an "assimilated" identity had higher school achievement, relative to participants stating an "integrated" identity (Maurício & Monteiro, 2003; Mouro, 2003). For the majority children, however, the dual identity representation may offer a degree of positive differentiation from the minority—which consequently may lower intergroup bias more than recategorization due to the lower levels of identity threat it may arouse to the traditional Portuguese identity. Thus, the groups' majority/minority status can be a key factor to consider when developing interventions aimed to reduce racial prejudice.

The present research

The present research extends previous work on this topic by exploring whether the benefits of a recategorization and a dual identity might be translated effectively into an intervention program designed to reduce prejudice and improve intergroup attitudes. Specifically, extending research by Guerra et al. (2010), the intervention sessions occurred once a week for 4 consecutive weeks and the groups were heterogeneous with regard to sex in order to make the intervention as similar as possible to the daily environment in the classroom. The program utilized the common in-group identity model's

major assumptions and involved manipulations similar to regular school activities. In Guerra et al.'s research, participants worked on an adaptation of the Winter Survival Problem, and their main task was to make a group decision. In the present intervention, children were asked to perform a variety of activities that they usually carry out in the classroom, such as writing small essays, drawing, painting, and reading. European and African Portuguese elementary schoolchildren met under conditions (after Gaertner et al., 1989) emphasizing recategorization as one group (primarily emphasizing the children's national identity as Portuguese) or a dual identity (emphasizing both their ethnic and national identities). Participants in the control condition did not have any sessions between the pretest and the posttest assessments. Participants interacted for 45 minutes in weekly sessions for a month. Pretest measures were introduced approximately 1 week before the intervention began and posttest measures were administered 1 month after the last session ended. After the posttest, the investigators exposed the children in the control condition to a shorter version of the intervention so that their intergroup attitudes could benefit also from their participation in this project.

Overall, we predicted that both the recategorization and the dual identity conditions would decrease intergroup bias, relative to a no-treatment control condition. Based on previous findings by Rebelo et al. (2005) and Guerra et al. (2010) in Portuguese elementary schools, we expected that participants' majority/minority status would moderate the effectiveness of recategorization and dual identity on bias. On the basis of our functional perspective, we expected that the dual identity, relative to the recategorization condition, would be more effective among majority European Portuguese children, whereas the one-group representation, relative to the dual identity condition, would be more effective for minority African Portuguese children.

Based on Stephan, Renfro, and Stephan's (2004) recommendations, our program had a pretest/posttest with control group design, and used an indirect interactive approach. Stephan et al. (2004) conceptualize intervention programs along four dimensions: direct and indirect, and didactic and interactive. Direct approaches are designed to provide information about different groups and are generally focused on the history, values, and norms of those groups (e.g., multicultural education, antibias education programs). Indirect approaches attempt to improve intergroup attitudes by promoting contact, under specific conditions, between the different groups (e.g., cooperative learning techniques). Additionally, both programs can rely on more didactic approaches, oriented toward traditional school activities involving reading, lectures, and discussions. Interactive approaches, on the contrary, rely on techniques that involve role-playing, simulation games, and group exercises.

We selected a more interactive approach because previous research revealed that direct programs involving readings and more didactic techniques produced less attitude change presumably due to the less involving nature of the didactic approach (Stephan et al., 2004). Moreover, as Bigler (1999) suggested, children are not passive absorbers of the messages exposed in the intervention materials, and consequently they might even distort the information. Based on the cognitive-developmental approach, Bigler further proposed that direct didactic approaches (multicultural curriculum) do not take into account children's cognitive characteristics. Children tend to focus on concrete rather than abstract aspects, and when exposed to complex multicultural stimuli they tend to develop more simplistic stereotypes of the target groups (Bigler, 1999). We chose the indirect rather than the direct approach because a meta-analysis concluded that contact with out-group members was the only component of the intervention programs that significantly changed participants' attitudes and behaviors (Stephan et al., 2004).

Method

Participants and design

Participants were 38 fourth grade Portuguese male and female children of Portuguese (18) and African (20) origins, aged between 9 and 11 years old. Children's ethnic origin was determined by information provided by the teachers regarding both children's and children's parents and grandparents' countries of birth. The small sample size was in part related to the size of the school. Although all the fourth grade classes were involved in the intervention, there were only 38 children who fulfilled the criteria to participate in the program. The inclusion criteria were age (9–11 years old), school year (fourth grade), ethnic origin, and nationality. Participants were randomly assigned to each of the three treatment conditions: control (no exposure to intervention), recategorization, and dual identity. The sessions were run in mixed sex groups of approximately 12 persons per group. The primary experimental design was 3 (treatment: control, recategorization, dual identity) × 2 (majority/minority status: European Portuguese, African Portuguese) × 2 (time: pretest, posttest 1 month later) × 2 (sex: male, female). All participants had parental consent to participate in the intervention project.

Procedure

The intervention program was conducted in one school, involving four different fourth grade classes. The school had a heterogeneous ethnic environment with about 60% of European Portuguese and 40% of African Portuguese children. The school was located in a suburb of Lisbon that was characterized by a relatively low social economical status. The school principal had several meetings with the research team to

define a schedule for the activities, as well as the teachers' classes that would be involved in the intervention. Teachers were debriefed on the aims and purpose of the project (understanding and improving children's intergroup relations), but did not run the intervention. All the sessions were conducted after children's classes, as part of the school's extracurricular activities.

Pretest measures were assessed approximately 1 week before the first intervention session and participants completed the evaluation materials in small, mixed sex groups outside the classroom, in a different classroom, prior to their assignment to experimental condition. The intervention occurred once a week for 4 consecutive weeks. The posttest measures were administered 1 month after the last session.

The intervention consisted of a task adapted from Guerra et al.'s (2010) previous studies in which participants merely had to solve a survival problem in which they chose items to salvage from their boat. In the current study, the children engaged in tasks more associated with classroom activities. Their main purpose was to create a comic book that described children's daily life while they were living on the island. They were provided with one poster with the background of the desert island. Each of the four weekly sessions represented 1 day on the island, and participants had to describe four different situations. During session 1, the children explored the island, drew themselves on the island, and presented the overall physical environment (using pictures, cutting and gluing images, etc.). In session 2, children's main task was setting up a camp, looking for food, and cooking a meal, using several types of materials such as pictures, photos, and drawings. In session 3, participants had to build a fence to protect their camp because they discovered there were some dangerous animals living on the island. Children used the same materials used in the previous activities. Finally, in the last session, children had to prepare everything to continue with their boat trip.

Experimental manipulations

The experimental procedure was adapted from Guerra et al. (2004, 2010). In the control condition, after assessing the participants at the pretest, no manipulations were introduced. Participants were told that all fourth grade children in the school would have the chance to play a game and that some would do it soon and others would do it a few weeks later. During the pretest, children were asked to answer the questions so that the experimenters could get to know them a little better.

In the recategorization condition, participants were seated at a single table with an integrated seating pattern (ABABAB) in all four sessions across the 4 week period. The interaction was framed as occurring within the "Portuguese team," and this was emphasized at the beginning of each new session

when they had to present themselves and briefly summarize what was their goal as a team. They had a common color tag (green) and they were told that the team would win a prize if their final comic book was well done. All 12 participants performed exactly the same activity during the session: All were drawing, or all were writing or gluing pictures.

In the dual identity condition following Guerra et al.'s (2004) procedure, participants sat on separate tables in a segregated seating pattern (i.e., AAA; BBB). Participants were the "Portuguese team with Portuguese and African origin students," the team had a common green tag, and additionally each ethnic subgroup had its own subgroup color (brown for the African Portuguese children, and white for the European Portuguese children). The overall task was the same as executed in the recategorization condition, but in this condition, each subgroup had to perform different but complementary tasks. For example, if on day 1 of the intervention the main objective was to describe the camping activity using drawings and writing, the African Portuguese children would write while the European Portuguese children would draw. The activities (drawing, writing, cutting, and gluing) for each group were counterbalanced between the sessions, such that on day 2 of the intervention, the African Portuguese children would draw and the European Portuguese children would write. This alternation also occurred for days 3 and 4. Participants were also told that they could win a prize if their final team comic book was done well. Participants in both the recategorization and the dual identity conditions received feedbacks informing them that their group work had accomplished all the objectives and that their comic books were very attractive—and so they would receive a prize.

Measures

The dependent measures were the same at pretest and posttest. At posttest, participants completed a questionnaire containing items related to manipulation checks and evaluation measures. Manipulation checks were obtained by asking participants to select (as in González & Brown, 2003, 2006) the way they felt the groups interacted (e.g., *"Please choose the sentence that best describes how you feel you did the game: option (a) Our group did together the poster describing the day on the island; option (b) Our group, together with the other group, did our team poster describing the day on the island"*). For the evaluation measures, the participants evaluated unfamiliar in-group and out-group children shown in group photographs. The photographs depicted four male and female children of Portuguese (White) and African (Black) origins separately. No instructions were given regarding the ethnic membership of the children illustrated in the photographs, but those were previously pretested with elementary school-children to guarantee that participants correctly perceived them as White and Black, boys and girls. The evaluation of the

in-group and the out-group as a whole was assessed on four attributes—competence (*"how well do you think they would play the game"*), similarity (*"would they do the things like you"*), liking (*"would you like them"*), and niceness (*"would they be nice"*)—on a 4-point Likert scale (4 = *very much*; 3 = *kind of*; 2 = *a little*; 1 = *not at all*).

We averaged the ratings of competence, similarity, liking, and niceness to form a single evaluation measure (pretest: in-group ratings a = .70 and out-group ratings a = .76; posttest: in-group ratings a = .88 and out-group ratings a = .67).

Results

All participants in the recategorization and dual identity conditions correctly identified their representation condition on the manipulation check item. The groups were composed of male and female children, but preliminary analyses revealed no reliable effects for sex. Because there was only one group of approximately 12 children assigned to each condition, we used the individual child as the unit of analysis. Overall, in our analyses, treatment condition (control, recategorization, dual identity) and group status (majority, minority) were between subject variables. We present the findings in two stages. First, we examine the predictions regarding the general effects of the treatment conditions. Second, we present the findings regarding our predictions involving the moderation by group status, which represent only comparisons of the recategorization versus dual identity conditions separately for African Portuguese and European Portuguese children.

Bias

To consider the hypothesis that both recategorization and dual identity conditions would reduce bias relative to a control condition, we performed a 3 (treatment: recategorization, dual identity, control) 2 (majority/minority status: European Portuguese, African Portuguese) analysis of covariance (ANCOVA) on participants' bias scores at posttest (in-group minus out-group), controlling for participants' bias scores at pretest. The main effect of the treatment condition was not reliable, $F(2, 35) = 1.92$, $p = .16$, although the means are in the expected direction. Because we had *a priori* directional hypotheses derived from previous research, we additionally examined the effects of the treatment conditions with simple contrast analyses. We expected that these would offer more sensitive tests of our predictions.

We conducted a series of simple contrasts comparing participants' bias scores in the categorization condition to the recategorization and then the dual identity conditions, first collapsing across group status (see Table 1A). These analyses revealed a pattern of findings partially supportive of our predictions. That is, as predicted, comparisons revealed less bias in the recategorization relative to the control condition ($Ms = -0.17$ vs. 0.31), $t(21) = -1.99$, $p < .05$. However, no

Table 1 Posttest Evaluation by Condition, Target, and Status

Target		Experimental condition					
		Control		Recategorization		Dual identity	
		Mean	SD	Mean	SD	Mean	SD
All participants (collapsing across group status)							
A	In-group	3.83	.30	3.00	.94	3.47	.64
	Out-group	3.52	.52	3.17	.42	3.33	.67
	Bias	.31[a]	.37	-.17[b]	.84	.14[a]	.58
African Portuguese							
B	In-group	3.90	.14	2.67	.99	3.50	.51
	Out-group	3.51	.47	3.29	.41	3.07	.65
	Bias	.39	.47	-.62[a]	.72	.43[b]	.48
European Portuguese							
C	In-group	3.73	.40	3.26	.85	3.47	.81
	Out-group	3.53	.61	2.99	.37	3.60	.56
	Bias	.20	.25	.27[a]	.84	-.13[a]	.31

Note. Means are adjusted for pretest bias. Different superscripts in each column are significantly different from each other at $p < .05$.

reliable differences were found for the dual identity relative to the control condition, although the means were in the expected direction ($Ms = 0.14$ vs. 0.31), $t(24) = 0.74$, $p = .46$. An additional one-sample t-test analysis further revealed that bias on the posttest was reliably different from zero only in the control condition, $t(11) = 2.75$, $p < .05$, while bias in each of the recategorization and dual identity conditions was not different from zero.

Effects of group majority/minority status on bias

To test the hypotheses that dual identity, relative to recategorization, would be more effective among European Portuguese children, whereas the one-group representation, relative to the dual identity, would be more effective for African Portuguese children, we present only comparisons of the recategorization versus dual identity conditions separately for African and European Portuguese children.[1]

As expected, the main effect for the treatment conditions mentioned above was qualified by a reliable two-way interaction between treatment and group status, $F(2, 35) = 4.16$, $p < .05$. To further explore this interaction, we conducted additional ANCOVAs on participants' bias scores on the posttest, controlling for pretest, separately for the European Portuguese and the African Portuguese participants. The analyses revealed the expected main effect of treatment condition but only for the African Portuguese minority group, $F(2, 18) = 4.98$, $p < .05$ (see Table 1B), whereas no reliable

[1]Additional contrasts comparing bias scores in each of the recategorization and the dual identity conditions to the control condition, separately for African and European Portuguese children, revealed only one reliable effect. For African Portuguese children, the bias score in the recategorization condition was reliably lower than in the control condition ($Ms = -0.62$ vs. 0.39), $t(10) = -2.84$, $p < .05$. All other comparisons did not reach significance.

effect was found for the European Portuguese majority group, $F(2, 17) = 0.93$, $p > .10$ (see Table 1C). We conducted additional simple contrast analyses comparing participants' bias scores in the recategorization condition to the dual identity condition. As anticipated, for the African Portuguese minority children bias was lower in the recategorization than in the dual identity condition ($Ms = -0.62$ vs. 0.43), $t(10) = -2.85$, $p < .05$. The bias score in the recategorization condition might suggest that African Portuguese children were displaying out-group favoritism. Additional one-sample t-test analyses revealed, however, that this was not the case, and the bias score for African Portuguese children was not reliably different from zero, $t(6) = -1.53$, $p = .20$.

For the European Portuguese majority group children, although bias was lower in the dual identity relative to the recategorization condition ($Ms = -0.13$ vs. 0.27), this difference was not reliable, $t(11) = 1.22$, $p = .24$.

Overall, intergroup bias was lower in the recategorization relative to the control condition, whereas no effects were found for the dual identity condition. As predicted, for African Portuguese minority children bias was lower in the recategorization than in the dual identity condition. However, among the European Portuguese majority children, no differences were found between these two conditions.

Discussion

The present study explored whether the benefits of a complete recategorization and a dual identity representation could be translated effectively into an antibias intervention program, using routine school-based activities, designed to reduce prejudice among ethnically diverse children. Overall, our findings converge with those of previous research conducted both with children (Cameron et al., 2006; Houlette et al., 2004) and adults (Gaertner et al., 1994; González & Brown, 2003, 2006). In the current study, however, only the recategorization representation condition effectively decreased intergroup bias relative to a control condition, while dual identity did not promote statistically reliable changes in children's intergroup bias. Nonetheless, intergroup bias at posttest was only reliably different from zero in the control condition, suggesting that not receiving any intervention was related to less positive intergroup attitudes. Our findings regarding group majority/minority status also reveal some contrasting, but predicted, effects partially supporting the functional perspective regarding how historical context might influence which intervention strategy (recategorization or dual identity) might be most effective, respectively for minority and majority group members. Given the small sample size, these results should be interpreted with caution. Nonetheless, the results are consistent with previous research conducted in Portuguese schools with larger samples (Guerra et al., 2010; Rebelo et al., 2005).

Overall, these results support our purpose of translating research into practice. Despite the small sample size and the exploratory nature of the study, we feel confident to conclude that the theoretical assumptions of the common in-group identity model can be translated into broader educational programs to reduce intergroup bias. Future research could further test whether the benefits of a complete recategorization and a dual identity might be translated effectively into a larger intervention that involves teachers and other types of school activities. The main purpose should be to provide schools and teachers with techniques they can use in their daily classroom activities.

We believe that it is possible to benefit from the potential complementarity between category-based models and the more didactic multiculturalism approach. As Bigler (1999) suggested, children are not passive absorbers of the messages presented in the intervention materials, so maybe the didactic information used in the multiculturalism interventions needs to be presented in a way that is more involving for the children. For instance, the multicultural materials (video, books, etc.) can be presented in a classroom that is arranged in order to create a sense of one group or one team with two subgroups. Further research is needed regarding the translation of theoretical models into practical interventions. The utilization of multicultural materials can be done by creating a team (the class) with two subgroups (European and African Portuguese children) that work together with multicultural materials, and then present their team cultural communalities and their subgroup cultural differences. On the other hand, teachers can create a common identity, the class, which works together as a team using the multicultural material, emphasizing mainly the class cultural similarities. In summary, we feel confident to say that the common identity model is, in the words of Lewin, a good theory.

Majority and minority status

Our findings with respect to group majority/minority status were partially supportive of our predictions. Consistent with earlier studies conducted in the same cultural context and with larger samples (Guerra et al., 2010; Rebelo et al., 2005), group status moderated the relative effectiveness of recategorization on bias. African Portuguese children reacted more favorably toward the majority group when recategorization, similar to an assimilationist orientation, rather than a dual identity, similar to an integration orientation, was used. Although bias was lower in the dual identity relative to the recategorization condition for the European Portuguese children, this difference was not statistically reliable.

The results replicated previous research conducted in Portuguese elementary schools; however, the pattern of findings is different from those obtained for ethnic majority and minority college students in the United States (Dovidio et al.,

2001) and among ethnically homogeneous numerical majority and minority laboratory groups in the United Kingdom (González & Brown, 2006). In these studies, a more assimilationist strategy was related to lower bias among majority group members in the United States (Dovidio et al., 2001). Also, dual identity was more strongly associated with reduced bias among minority groups relative to the recategorization strategy.

As proposed by Guerra et al. (2010), these different patterns across cultural contexts support a functional perspective in which the most effective representation among minority and majority groups depends upon which acculturation model would most effectively promote each group's goal (Dovidio et al., 2009).

In cultural contexts such as Portugal, however, where the integration of European and African origin people is less than 40 years old, the functional perspective suggests that minority groups may prefer an assimilationist representational model that further secures their belongingness to the culture. Thus, a dual identity representation may not be desirable for second generation African Portuguese children who still strive for assimilation and equality with European Portuguese children. Additionally, education strategies and school curricula in Portuguese elementary schools are still mainly characterized by assimilation principles, thus an assimilationist representational model may be most effective for minority children in terms of school adjustment and achievement.

Some additional data collected at pretest are consistent with this reasoning. At pretest, children's acculturation attitudes were assessed through four items adapted from Molina, Wittig, and Giang (2004). Acculturation was assessed by two items tapping out-group orientation (e.g., "Do you like meeting children from ethnic groups different than your own?"; "Do you like playing with children from ethnic groups different than your own?") and two assessing ethnic identities (e.g., "Do you like having African/Portuguese origin?"; "Are you proud of having African/Portuguese origin?"). A repeated measures analysis on acculturation attitudes by group majority/minority status revealed a reliable interaction. Out-group orientation was reliably higher than ethnic identity for African Portuguese children, whereas for European Portuguese participants, no differences were found between ethnic identity and out-group orientation. Thus, for African Portuguese participants, orientation toward the out-group was more important than their own ethnic identification. These results are consistent, albeit indirectly, with the fact that a one-group representation, which deemphasizes the groups' ethnic identities and makes salient a common national identity, was more effective for the African Portuguese minority children. For the European Portuguese children, however, no differences were found between their ethnic identity and the out-group orientation ratings. This result is consistent, albeit indirectly, with previous research

showing that for majorities, dual identity, where both the ethnic subgroups and the common national identity are salient, is a more effective strategy to reduce bias (Guerra et al., 2010). Additionally, previous research conducted with adolescents in Portuguese high schools revealed that minority students who voiced an "assimilated" identity had higher school achievement relative to participants voicing an "integrated" identity (Maurício & Monteiro, 2003; Mouro, 2003).

Nevertheless, given the small sample size used in the present study, results should be interpreted with caution, and further research is needed to examine the impact of the functional perspective on prejudice reduction strategies involving majority and minority group members. Future research involving the functional perspective can consider not only how different historical contexts and intergroup dynamics across different national cultural contexts may differentially influence majority and minority groups' representational preferences for social integration, but also these factors within a particular cultural context as a function of the specific comparison subgroups. For example, although European majority group members in the United States prefer an assimilationist model to regulate relations between White and Black Americans, a functional model would suggest that this majority may prefer a dual identity or separatist model when considering their relations with newly arrived immigrant minorities. In contrast, these newly arrived immigrant minority groups may prefer an assimilationist model, as they do in Portugal.

Conclusion and limitations

In conclusion, the present exploratory research offers some support for the common in-group identity model (Gaertner & Dovidio, 2000) with younger children from different ethnic backgrounds in an educational setting, and it suggests promising directions for future applied research. Despite the exploratory character of the intervention, and the consequent small sample size, our main purpose of integrating the experimental manipulations of different categorized-based models into more natural school activities was achieved. Indeed, common in-group identity model's major assumptions were translated successfully in manipulations that were similar to regular school activities, and occurred for a longer period of time, relative to previous studies where participants interacted only once. Our findings offer some support for the potential of recategorization for promoting harmonious intergroup relations in applied settings. We acknowledge the limitations imposed by our small sample; however, we believe that one of the major strengths of our intervention was the pretest/posttest with a control group design, which allowed us to investigate any causal effect of our manipulations on children's intergroup attitudes. Additionally, our findings, together with previous research, highlight the importance of

recognizing the historical and cultural relations between different status groups for understanding the relative effectiveness of the different category-based models. In particular, the current research extends previous research on antibias interventions by pointing to both theoretical and practical values of understanding different status group member responses toward each other within the same interaction context.

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