

## Racial awareness, affect and sorting abilities: A study with preschool children

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**Título:** Conciencia racial, afecto y habilidades de clasificación. Un estudio con niños de Educación Infantil.

**Resumen:** En este trabajo se evaluó la conciencia racial y las actitudes tempranas en 50 niños españoles del grupo mayoritario (blancos), divididos en dos grupos de edad (36-48 meses y 60-71 meses). Se desarrollaron un conjunto de tareas que, mediante una entrevista semi-estructurada, permitieron obtener una medida del desarrollo cognitivo (tarea de clasificación), medidas socio-cognitivas (tareas de descripción personas, clasificación y la autoidentificación) y medidas afectivas (preferencias y rechazos). Además, se pidió a los niños que hicieran atribuciones sobre la preferencia o rechazo racial de sus madres. En general, las respuestas de los niños en la descripción y clasificación de personas mostraron que el género y el color de la ropa tenían más relevancia que los atributos raciales. En las tareas afectivas, se encontró un sistemático sesgo endogrupal (blanco) y un leve rechazo hacia el exogrupo (negro). La medida de desarrollo cognitivo se relacionaba con la conciencia y actitudes raciales en mayor medida que la edad. Los resultados se comparan con trabajos en los que se ha empleado el mismo procedimiento, pero en un contexto multirracial, y se discuten a partir de los distintos enfoques teóricos y de los continuos cambios sociodemográficos en España.

**Palabras clave:** Educación Infantil; conciencia racial; actitudes raciales; cognición social.

**Abstract:** Racial awareness and early attitudes was assessed in 50 majority-group Spanish children in two age groups (36-48 months and 60-71 months). A series of tasks in a semi-structured interview was administered to test the children's: Cognitive performance (classification task), socio-cognitive measures (racial awareness by person description, social categorization, and self-identification) and affective measures (preferences and rejections). Children were further asked to make attributions about their mothers' racial preference and rejection. Overall, children's responses in person description and social categorization revealed that gender and colour of clothes had more salience in their perception than racial cues. In social affect tasks, children displayed a consistent in-group (White) bias, and a slight but noticeable out-group (Black) rejection. It was found that the cognitive performance measure predicted children's racial awareness and attitudes better than age did. The findings are compared to our further research, using the same procedure but in a multiracial context, and discussed in the light of theoretical approaches and the continuing socio-demographic transformations in Spain.

**Key words:** Preschoolers; racial awareness; racial attitudes; social cognition

### Introduction

A number of developmental studies indicate that, by the age of 3, children have developed basic social categories to classify others and themselves according to their age and gender (Duveen & Lloyd, 1986; Lederberg, Chapin, Rosenblatt, & Lowe-Vandell, 1986; Yee & Brown, 1994), and also as a function of race<sup>2</sup> in countries with a multiracial composition (Aboud, 1988). Whereas gender or age denotes cross-culturally relevant social categories, skin colour or other indicators of race are particularly important for societies where different groups live in a hierarchy with different status positions. For example, the research carried out in Western countries like the United States, United Kingdom, or Canada, has revealed that, from 3-4 years of age, children are sensitive to racial cues or, in other terms, have become *aware* of race categories (Aboud, 1988; Doyle & Aboud, 1995; Katz & Kofkin, 1997; Milner, 1983; Nesdale, 2002; Rutland, Cameron, Bennett, & Ferrell, 2005). In the experimental setting, racial awareness implies that children's behaviour re-

veals that certain physical attributes of people (skin colour and associated cues) are relevant for distinguishing between 'categories of people'; thus, such cues become a functional attribute for children to organise their social world and to identify themselves as group members. In this sense, racial awareness is more than just a process of perceptual discrimination (that is present from 8 months of age without involving social knowledge, see Katz & Kofkin, 1997), but neither does it imply that young children are aware that their behaviour is guided by these cues, nor are they conscious of the meaning and social implications of belonging to a specific group.

Previous research in multiracial countries has also shown that, at the time that racial awareness is developing, children express a preference for a particular group -typically the in-group for those belonging to the majority<sup>2</sup>- and this early preference tends to increase from 3 to 6-7 years of age. Out-group rejection usually appears around 5 years and increases in the following few years as children gain knowledge about the social stereotypes linked to the different groups (Aboud, 2003; Killen, McGlothlin, & Henning, 2005). During middle childhood, some children can go beyond the rigid stereotyp-

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<sup>1</sup> By race, we refer to physical external variables related to an individual's ethnic in-group such as skin color, shape of the eyes, texture of hair, etc. Despite being a term that is scientifically discarded, we decided to maintain it in this article to avoid confusion between the terms *race* and *ethnicity*, with the latter referring to cultural aspects that go beyond the exclusively physical ones, and which are not the object of our study.

<sup>2</sup> In this article, we do not address the issue of minority group children's development in this field. By race, we refer to physical external variables related to an individual's ethnic in-group such as skin color, shape of the eyes, texture of hair, etc. Despite being a term that is scientifically discarded, we decided to maintain it in this article to avoid confusion between the terms *race* and *ethnicity*, with the latter referring to cultural aspects that go beyond the exclusively physical ones, and which are not the object of our study.

ing of group members to attend to the individual merits and characteristics.

Little is known, however, about the development of children's racial awareness in more racially homogeneous societies (i.e. Castelli, Carraro, Tomelleri & Amari, 2007; Castelli, Zogmaister & Tomerelli, 2010; Enesco, Guerrero, Callejas & Solbes, 2008; Guerrero & Enesco, 2008). Some studies have found that, in this kind of societies, awareness of racial differences, identification of the in-group, and intergroup attitudes develop more slowly than that in multiethnic societies (Cramer & Anderson, 2003; Kowalski & Lo, 2001).

In countries like Spain, Italy, and other countries from southern Europe, which have been characterised by low racial heterogeneity, interest in the study of the development of racial awareness is more recent, as a consequence of the rapid changes produced by the large influx of immigration these countries have been receiving in the last 10 years. In the case of Spain, the first developmental studies on ethnic-racial attitudes were carried out between years 1994 and 1998, when the sociodemographic transformations that Spanish society was about to undergo were anticipated, but before the immigration rate itself increased and reached the exponential rhythm of the last decade. That is, the children who participated in these first studies had no experience of living with people from other ethnic groups. In the school setting, there were practically no students from other countries and ethnic groups, so that the vast majority of Spanish children were socialised with peers from the same group. Some of the results of such early work are noteworthy because they serve as the framework for the goals of this investigation.

Among other findings, the lesser relevance of racial physical attributes for Spanish children under 6-7 years was reported. In the various tasks that assessed their racial awareness and prejudice, the children were rarely guided by the skin colour of the figures presented to them (drawings that differed notably in skin colour and other racial traits, in addition to gender and colour of clothing), when they were asked to organise social material or to make up racially coherent pairs, groups, or 'families' (Giménez, 1999), or when they were asked about their ethnic identity (Enesco, Navarro, Giménez, & del Olmo, 1999). In line with this, they did not use racial terms to describe either the figures or themselves. Only from the age of 8 did a significant majority of the children perform the tasks following racial criteria, such as categorising and describing people using the conventional terms associated with skin colour or racial group (e.g., "he/she is White, like me"; "he is Black"; "she is *Chinese*"). However, despite the delay in the emergence of these forms of racial awareness, other aspects related to rudimentary attitudes (specifically, preference for white-skin figures) were present at earlier ages, approximately from 4 years (Enesco et al., 1999; Giménez, 1999). These findings suggest a broader, more implicit and likely value-laden concept of race than was indicated by children's performance in the tasks that were of a more cognitive nature.

Meanwhile, Spanish society has undergone the expected profound demographic transformations in recent years. Many children from the majority group now live in multiethnic neighbourhoods and go to school with peers from other countries, with other languages and ethnic cultures, in addition to the fact that the mass media offer varied information about the phenomena of immigration everyday, often with not particularly positive nuances. In this sense, and according to some researchers who have reflected on the influential role that such changes play in the formation of racial attitudes (Bagley & Young, 1988; Cramer & Anderson, 2003; Katz, 1987), it can be assumed that Spanish children have currently developed more sensitivity towards racial differences than they had 10 years ago. However, research has not explored how closely their attitudes resemble that of children from countries with a multiethnic composition.

In this context, one of the goals of this work was to study the early development of racial awareness and attitudes in Spanish preschoolers who live in the region of Madrid, where in the last few years the immigrant population has grown at a higher rate than the country's average. This would allow us to compare the results with those obtained in countries with a longer multiracial tradition and with those obtained in Spain a decade ago, thus enabling inferences to be made about the role of the social context in the emergence of racial awareness and its developmental pattern.

Developmental and social researchers from different approaches (Aboud, 1988; Bigler & Liben, 2006; Katz, 1987, Nesdale, 2003; Rutland, 2004) commonly agree about the influence of historical, sociodemographic and personal variables in racial attitudes; however, they also acknowledge that the cognitive and socio-emotional changes that take place during childhood are closely related to the onset and development of intergroup attitudes in children. Indeed, the empirical evidence suggests that racial attitudes and prejudice in childhood adopt qualitatively different forms depending on the cognitive skills that children develop thorough the preschool and school ages (for an extended review of such a socio-cognitive developmental approach, see Bigler & Liben, 2006). In this way, another goal of this study was to examine the relationship between young children's cognitive skills and racial awareness and attitudes. The studies with children regarding this particular issue are still limited (Black-Gutman & Hickson, 1996), especially with preschool children (Clark, Hocevar, & Dembo, 1980; Enesco, Lago, Rodríguez & Guerrero, 2010; Ramsey, 1991; Semaj, 1981), and many researchers in the area recognize the need for new studies to bring to light these relations (Aboud & Amato, 2001).

In the present work, we assessed preschool children's cognitive skills in sorting tasks, as well as several aspects of their racial awareness and attitudes by means of a range of socio-cognitive and affective tasks (self-identification, person description and categorization, preferences and rejections). According to the socio-cognitive hypothesis, we predicted that children's growing sorting abilities will be positively related to their growing awareness of race/ethnicity categories,

and to racial attitudes bias. Even though we expected age and cognitive level to be related, we also expected that cognitive performance will explain the differences in children's racial awareness and attitudes, more than age will do.

The procedure and material designed for this study were also used in our further investigation (Lam, Guerrero, Damree, & Enesco, 2011) with a multiracial sample in London. In this way, we have the exceptional opportunity to compare findings across the two settings (a society with relative racial homogeneity versus one with established diversity), where cross-national systematic comparisons are rare.

## Method

### Participants

A total of 50 Spanish children from the ethnic majority group (White children) participated in the study. Children were drawn from four schools located in Madrid. The schools had between 10-20% of different ethnic minorities, mostly Latin Americans<sup>3</sup>. The participants were divided into two age groups: a younger group ( $n = 25$ , 12 boys) made up of 3 year-olds (36-48 months), and an older group ( $n = 25$ , 13 boys) comprising 5 year-olds (60-71 months). The children's families belonged to middle-low SES.

### Materials and procedure

A semi-structured interview with several tasks was administered to assess the child's: (1) cognitive performance, (2) socio-cognitive abilities, and (2) affective orientation to two racial groups (Black and White peers).

Prior to data collection, children's parents and the school council gave consent to participate in the research. Several trained research assistants individually interviewed children for about 20-30 minutes in a quiet room at the children's school. The interviews were audio-recorded for subsequent transcription.

A social stimuli set was developed: Eight ( $10 \times 8$  cm) photographs of 7-8 years-old children of both genders (4 boys and 4 girls), two colours of clothing (4 in blue and 4 in orange), and two racial groups (4 Black and 4 White children) were used. The photographs combined the three variables: (a) White boy in blue, (b) White boy in orange, (c) Black boy in blue, (d) Black boy in orange, (e) White girl in blue, (f) White girl in orange, (g) Black girl in blue, and (h) Black girl in orange.

### Cognitive performance

*Classification tasks.* Children's cognitive level was assessed through a series of classification tests partially based on one of the tasks developed by Inhelder, Sinclair & Bovet (1974). Classification tasks have been shown to be sensitive to and effective for assessing cognitive changes in young children (Bigler & Liben, 1993; Guerrero & Enesco, 2008; Enesco, Lago, Rodríguez & Guerrero, 2010; Semaj, 1981).

The procedure followed two steps: First, children were asked to organise the material (consisting of eight figures  $5 \times 5$  cm that differed in color, shape, and size) in two boxes following the instruction of making two groups of figures ("Put the ones that go together in one box..."). After sorting the material, they were asked to explain why they had sorted the material in that way. Then, the figures were mixed together and the child was asked to perform another sorting with the material, but following a different criterion. The instruction was "Now, I want you to make two other groups, but different from before...put the ones that go together, but now in a different way...". After this, children faced a new material also differing in three dimensions and the same procedure as before was followed. Children's responses to both tasks were scored (0-4) and categorised on each of the two levels: level 0 (no logical sorting or just one logical sorting in total), level 1 (two or more logical classifications).

### Socio-cognitive measures<sup>4</sup>

*Spontaneous Person Description.* To evaluate whether children spontaneously used racial cues to describe people, they were asked to look at two photographs one by one and to describe the target in each: "What do you see here? What is this child like...? Tell me everything you see in this photograph." For half of the sample, the order of presentation was: White boy in blue - Black girl in blue. For the rest of the sample, the order was: Black girl in blue - White boy in blue. The responses were classified into the following categories (not mutually exclusive) as used in a previous study (Guerrero, Enesco, Lago, Rodríguez, 2010): Gender (this is a girl/boy), physical but non-racial cues (e.g., hairstyle), colour of clothing (she has a blue T-shirt), and skin colour *or* race. This last category included both conventional racial labels (i.e., Black, White) and idiosyncratic words that the children used to refer to the targets' skin colour (e.g., pinkish, light brown, dark brown, etc.). In the latter cases, we followed with probes to be sure that the child was referring to skin colour and not to other features.

*Social Categorization.* The salience of racial cues was assessed by using the eight photographs described above as social material. The photographs were spread before the child. The instruction was: "Put together the ones that match/go together." All responses were coded into five

<sup>3</sup> Latin American is a formal term to refer to people from South America whose facial traits and skin color differ both from average Black people and White Spaniards in varying degrees. In Spain, they may be called 'South American' (as translated from Spanish) in a more official manner, but often they are called 'Latinos' in a more informal way.

<sup>4</sup> The socio-cognitive tasks of the current research were designed and tested in a previous research (Guerrero y Enesco, 2008) and replicated in a study by Lam, Guerrero, Damree & Enesco (2011).

exclusive categories: gender, colour of clothing, skin colour, mixed criteria (for example, making four different groups by combining gender and colour of clothing), no criteria.

*Self-identification.* From the set of eight photographs, the children were asked to select one target with the instruction: "Which one looks most like you?" The children's responses were coded in two categories: correct identification by race and gender (=1) and incorrect identification by race or gender (=0).

#### Affective measures

*Preference and rejection tasks.* These measures of social affect assessed the child's preference for and rejection of the targets. Once again, the photographs were spread on the table and the child was asked four different questions in a counterbalanced order. The instruction for the preference task was: "Which child would you most like to sit next to in the classroom?", and that for the rejection task was: "Which one would you *not* like to sit next to you in the classroom?" Two questions measured inferences about the social affect of the child's significant other (mother): "Which one would your mother like to invite to your birthday party? Which one would your mother *not* like to invite to your birthday party?" For each of the four questions, the child's choice was categorised as White =1 (when children selected one or more photographs depicting White figures), Black =0 (when children selected one or more photographs depicting Black figures), and others =2 (when participants selected two or more targets mixing White and Black figures, or when they selected none of them).

## Results

A check for gender differences on each of the tasks was performed and no significant differences were found in any of the comparisons. Consequently, these subgroups were pooled in all analyses.

The results will be presented in four sections. First of all, an analysis of the children's responses in the classification tasks will be shown. In the second section the analyses will focus on salience of race in the socio-cognitive tasks, and age and cognitive level differences will be discussed. In the third section, the analyses will center on ingroup and outgroup attitudes, measured by preference and rejection tasks; again, age and cognitive level differences will be discussed. Finally, the fourth section will include correlations and regressions analyses where age and cognitive performance will be examined as predictor variables over the different socio-cognitive and affective tasks.

### Cognitive Performance

*Classification tasks.* The distribution of participants in the two cognitive levels was as follow: Twenty two (44%) children scored at level 0 (sixteen 3-year-olds and six 5-year-old), and twenty eight (56%) scored at level 1 (nine 3-year-

olds and nineteen 5-year-olds). As expected, the measure of cognitive level correlated significantly with age group ( $r = .403, p < .01$ ).

### Socio-cognitive measures

*Spontaneous Person Description.* As shown in Table 1, gender was the categorical feature that children mentioned the most when describing the targets (92%), followed by physical but non-racial traits (86%), skin color (52%), and color of clothing (52%). While gender and physical traits were mentioned by the vast majority of children of both ages and cognitive levels, the reference to skin color significantly increased with age  $\chi^2(1, N = 50) = 11.54, p < .001$  and with cognitive level  $\chi^2(1, N = 50) = 6.41, p < .01$ . A similar trend was found regarding the descriptions based on color of clothing, which also augmented with age and with cognitive level, probably as a result of the increasing color terms and vocabulary at these ages.

Among the two photographs presented to the participants, the one depicting the Black figure elicited more references to skin colour ( $M = .46, SD = .503$ ) compared to the White one ( $M = .28, SD = .454, t(49) = 2.44, p < .05$ ).

**Table 1:** Children's Person Description: Categories\* (Frequencies and Percentages) Mentioned by each Age Group and Cognitive Level.

	Categories used by children							
	Gender		Physical traits**		Skin color		Color of clothing	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
3 yrs	21	84.3	20	80	7	28	6	36
5 yrs	25	100	23	92	19	76	17	68
Level 0	20	90.9	18	81.8	7	31.8	7	31.8
Level 1	26	92.9	25	89.3	19	67.9	19	67.9
Total	46	92	43	86	26	52	26	52

Note. \* Categories were not mutually exclusive. \*\* Physical traits were not racial characteristics.

*Social Categorization.* Half of the children did not follow any stable criterion in this task. The rest of participants sorted the stimuli by colour of clothing ( $n = 14, 28\%$ ), gender ( $n = 6, 12\%$ ), and skin colour ( $n = 5, 10\%$ ). We observed a slight increase in the use of skin colour with age (4% and 16%, respectively, for 3- and 5-year-olds) and with cognitive level (4.5%, and 14.3%, respectively, for levels 0 and 1), although neither association was significant.

*Self-identification.* Overall, most of the children succeeded in making a correct self-identification, selecting a photograph of their own ethnic group and gender,  $\chi^2(1, N = 50) = 5.120, p < .05$ . There were differences in correct self-identification between the two age groups (56% and 76%, for 3- and 5-year-olds, respectively) and the two cognitive levels (50%, and 78.6% for levels 0 and 1, respectively), although only this last variable was significantly related to self-identification,  $\chi^2(1, N = 50) = 4.48, p < .05$ ; thus the higher the cognitive level, the more likely the correct self-identification.

### Affective measures

Table 2 includes the four affective measures regarding children's and mothers' preferences and rejections, distributed as ingroup preferences (White targets) and outgroup rejections (Black targets).

*Children's Preferences and Rejections.* There were significant differences in the children's preference for the two racial groups. Children preferred the ingroup targets (68%) significantly more than the outgroup targets (30%),  $\chi^2(2, N = 50) = 32.92, p < .001$ . This preference was not related to children's age or cognitive level. One child selected all the girls as the most preferred figures, so this response was coded as "others", as we have explained in the method section.

There were also significant differences in the rejection measures. Children rejected the outgroup targets (54%) significantly more than the ingroup targets (34%),  $\chi^2(2, N = 50) = 13.24, p < .001$ . The outgroup rejection increased with age (48% to 60%) and with cognitive level (36.4% to 67.9%) although this difference was significant only for cognitive level,  $\chi^2(2, N = 50) = 9.96, p < .01$ . Thus, the higher the cognitive level, the more likely the rejection of a Black target. This time, six children gave responses that were coded as "others", because they selected several figures from different race group.

*Mothers' Preferences and Rejections.* The analysis showed significant differences between the two racial targets selected by children as the most preferred by their mothers (White 62%, Black 18%  $\chi^2(2, N = 50) = 18.52, p < .001$ ) but no significant differences in inferred rejection (White 44%, Black 36%). That is, overall children thought that their mothers would have a significant preference for the ingroup (White targets), but not rejection to the outgroup (Black targets).

The preferences attributed to the mothers did not diverge significantly with children's age or cognitive level. In contrast, the mothers' inferred rejections varied according to both variables. Thus, five year-olds were more prone than three year-olds to attribute an outgroup rejection to their mothers (52% and 36%, respectively) and children from the higher cognitive level made this attribution significantly more than children from the lower level (60.7% and 22.7%, respectively)  $\chi^2(2, N = 50) = 12.63, p < .01$ .

Both in preferences and rejections, ten children gave responses that were coded as "others" because they selected several figures of different race.

*Relationship between Children's Affect and Mother's Inferred Affect.* We performed linear regression analyses in which inferences about the responses of the mothers were simultaneously regressed on children's own responses. In a first analysis, the own preferences were used as a dependent variable and the mother's inferred preferences as a predictor. Results showed that mother's inferred preferences were a significant predictor  $\beta = .23, p < .05, R^2 = .08$ . Next, the own

rejections were used as a dependent variable and the mother's inferred rejections as a predictor. Results showed that mother's inferred rejections were also a significant predictor  $\beta = .51, p < .001, R^2 = .32$ . Thus, the perceived preferences and rejections of the mother were significantly related to children's positive and negative attitudes.

**Table 2:** Child's and Mothers's Preference for White and Child's and Mothers's Rejection for Black Targets (Frequencies and Percentages) by Age and Cognitive Level.

	Preference White		Rejection Black		Mother's Preference White		Mother's Rejection Black	
	n	%	n	%	n	%	n	%
3 yrs	16	64	12	48	14	56	9	36
5 yrs	18	72	15	60	17	68	13	52
Level 0	17	77.3	8	36.4	12	54.5	5	22.7
Level 1	17	60.7	19	67.9	19	67.9	17	60.7
Total	34	68	27	54	31	62	22	44

### Relationships with cognitive level and age

In the following analyses (correlations and regressions), age was taken in months (range 36-71) and cognitive performance, in number of logical classifications (0-4).

*Relationships between Socio-cognitive tasks and cognitive and age measures.* An examination of the simple correlations between the salience of race in each of the three socio-cognitive tasks (description, spontaneous categorization and self-identification) and the age and cognitive performance of the participants showed some associations (see Table 3). Children's cognitive performance was associated with salience of race in the three socio-cognitive tasks whereas age was related only with salience of race in description.

Taking into account the high correlation found between age and cognitive performance, a stepwise regression analysis was conducted with the three tasks, using cognitive performance and age as the predictors. Children's cognitive performance significantly predicted using race to sorting,  $\beta = .10, p < .05, R^2 = .18$ , and correct self-identification by sex and race,  $\beta = .21, p < .01, R^2 = .14$ . Significant results were obtained for age only in description,  $\beta = .018, p < .01, R^2 = .18$ .

*Relationships between affective tasks and cognitive and age measures.* In this analysis, there were taken into account only the responses that could be coded as White or Black (the category "others" was excluded). The simple correlations between age and cognitive performance of the participants, and their responses to the different affective tasks (children's own preferences and rejections and those attributed to their mothers) showed only one significant relation: children's cognitive performance was negatively associated to their own rejections (see Table 3).

Again, a stepwise regression analysis was conducted with the four tasks (own preferences and rejections and mother's preferences and rejections), using age and cognitive performance as the predictors. Children's cognitive performance significantly predicted own rejections  $\beta = -.18, p < .05$ ,

$R^2 = .11$ . That is, the higher the cognitive performance of the participants, the more they rejected the Black targets.

**Table 3:** Correlations between Age, Cognitive Performance, Socio-Cognitive tasks and Affective tasks.

	Age (in month)	Cognitive Performance (number of logical classifica- tions)
<b>Socio-Cognitive Tasks:</b>		
Person Description (N=50)	.42**	.39**
Person Classification (N=50)	.13	.28*
Self-Identification (N=50)	.22	.37**
<b>Affective Tasks:</b>		
Own preferences (N=49)	.18	-.03
Own Rejections (N=44)	-.10	-.33*
Mother's preferences (N=40)	-.10	-.03
Mother's rejections (N=40)	-.10	.23

\* $p < .05$ ; \*\* $p < .01$

Note. In the Affective Tasks N are less than 50 because were taken into account only the responses that could be coded as White or Black (the category "others" was excluded).

## Discussion

This study has revealed some interesting aspects of the nature of racial awareness and attitudes in 3- to 5-year-old Spanish children, an age and national group on which there is little information about how developmental changes occur in this area.

Overall, our findings are coherent with the prediction that cognitive skills that usually develop at the preschool age lead children to focus on the differences between social categories which enhances the emergence of biases. Thus, there were found a number of significant relations between the preschoolers' cognitive level and several aspects of their racial awareness and attitudes. Moreover, the cognitive performance measure predicted better than age most of the outcomes.

In all the socio-cognitive tasks (person description, person categorization and self-identification) children of higher cognitive performance seemed to be more sensitive to the colour of skin of the targets than children of lower performance. In contrast, age was related only to person description. Presumably, together with the increasing sensitivity to racial features, older children have a larger repertoire of race labels than younger children and, as noted by Bigler and Liben (2006), labelling and salience of race mutually influence each other in the formation of race categories.

Regarding children's affective orientation, results revealed the presence of a strong ingroup favouritism among our participants, irrespective of their age and cognitive level. In contrast, the outgroup rejection was moderate and significantly associated with cognitive level but not with age. Thus, when children had to choose a peer, the White targets were more likely to be selected than the Black targets, whereas when they had to reject a peer, only children of the higher cognitive level were more likely to choose a Black rather than a White target.

Overall, these findings coincide with previous developmental studies (Aboud, 1988; Clark, Hocevar, & Dembo, 1980; Enesco et al., 2010; Enesco, Guerrero, Lago & Rodríguez, this issue; Lam et al., 2011; Ramsey, 1991), including those carried out in Spain some years ago (Enesco et al., 1999; Giménez, 1999), where it was observed that preference for the in-group emerges relatively early and is defined before rejection of the out-groups.

In the present study we also assessed what the children believed to be the personal racial attitudes of their mothers in order to analyse whether there is any relation between perceived mothers' attitudes and children's personal attitudes. Results showed again the pervasiveness of ingroup preference but not of outgroup rejection. Thus, children believed that mothers would invite a White rather than a Black peer; however, their inferences regarding mothers' rejections varied according to age and cognitive level: Older children as well as those of higher cognitive level were prone to think that their mothers would refuse a Black peer (the rest of children performed at a chance level in this question). Moreover, results from the regression analyses showed that the perceived preferences and rejections of the mother were significant predictors of children's attitudes.

As there is few research on racial awareness that had included attribution items like the ones we introduced in this work, it is difficult to ascertain explanations for our findings. In the study done by Lam et al (2011) with preschoolers in London, a replication of the present research, the findings were coincident with ours in that children also attributed an ingroup favoritism to their mothers coherently with their own attitudes. A similar pattern was observed among Italian children aged 4 to 7 years in a study by Castelli, Carraro, Tomelleri & Amari (2007). In this research, children were also asked to predict their parents' attitudes toward a White or a Black peer, and results showed that children believed that parents would display racial biases. Interestingly, children's attitudes were strongly correlated with the inferred attitudes of the mothers but not the fathers, a finding suggesting that children do not simply project their own attitudes onto parents, as indicated by the authors: Mothers' attitudes might be more relevant than fathers' attitudes in the formation of racial attitudes among children (Castelli et al., 2007, p. 357).

In the present study, because mothers' attitudes were not measured, it is impossible to know to what extent the children inferred them correctly. In future studies, it would be interesting to appraise these aspects systematically and to investigate the relationship between parents' actual attitudes and parents' attitudes as attributed by the child, and children's socio-cognitive performance in different tasks.

Focusing now on the findings regarding children's outgroup rejection, there are two aspects that deserve attention. On the one hand, the fact that cognitive level was associated to outgroup rejection but not to ingroup preference is contradictory to data coming from other studies carried out with Spanish children of similar ages. In those studies, children

aged 3 to 6 years showed a clear-cut bias toward the ingroup both in preferences and in positive attributions, whereas they did not discriminate between ingroup and outgroups when rejecting or allocating negative adjectives (Enesco et al., 2010; Enesco et al., this issue). Moreover, children's cognitive performance was a significant predictor of ingroup preference but not outgroup negativity (Enesco et al., this issue), just in the opposite way than the current results. This last finding might be explained by the type of tasks used to assess the cognitive performance of the participants. The sorting tasks developed for the present research allowed us to identify two broad levels of high and low performance, whereas in the above mentioned studies we developed a more refined and precise measure of cognitive performance of children at these ages (Enesco et al., 2010). Among other tasks, we measured the sorting abilities within a *detection paradigm*, a procedure that has been proven to be a good way to evaluate the implicit knowledge and the intuitive strategies that young children develop to estimate quantities, or differences and similarities between collections (Gelman & Meck, 1983). By this procedure, we detected subtle cognitive differences among young preschoolers that were a good predictor of the emergence of ingroup favoritism, a relation that was absent in the present study.

It remains to explain why children did show outgroup negativism in the present study but not in the other two researches (Enesco et al., 2010; Enesco et al., this issue). This disparity might be due to an important methodological difference: the number of ethnic targets that children faced. In the current research children had to make decisions regarding only two ethnic groups (White and Black targets) whereas in the other studies they faced four ethnic groups (Africans, Asians, Latin-Americans, and Spaniards). There is evidence to suggest that dichotomous group comparisons are more likely to appeal to intergroup bias than multiple group comparisons (Aboud, 1988; Rutland, Brown, Cameron, Ahmavaara, & Samson, 2007; Bennett, Barrett, Karakozov, Kipiani, Lyons, Pavlenko, & Riazanova, 2004; Hartstone & Augoustinos, 1995). Indeed, the comparison between two options makes salient even small differences, whereas these differences become less salient as the number of options increases.

Some other studies carried out using a multiple group comparison context seem to support these claims. The already mentioned study by Lam et al. (2011) with 3 to 6 year-olds followed an identical procedure to the one developed in the current research, but adapted to a multi-group comparison context (White, Black and Asian targets). Overall, the results showed that despite most participants correctly labeled others (75%) and themselves (88%) by race (recall that in the present research only 55% of our Spanish participants used racial labels), the race of the targets was much less salient than other variables (gender, color of clothes). In particular, Lam and colleagues revealed that children virtually omitted race as an attribute for classifying the targets, on the one hand, and that they did not show any negative bias to a par-

ticular group, on the other hand. Most children preferred a White peer (65%), but they did not differ in their rejection of the Whites, Blacks, and Asians (around 30% each group). Considering previous findings with preschoolers in the UK revealing an early ingroup preference as well as outgroup rejection (Rutland et al., 2005), such low salience of race could be reasonably interpreted as an effect of the multi-group context procedure. From a cognitive perspective, it is indeed more demanding to compare stimuli from three (or more) categories than stimuli from dichotomous categories. Quite probably, when young children have to make an election among multiple choices, they are not exhaustive in their comparisons. However, why preferences are not influenced by multiple choices? The explanation is not clear. Probably, as some authors suggest, preferences are formed through distinction and people has the ability to know what they prefer without knowing much else (Hsee & Zhang, 2004); therefore, preferring or "liking" is possibly more basic than "disliking". Anyway, there is need of further research with young children to assess the relative weights of the cognitive and the methodological variables in the different outcomes.

Another goal of this work was to examine the extent to which the racial awareness of our participants is comparable to that of younger children from multiracial countries. Our data suggest that the color of skin is less salient to Spanish majority-group children than it is to those who live in Western multiracial countries (Aboud, 1988; Aboud & Amato, 2001; Nesdale, 2001; Ramsey, 1991). As noted in the introduction, in these countries, the research on social categorization shows that, from the age of 3-4, race has become a relevant and significant aspect of perception and affect. In contrast, in the present study, even many of the 5-year-olds did not appear to see skin colour as an important feature; and gender or colour of clothing guided the preschoolers' behaviour much more than did skin colour. Their performance on self-identification was also considerably lower than that reported in studies carried out in multiracial countries (Aboud, 2003; Kowalski & Lo, 2001; Lam et al., 2011; Milner, 1983; Ramsey, 1991).

The ethnic diversity of countries such as the US or UK, along with their socio-political history, considerably imbues the social discourse in which children learn the meaning and value of race. In Spain, our situation is not yet comparable to those countries, despite the increase in ethnic heterogeneity over the last few years. Further studies, as the country goes through further transformations, will inform us about the relationship between children's racial cognition and social contexts. So far, the results of this study differ in some aspects from those obtained in Spain 10 years ago (Giménez, 1999; Enesco et al., 1999). While race salience and labelling are still rather poor, young preschoolers are more precocious now with regards to racial self-identification and attitudinal orientation than a decade ago. The ingroup bias and the outgroup rejection is more apparent in this study than in the past ones, which might indicate that young children are sensitive to the social changes that are occurring in their environment. Fur-

ther cross-national studies are necessary to advance in this area of research.

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(Article received: 15-10-2010; reviewed: 21-12-2011; accepted: 26-1-2011)