The intergenerational transmission of ethnic essentialism: how parents talk counts the most

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Abstract

The present study analyzed the role of parents as potential sources of children’s essentialist beliefs about ethnicity. We tested 76 parent–child (5-year-olds) dyads of Jewish Israeli parents from three social groups, defined by the kindergartens children attended: national religious, secular, or Jewish-Arab integrated. We assessed parents’ and children’s beliefs, and parents’ usage of ethnic attitudinal and categorization markers in a book-reading activity. Overall, national religious parents manifested the strongest ethnic essentialism and endorsement of anti-negotiations with Palestinians, and were the most likely to express negative attitudes and mark ethnic categories in their conversations with their children. Moreover, regression analyses revealed that ethnic categorization in parents’ speech was the most reliable predictor of children’s ethnic essentialism. Ethnic essentialism is transmitted to children not via explicit communication of intergroup beliefs or attitudes, but rather via the sheer marking of categories in ways that resonate with children’s own intuitive ways of conceptualizing the social world.

Research highlights

• A belief that underlies intergroup prejudice and biases is that members of different social groups are essentially different kinds of people. We show that children’s development of this belief is related not to their parents’ holding and explicitly teaching it, but simply to parents’ marking of relevant social categories.

• From a theoretical perspective, the finding reveals that social essentialism needs minimal cultural triggers in order to blossom in children.

• From a practical perspective, the finding spotlights parents’ marking of social categories as a target for educational intervention aimed at curbing the potentially pernicious implications of social essentialism.

Introduction

Children all over the world essentialize a variety of social categories. They believe that social category membership is stable and inherited (Hirschfeld, 1996; Kinzler & Dautel, 2012; Taylor, 1996), that category members share non-obvious psychological and physical properties (Birnbaum, Deeb, Segall, Ben-Eliyahu & Diesendruck, 2010; Shutts, Pemberton Roben & Spelke, 2012), and that categories capture objective kinds (Diesendruck, Goldfein-Elbaz, Rhodes, Gelman & Neumark, 2013). Worryingly, both adults’ (Prentice & Miller, 2007) and children’s (Levy & Dweck, 1999; Pauker, Ambady & Apfelbaum, 2010) essentialism is associated with stereotyping, negative attitudes, or prejudice toward social categories. In part driven by these pernicious implications, researchers have become interested in the origins of social essentialism (e.g. Haslam, Rothschild & Ernst, 2002; Keller, 2005).

One observation informing this research program is that although social essentialism is found in a variety of cultures, the particular categories essentialized differ. Thus, children in the US essentialize gender and eventually race (Rhodes & Gelman, 2009), in Israel ethnicity (Jews/Arabs; Diesendruck & haLevi, 2006), in Chile social status (del Rio & Strasser, 2011), and in India adults essentialize caste (Mahalingam, 2003). In fact, even within cultures, the degree to which children essentialize salient social categories varies across sub-groups (Deeb, Segall, Birnbaum, Ben-Eliyahu &...
Diesendruck, 2011; Rhodes & Gelman, 2009). These variations intimate that cultural factors may play an important role in the development of social essentialism. One type of cultural factor that may have such a role is parents’ own beliefs or attitudes towards the pertinent social groups. For instance, Italian parents’ (primarily mothers’) implicit racial attitudes contributed to children’s racial attitudes (Castelli, Zogmaister & Tomelleri, 2009), and specifically about essentialism, studies in Israel found that certain religious beliefs correlated with children’s social essentialism (Diesendruck & Haber, 2009). Crucially, however, if parents’ essentialist beliefs or attitudes are to impact children’s essentialist beliefs, they need to be manifested in a way that children can detect. In other words, ‘proximal’ sources of cultural variation need to mediate between the above ‘distal’ sources and children’s essentialism. Examples of such proximal sources are parents’ selection of ethnically heterogeneous or homogenous social environments and partners, their exposure of children to cultural diversity, and their articulation of ideologies – some of which indeed have been shown to affect children’s attitudes or beliefs regarding social categories (e.g. Pahlke, Bigler & Suizz, 2012; Rhodes & Gelman, 2009).

The general goal of the present study was to assess the real-world potential factors by which parents – as primary cultural agents for young children – might de facto transmit essentialist beliefs about ethnicity to their young children. Three sub-goals were defined. First, we were interested in uncovering the potential contribution of distal parental sources of cultural variation to children’s essentialism about ethnicity. Second, we investigated the impact of parents’ language input, both independently and as a proximal mediator of distal sources, to children’s ethnic essentialism. Third and finally, we assessed which types of linguistic indices most substantially contributed to children’s essentialism.

Laboratory studies have identified two linguistic forms as particularly powerful promoters of essentialism: count-noun labels (e.g. made-up ones, such as, ‘she is a carrot-eater’, Gelman & Heyman, 1999; or conventional ones, such as, ‘he is a Jew, she is an Arab’, Birnbaum et al., 2010), and generics – which are statements made about categories in general that imply the presence of inherent causal properties (e.g. ‘boys are good at math’; Cimpian & Markman, 2011). Here, rather than assessing whether experimentally manipulating the language used to describe novel social categories influenced children’s essentialization of these categories (e.g. Rhodes, Leslie & Tworek, 2012), we investigated whether the language spontaneously used by parents to describe conventional social categories in a naturalistic setting had a similar essentializing effect. Further, whereas Gelman, Taylor and Nguyen (2004) investigated the relations between parents’ and children’s talk about a social category, and the relation between children’s talk and beliefs, here we investigated the relations between parents’ talk and children’s beliefs.

In order to uncover the types of linguistic indices that might contribute to children’s beliefs, we focused on the same two types used by Gelman et al. (2004). One type consisted of explicit content-full expressions of attitudes towards ethnicities, and beliefs regarding ethnic differences. These included parents’ endorsement of ethnic stereotypes, provision of negatively valenced comments about Arabs, and emphasis on differences versus similarities between Jews and Arabs – this latter sort of expression constituting an explicit endorsement of essential differences between ethnicities. The second type consisted of forms emphasizing categories per se, namely count-noun labels and generics, i.e. the forms that have received experimental support for their capacity to promote essentialism. Note that these forms are more implicit in their endorsement of essentialism, insofar as they do not articulate essentialist notions, such as the stability, heritability, or homogeneity of ethnic categories.

In the present study, we sampled parents and 5-year-olds from sub-cultural groups for which there is evidence of differences in essentialist thinking, and assessed various parental factors that could serve as sources of that variation. Specifically, we sampled parent-child dyads from three Jewish groups in Israel: dyads wherein children attended Jewish-only religious kindergartens, dyads wherein children attended Jewish-only secular kindergartens, and dyads wherein children attended Jewish-Arab integrated kindergartens. Previous studies have shown that although by 5 years of age, children from these three groups show evidence of essentialist thinking about ethnicity (‘Jews’ and ‘Arabs’), it was only by 7–8 years of age that systematic differences between groups were found in the degrees of such essentialism – with religious children manifesting the most, children attending integrated schools the least, and secular children falling in the middle (see Birnbaum et al., 2010; Deeb et al., 2011). Given our interest in capturing preceding sources of essentialism, we focused on the youngest age at which such beliefs have been documented in the target populations, i.e. 5-year-olds. Given the previous findings, however, we did not expect to find substantial differences across groups at this age. Note that although we refer to the difference between Jews and Arabs in terms of ethnicity, in Israeli society ‘Jews’ are typically considered all those identified as Jewish-by-religion irrespective of their ethnic origins (e.g. Ethiopians-Jews, North-African Jews, Jews from Arab
countries), and ‘Arabs’ are considered all non-Jews who originate from Arab countries, irrespective of their religious faith (e.g. Muslim, Christian).

The study focused on three general parental sources that could contribute to children’s degree of ethnic essentialism. The first two were of the ‘distal’ type defined above. The first was parents’ own degree of ethnic essentialism. Put simply, do highly essentialist parents have highly essentialist children? The second was uniquely and potentially highly relevant for the social category and context assessed here; namely, parents’ political orientation toward the Israeli–Palestinian conflict. In particular, a higher percentage of ‘national religious adults’ – which composed our religious sample – endorse the notion that Jews are entitled to the land of Israel, and thus oppose a two-state solution with territorial compromises. In turn, secular Jewish Israelis – especially those who send their children to integrated schools – are willing to negotiate towards a compromise, or form one state including both Jews and Arabs. Thus, the hypothesis here was that the less in favor of territorial compromises parents were, the more they would endorse ethnic essentialism, and thus the more ethnic essentialist their children might be.

The third general source assessed here consisted of the proximal source; namely, parents’ linguistic input regarding ethnicity. To this end, we created a book depicting Jews and Arabs in various contexts, videotaped parents talking to their children while viewing the book, and later analyzed their discourse (see Gelman et al., 2004, for a similar book on gender). Discourse analyses allowed us to assess differences among parents of different sub-cultural groups in how they talk about ethnicity to their children, whether these differences account for children’s essentialist thinking, and whether children’s essentialism is most affected by how parents talk or what parents say.

**Method**

**Participants**

Participants were 76 Jewish Israeli parent–child dyads from three different social groups: children attending Jewish-only secular kindergartens ($N = 31$, 14 girls, $M_{age} = 5.7$ years, $SD = 0.4$), children attending Jewish-only religious kindergartens ($N = 29$, 16 girls, $M_{age} = 5.6$ years, $SD = 0.4$), and children attending Jewish-Arab integrated kindergartens ($N = 16$, 9 girls, $M_{age} = 5.6$ years, $SD = 0.5$). For the sake of convenience, we refer to both children and parents from each group as secular, religious, and integrated. Eighty-seven percent of the parents were mothers, similarly distributed across the social groups. Participants volunteered to participate after seeing announcements about the study in the children’s kindergartens. Signed parental permission was obtained for all participants.

**Procedure**

The experimenters met each dyad twice at the family home. In the first meeting, the experimenters handed the parent the experimental book, and asked them to read it together with their child, talking about the different kinds of people in the book. Parents were told in advance that the interaction would be videotaped. After the book task, one of the experimenters presented the Stability task to the child (see details below). During that time, the parent completed the essentialism tasks and political orientation questionnaire. In the second meeting – a few days after the first – one experimenter met with the child and completed the remaining essentialism tasks (ECQ and Adoption, see details below). The book task was always presented first in order to minimize the potential influence of the essentialism tasks on parents’ spontaneous discourse. The questionnaires and tasks were presented in random order for each participant. As this was part of a larger project, participants in fact completed a larger battery of tasks. Here we report only those pertinent to the present purpose.

**Tasks**

**Language measures – the book**

The book, entitled ‘What different people do’, was created in our laboratory based on the one used by Gelman et al. (2004) in their study on gender. Each page depicted Arab or Jewish characters, and included minimal text consisting of the characters’ names and activities (see Figure 1 for examples). Ethnicity was indicated by visual cues in the characters themselves (e.g. a yarmulke for Jews, and a head-shawl for Arabs), in the background (e.g. Hebrew- or Arabic-language newspaper next to the characters), and the proper names of the characters (e.g. Lior or Ali).

Half of the pages in the book depicted contexts that were identified in a pre-test as stereotypical of the ethnicity of the character, and the other half depicted counter-stereotypical contexts. For the pre-test, 10 Jewish and 10 Arab adults were asked to generate as many associations as they could regarding an Arab boy/girl/ woman/man, and a Jewish boy/girl/woman/man. Out of the total 211 associations produced, we chose to assess the typicality of 72 different activities and professions.
that could be represented in a picture and were not negatively valued. Twenty Jewish and 21 Arab undergraduates were asked to rank these 72 activities on a scale of 1 (‘typical of Jews and not typical of Arabs’) to 5 (‘typical of Arabs and not typical of Jews’). The eight most exclusively typical activities of each ethnicity were selected for inclusion in the book (see Table 1).

Four versions of the book were created, such that ‘Arab’ pages in one book were ‘Jewish’ pages in the other book (and vice versa), stereotypical activities were paired with one ethnicity in one book, but with the other in the other book, and the order of the pages varied. All four versions were identical in the distribution of page types, such that each book was composed of four Arab-stereotypical pages, four Jewish-stereotypical, four Arab-counter-stereotypical, and four Jewish-counter-stereotypical. In the example in Figure 1, one book included Lior and the Abidats, and the other Ali and the Levis. Importantly, given that the goal of the book task was to elicit parents’ voluntary discourse about ethnicity, ethnic labels were absent from the book, and at no point were parents explicitly instructed to talk about ethnicity.

Conversations were transcribed based on the procedures described by Gelman et al. (2004). Each video session was transcribed verbatim by one coder and checked by an additional coder, with disagreements resolved by a third coder. The unit of analysis for transcribing and coding was the utterance, defined as a continuous unit of conversation. Continuity was defined as sequential talk without any stops or interruptions by the other speaker. An utterance could have been a sentence, a few words, or even a single word, and what indicated the end of it was usually a rising or falling intonation, or a change of speaker. When intonation and pausing conflicted with one another, intonation was used. A total of 17,685 utterances were identified, with approximately 74% of them being on-task. There were no significant differences among social groups on the average number of utterances produced or the percentage of on-task utterances.

The 13,085 on-task utterances were coded by two research assistants working independently and blind to participants’ group membership. Codes included linguistic indices that either expressed content-full messages about ethnicity – (a) valence, (b) stereotypes, and (c) contrasts – or formal markers of ethnic categories – (d) labeling and (e) generics. For all five indices, we

Table 1 Complete set of activities depicted in the experimental book

<table>
<thead>
<tr>
<th>Arabic Stereotypic</th>
<th>Mean Typicality Score (1–5)</th>
<th>Jewish Stereotypic</th>
<th>Mean Typicality Score (1–5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>carry a jug on the head</td>
<td>4.7</td>
<td>a woman working in a hi-tech company</td>
<td>1.42</td>
</tr>
<tr>
<td>one man married to several women</td>
<td>4.63</td>
<td>pilot</td>
<td>1.49</td>
</tr>
<tr>
<td>a shepherd</td>
<td>4.61</td>
<td>policewoman</td>
<td>1.54</td>
</tr>
<tr>
<td>riding a donkey</td>
<td>4.56</td>
<td>children with oxidized hair</td>
<td>1.68</td>
</tr>
<tr>
<td>construction worker</td>
<td>4.15</td>
<td>a family with two children and a dog</td>
<td>1.71</td>
</tr>
<tr>
<td>Beygale (Israeli Pretzel) seller</td>
<td>4.12</td>
<td>security guard</td>
<td>1.76</td>
</tr>
<tr>
<td>living near your close relatives</td>
<td>4.12</td>
<td>a man and a woman sitting in a coffee-shop smoking</td>
<td>1.76</td>
</tr>
<tr>
<td>carpets merchant</td>
<td>4.00</td>
<td>a smoking woman</td>
<td>1.92</td>
</tr>
</tbody>
</table>

Note: The scale went from 1 (‘typical of Jews and not typical of Arabs’) to 5 (‘typical of Arabs and not typical of Jews’).

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calculated both ‘absolute’ measures reflecting the frequency of critical aspects of each index, and ‘bias’ measures reflecting critical biases manifested in each index. Inter-coder agreement was assessed on 10% of the transcripts, and it was above 75% for all codes, with discrepancies resolved by a third coder. All indices were calculated in terms of their frequency out of 100 on-task utterances.

(a) **Valence** was coded when a speaker made either an explicit positive (e.g. ‘what a nice family’) or negative (e.g. ‘Yuck!’) comment about a character or activity. Given our interest in attitudes towards the out-group, the measures of valence were calculated only in regard to Arab pages (there were in fact very few valenced comments made on Jewish pages). The ‘positive valence score’ was the number of positive comments made in regard to Arab pages; the ‘negative valence score’ was the number of negative comments; the ‘total valence score’ was the sum of the previous two; and the ‘valence bias score’ was the number of positive minus negative comments. (b) **Stereotypes**: Two types of stances toward the stereotype depicted on the pages were coded: affirmation (e.g. ‘an Arab can’t work as a security guard’), and negation (e.g. ‘a Jewish woman can also hold a jug on her head’). We calculated the number of both affirmation and negation statements made in regard to both Arabs and Jews. The ‘stereotype bias score’ was the number of total stereotype affirmations minus negations. (c) **Contrasts**: We calculated the number of utterances including a statement of differences between the two ethnicities (e.g. ‘We marry only with one woman, but Arabs can marry more than one’), and those including a statement of similarity (e.g. ‘Jews also work as builders, not just Arabs’). The ‘contrast bias score’ was the number of utterances stating differences minus those stating similarities. (d) **Labeling**: In Hebrew, it is often the case that the morphology of count-nouns and adjectives is identical. For that reason, we counted as instances of labeling all cases in which the parent explicitly mentioned an ethnic label (e.g. ‘he is [a Jew/Jewish]’, ‘this woman is [an Arab/Arabic]’). Absolute scores were calculated for the number of times Arabs were labeled, the number of times Jews were labeled, and the sum of both. The ‘labels bias score’ was the number of Arab minus Jews labels. (e) **Generics** were coded when the parent used generic language either by using labels as bare plurals (e.g. ‘Arabs don’t do this’), indefinite singulars (e.g. ‘Jew is smart’), or using generalizations (e.g. ‘shepherds feed goats’). We calculated the number of times generics were used in regard to Arabs, in regard to Jews, and the sum of both. The ‘generics bias score’ was the number of generics used in regard to Arabs minus to Jews.

**Essentialism measures**

Children were read and instructed on all tasks. Parents completed shorter, paper-and-pencil versions of the tasks. Other than these procedural differences, the tasks for the two age groups were identical.

(a) **ECQ**: The Essentialism Components Questionnaire has been used with children from ages 5 to 12, and has been shown to reliably distinguish between children from different socio-cultural backgrounds, and among different categories (Deeb et al., 2011; Diesendruck & Haber, 2009). The ECQ assessed beliefs regarding three essentialist components: (1) psychological distinctiveness (four questions: ‘To what extent do Arabs and Jews differ in the way they think? What they like? In the way they behave? In the way they look?’), (2) physical distinctiveness (four questions: ‘To what extent do Arabs and Jews differ in what they have inside their body? Kind of blood they have?’ and, ’Is it possible for a Jew/Arab to do some things and then become an Arab/Jew?’), and (3) heritability of category membership (four questions: ‘Is it possible that a Jewish/Arab mother will give birth to an Arab/Jewish baby?’ and, ‘If a child is born and raised within a Jewish/Arabic family when he was a baby, is it possible that he will become an Arab/Jew?’). The options for answering ‘extent’ questions were: 1 – Not at all different, they are similar; 2 – Differ a little; 3 – Very different; 4 – Totally different. The options for answering ‘possibility’ questions were: possible, maybe possible, or impossible, coded as 1, 2.5, and 4, respectively. Higher scores signified a higher degree of essentialism. Analyses were conducted using the average scores in the questions composing the different components. Parents performed at floor levels on the ‘physical distinctiveness’ component (i.e. each group scored 1.3 or less on average) and thus their data were not analyzed further.

(b) **Stability task**: This task – adapted from Hirschfeld (1996) – assesses beliefs about the developmental stability of social categories. Participants were shown triads of line-drawn human characters – an adult and two children – representing a combination of two categories. The categories used were ethnicity (Jew/Arab), social status (rich/poor), religiousness (religious/secular), body build (fat/thin), and profession (doctor/teacher). In each triad, each of the children resembled the adult on one of the categories (e.g. ethnicity) but differed on the other (e.g. profession) (see Figure 2). The experimenter asked participants which of the two children in the pictures was the adult when he was a child. Participants saw a total of ten different triads, such that each category appeared on four triads. Given our focus on ethnicity, the dependent measure was the
number of triads – out of the four in which ethnicity was included – in which participants selected the ethnicity match (0–4). Parents performed at ceiling on this task (i.e. scored above 3.7 on average), and thus we did not analyze their data further.

(c) Adoption task: This task – adapted from Hirschfeld (1996) – assesses beliefs about the extent to which social category membership is inherited. Altogether, participants were given a series of stories with different types of category or attribute contrasts. Specifically, stories in which biological parents and caretakers contrasted in terms of: religiosity (religious/secular), social status (poor/rich), physical attributes (tall/short, straight/curly hair), and psychological attributes (like TV/books, like dogs/cats). Given the focus of the paper, we report only the data on the ethnicity stories. In these, participants were told a short story about a couple from Ethnicity A (e.g. Jews) who gave birth to a baby, but due to the fact that they had to work for long hours, they placed the baby under the care of another couple – who belonged to Ethnicity B (e.g. Arabs). The latter was described as taking care of and loving the baby. The experimenter asked participants, what will the baby’s ethnicity be when he/she grows up: the biological parents’ or the caretakers’? The dependent measure was the dichotomous choice of the participant, i.e. a score of 1 for a choice of the biological parents, and 0 for caretakers. The ethnicities of the biological parents and caretakers were counterbalanced across participants.

Political orientation measure

Parents filled out six questions from the Peace Index of the Tami Steinmetz Center for Peace Research (2005), which assessed their attitudes toward the Israeli–Palestinian conflict (see Appendix). Responses rendered a single index, ranging from 0 – pro-negotiations orientation, i.e. willingness to negotiate with Palestinians and general belief about the possibility of achieving lasting peace – to 1 – anti-negotiations orientation, i.e. unwillingness to negotiate and disbelief about the possibility of lasting peace.

Results

We first present analyses on children’s essentialist beliefs – our main ‘output’ measures. Next, we present analyses on differences among social groups on parents’ ‘input’ measures. Finally, we report the main analyses, namely, correlations and regressions looking at the relation between parents’ input measures and children’s essentialism.

Social group effects on children’s essentialism

(a) ECQ: We conducted a MANOVA using social group as the between-subjects factor, and children’s scores on the three ECQ components as the dependent variables. The MANOVA revealed an overall significant effect of social group, $F(6, 144) = 3.38, p < .005, \eta^2 = .13$. The individual ANOVAs revealed that the effect of social group was significant only with regard to psychological distinctiveness, $F(2, 73) = 6.52, p < .005, \eta^2 = .15$, and physical distinctiveness, $F(2, 73) = 3.29, p < .05, \eta^2 = .08$. Scheffe post-hoc analyses revealed that on psychological distinctiveness, religious children scored significantly higher than both secular and integrated children ($ps < .05$); on physical distinctiveness, secular children scored significantly higher than religious children ($p < .05$, one-tailed). Figure 3a displays these data.

(b) Stability task: An ANOVA using social group as the between-subjects factor, and children’s scores on the stability task as the dependent variable, revealed that the effect of social group was not significant ($p > .3$). Nonetheless, analyses against chance performance (chance = 2 selections of the ethnicity-match) revealed that whereas children from the secular ($M = 2.13, SD = .96$) and integrated ($M = 2.19, SD = 1.17$) groups selected no differently from chance, religious children ($M = 2.52, SD = 1.18$) selected ethnicity-matches significantly more often than would be expected by chance, $t (28) = 2.35, p < .05$. 

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Adoption task: A chi-square analysis comparing the number of children in the three social groups who selected either the biological or adoptive parents revealed no difference across social groups, with a similar majority of children from all groups determining the ethnicity of the target baby according to the ethnicity of the biological parents (71% of secular children, 72% of religious, and 75% of integrated).

In sum, confirming previous findings with similar populations (Birnbaum et al., 2010; Deeb et al., 2011), we found that at age 5, there were slight differences across social groups in their essentialist beliefs towards ethnicity. These differences were indeed in the direction found among older children in these previous studies, namely, religious children revealing the strongest essentialist beliefs and the integrated children the weakest.

Social group effects on parents’ measures

Essentialism

As reported in the Method, we analyzed parents’ essentialism in terms of two components of the ECQ, and the Adoption task.

(a) ECQ: A MANOVA with social group as the between-subjects factor, and parents’ scores on the psychological distinctiveness and heritability components of the ECQ as the dependent variables revealed an overall significant effect of social group, $F(4, 146) = 4.41, p < .005, \eta^2 = .11$ (see Figure 3b). The individual ANOVAs revealed that the effect of social group was significant both with regard to psychological distinctiveness, $F(2, 73) = 3.93, p < .05, \eta^2 = .10$, and heritability, $F(2, 73) = 5.91, p < .005, \eta^2 = .14$. Scheffe post-hoc analyses revealed that on psychological distinctiveness, religious parents scored significantly higher than integrated parents; on heritability, religious parents scored significantly higher than both integrated and secular parents ($ps < .05$).

(b) Adoption task: A chi-square analysis comparing the number of parents in the three social groups who determined the ethnicity of the target baby according to either the biological or adoptive parents revealed that more religious parents (38%) selected the biological parents than either integrated (13%) or secular (0%) parents, $\chi^2(2, 75) = 15.52, p < .001$.

Political orientation

An ANOVA revealed a significant effect of social group on parents’ political orientation scores, $F(2, 73) = 29.91, p < .001, \eta^2 = .45$. Confirming our assumption about the samples, religious parents were the most anti-negotiation ($M = .69, SD = .22$), followed by secular parents ($M = .39, SD = .19$), and then integrated parents ($M = .26, SD = .15$; all post-hoc $ps < .05$, one-tailed).

Language measures

We conducted ANOVAs comparing parents’ speech from the three social groups in terms of all the content-full (four indices on valence, five on stereotypes, and three on contrasts), and formal indices (four on labels and four on generics) described in the Method. Table 2 displays the descriptive statistics for all these measures broken down by social group. Social group only had a significant effect on the 'contrast bias scores', $F(2, 73) = 3.60, p < .05, \eta^2 = .09$, such that religious parents had higher scores than did secular parents ($p < .05$). For none of the absolute scores
In order to further evaluate possible differences across social groups, we conducted one-sample t-tests against a no-bias criterion (i.e., a score of 0) on all ‘bias’ measures. On *valence*, secular parents’ bias score was significantly lower than 0, $t(30) = -1.89, p < .05$ (one-tailed). In other words, they provided more negative than positive statements about Arabs. Regarding *stereotypes*, secular parents’ bias score was significantly higher than 0, $t(30) = 1.84, p < .05$, and religious parents’ score approached significance, $t(28) = 1.68, p = .052$ (one-tailed). Thus, parents from these groups tended to affirm more than negate stereotypes about Jews and Arabs. In terms of *contrasts*, both secular and religious parents’ bias scores were significantly higher than 0, $t(30) = 1.89, p < .05$ (one-tailed), and $t(28) = 4.38, p < .05$, respectively. In other words, parents from these groups provided more statements of differences than of similarities between Jews and Arabs. In terms of the categorization indices, on labeling we found that the bias scores of both religious, $t(28) = 2.57, p < .05$, and secular, $t(30) = 2.56, p < .05$, parents were significantly higher than 0, but scores of the integrated parents were not. Finally, on generics, only religious parents’ bias score was significantly higher than 0, $t(28) = 2.07, p < .05$. That is, religious parents provided more labels and generics when referring to Arabs than when referring to Jews, and secular parents did so in terms of labels.

**Table 2** *Means (and SDs) of parents’ language measures*

<table>
<thead>
<tr>
<th>Language measure</th>
<th>Social group</th>
<th>Religious</th>
<th>Secular</th>
<th>Integrated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Content</td>
<td>Bias (Pos – Neg)</td>
<td>−0.07 (1.14)</td>
<td>−0.19 (0.57)</td>
<td>0.01 (0.23)</td>
</tr>
<tr>
<td></td>
<td>Positive</td>
<td>0.25 (0.77)</td>
<td>0.16 (0.48)</td>
<td>0.12 (0.37)</td>
</tr>
<tr>
<td></td>
<td>Negative</td>
<td>0.32 (0.79)</td>
<td>0.36 (0.65)</td>
<td>0.11 (0.29)</td>
</tr>
<tr>
<td></td>
<td>Total (Pos + Neg)</td>
<td>0.56 (1.08)</td>
<td>0.52 (1.00)</td>
<td>0.23 (0.64)</td>
</tr>
<tr>
<td>Stereotype</td>
<td>Bias (Aff – Neg)</td>
<td>0.30 (0.97)</td>
<td>0.24 (0.74)</td>
<td>−0.09 (0.52)</td>
</tr>
<tr>
<td></td>
<td>Aff Arabs</td>
<td>0.11 (0.36)</td>
<td>0.13 (0.42)</td>
<td>0.00 (0.00)</td>
</tr>
<tr>
<td></td>
<td>Neg Arabs</td>
<td>0.00 (0.00)</td>
<td>0.00 (0.00)</td>
<td>0.13 (0.50)</td>
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<td>Aff Jews</td>
<td>0.19 (0.87)</td>
<td>0.15 (0.47)</td>
<td>0.03 (0.12)</td>
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<td>Stereotype</td>
<td>Bias (Diff – Sim)</td>
<td>1.52 (1.87)</td>
<td>0.38 (1.16)</td>
<td>0.84 (2.04)</td>
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<td>Difference</td>
<td>1.60 (1.99)</td>
<td>0.69 (1.66)</td>
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<td>Similarity</td>
<td>0.09 (0.27)</td>
<td>0.31 (0.91)</td>
<td>0.22 (0.60)</td>
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<td>Form</td>
<td>Labels</td>
<td>Bias (Arab – Jew)</td>
<td>1.19 (2.49)</td>
<td>1.66 (3.62)</td>
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<td>Total Arab</td>
<td>2.80 (3.97)</td>
<td>2.05 (3.76)</td>
<td>1.85 (3.34)</td>
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<td>Total Jew</td>
<td>1.61 (3.36)</td>
<td>0.39 (0.88)</td>
<td>1.08 (2.39)</td>
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<td>Total (Arab + Jew)</td>
<td>4.41 (6.93)</td>
<td>2.44 (4.09)</td>
<td>2.93 (4.07)</td>
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<td>Generics</td>
<td>Bias (Arab – Jew)</td>
<td>1.29 (3.35)</td>
<td>−0.26 (2.71)</td>
<td>1.52 (4.73)</td>
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<td>Total Arab</td>
<td>3.90 (3.33)</td>
<td>2.59 (3.08)</td>
<td>3.76 (4.44)</td>
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<td>Total Jew</td>
<td>2.61 (2.06)</td>
<td>2.85 (2.79)</td>
<td>2.24 (2.12)</td>
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<td>Total (Arab + Jew)</td>
<td>6.50 (4.40)</td>
<td>5.44 (5.22)</td>
<td>6.00 (5.15)</td>
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Relations between parents’ belief measures, parents’ language measures, and children’s essentialism

In order to start assessing the relations between parents’ input measures and children’s essentialism, we conducted correlational analyses between parents’ measures (both beliefs and language) and children’s essentialism measures. Table 3 displays all the correlations between the assessed measures.

First, the analyses revealed certain inter-correlations among parental measures. In particular, there were correlations among parents’ essentialism measures, between essentialism measures and political orientation, and among language measures. Importantly, there were also a few correlations between parents’ belief and language measures. Namely, political orientation significantly correlated with parents’ contrast bias and frequency of labeling Arabs, and parents’ ECQ heritability scores significantly correlated with parents’ generics bias. These analyses suggest, first, that there was some consistency in parents’ ethnicity-related beliefs, and also in the manner in which they spoke to their children about ethnicity, and second, parents’ linguistic input might serve as mediating variables for the transmission of their beliefs to children.

For this latter implication, the second and more central correlations were those between parental measures and children’s essentialism. Here we found that
Table 3  Correlations between parents’ and children’s measures

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Note: Psych. Dist. = ECQ psychological distinctiveness score; Phys. Dist. = ECQ physical distinctiveness score; Adopt. Parents = Choice of adoptive parents in Adoption task. Colored cells denote significant correlations, p < .05.

children’s ECQ psychological distinctiveness scores correlated with parents’ anti-negotiations political orientation, generics bias score, generics Arab score, and stereotype bias score. The correlation with parents’ tendency to select adoptive parents in the adoption task approached significance (p = .063). Furthermore, children’s stability scores significantly correlated with parents’ anti-negotiations political orientation, and labeling Arab score. No other correlations were significant. In particular, there were no direct correlations between parents’ and children’s essentialism scores on corresponding measures.

Regressions

In our final analyses, we conducted regressions predicting children’s essentialism. We first conducted two stepwise regressions using as predicted variables the two measures of children’s essentialism identified in the above analyses as being correlated with various parental measures. We entered as predictors the child’s social group and the parental indices listed in Table 3. Regressions excluding children’s social groups rendered similar results to the ones presented here. Also, given their redundancy, we conducted these regressions using generics Arabs and label Arabs scores, instead of the respective ‘bias’ scores. Regressions using the latter rendered very similar results. We present here the more theoretically intuitive regressions using the absolute Arab scores.

The regression on children’s ECQ psychological distinctiveness scores revealed that only one of the parents’ input measures made a unique and significant contribution, $R^2 = .08, F(1, 73) = 6.34, p < .05$, namely, parents’ generics Arab score ($Beta = .28, t = 2.52, p < .05$). The contribution of parents’ political ideology approached significance ($Beta = .22, t = 1.96, p = .054$). The regression on children’s stability scores revealed that only one of the parents’ input measures made a unique and significant contribution, $R^2 = .05, F(1, 73) = 4.18, p < .05$, namely, parents’ Arab labeling score ($Beta = .23, t = 2.05, p < .05$). In neither regression did social group, parents’ essentialism, or parents’ linguistic attitudinal indices make a significant contribution.

Following up on the findings from the above regressions and correlations, we conducted a set of regressions in order to assess possible mediational models. In particular, these initial analyses intimated the plausibility of two theoretical models, one for each of the children’s essentialism measures. For children’s ECQ psychological distinctiveness scores, the model included parents’ political orientation as the independent factor, and parents’ generics Arab scores as the mediator. For children’s stability scores, the model again included parents’ political orientation as the independent factor, and parents’ labeling Arab scores as the mediator. Each of these models was assessed by conducting, first, the simple linear regressions between the factors, then a regression including the independent and mediator factors to assess a possible reduction in the contribution of the independent factor, and finally a Sobel test on the coefficients.

For the model on children’s ECQ psychological distinctiveness scores, the simple regressions revealed that although both parents’ political orientation ($Beta =$
religious parents were more essentialist about ethnicity and generics about Arabs scores (Beta = .28, t = 2.51, p < .05) made significant contributions to children’s scores, parents’ political orientation did not significantly predict parents’ generics Arab scores (p = .54). Moreover, when both parents’ political orientation and generics about Arabs scores were entered together into a model, the former remained a significant contributor to children’s scores (Beta = .22, t = 2.00, p < .05). In other words, these results indicated that the effect of parents’ political orientation on children’s psychological distinctiveness scores was not significantly mediated by parents’ generics use. In fact, the Sobel test revealed that less than 8% of the effect of parents’ political orientation on children’s psychological distinctiveness scores was mediated by parents’ use of generics about Arabs (p = .55).

As for the model on children’s stability scores, the simple regressions revealed that parents’ political orientation (Beta = .23, t = 2.05, p < .05) and labeling Arab scores (Beta = .23, t = 2.07, p < .05) made significant contributions to children’s scores, and parents’ political orientation significantly predicted parents’ labeling Arab scores (Beta = .24, t = 2.08, p < .05). Moreover, when both parents’ scores were entered together into a model, political orientation was no longer a significant contributor to children’s scores (Beta = .19, t = 1.63, p = .11). In other words, these results indicated that the effect of parents’ political orientation on children’s stability scores seems to have been mediated by parents’ labels use. Nonetheless, the Sobel test revealed that just over 19% of the effect of parents’ political orientation on children’s stability scores was mediated by parents’ use of labels about Arabs, a contribution that did not reach significance (p = .19).

Discussion

The goal of the present study was to examine which of various sources of parental input significantly account for Israeli Jewish children’s essentialist beliefs about ethnicity. To that end, we investigated parent–child dyads from three populations in which children had been previously shown to manifest different degrees of essentialism, and at an age in which such differences are just starting to emerge (Birnbaum et al., 2010; Deeb et al., 2011) – patterns that were confirmed in the present study.

The present study revealed clear and fairly cohesive social group differences amongst parents regarding various markers of ethnic attitudes and beliefs. Overall, religious parents were more essentialist about ethnicity than the other groups of parents, were more against negotiations with Palestinians, and were more biased in their attitudes and emphases on categorization when talking about ethnicity to their children – although on some linguistic indices, secular parents often manifested similar levels. It is interesting to point out in terms of the language measures that parents from the three different social groups did not differ systematically on the absolute frequency of use of the various indices. For instance, parents from the integrated group used labels and generics about Arabs to the same extent as religious and secular parents. Nonetheless, only the latter two manifested a significant bias on these indices, using them more often in regard to Arabs than Jews.

The critical question was which of these various sources of variation in parents’ input most contributed to children’s ethnic essentialism. The correlational analyses revealed that almost all sources contributed. One interesting finding to note in this regard is that these various sources made a contribution only in regard to two of the children’s essentialism measures assessed here: beliefs about the developmental stability of ethnic membership, and beliefs about fundamental psychological differences between ethnicities. We offer two possible directions for interpreting this finding. First, technically, it is possible that in some measures there was less variability in children’s responses, thus making it hard to find co-variation with the parental measures. This was certainly the case for the Adoption task, which structurally limited the variance in responses. A more conceptual explanation has to do with the fact that young children’s essentialist beliefs about psychological traits have been found to be fairly incoherent (Gelman, Heyman & Legare, 2007), something that was replicated in the correlational analyses reported here. Thus it should not be too surprising that we did not find consistency across the different measures in terms of their relations to parental measures. Following this line, it appears that the measures in which we did not find links are the ones most ‘biological’ in nature (e.g. ECQ heritability component; see Haslam et al., 2002, for a discussion). In other words, perhaps parental input modulates children’s essentialist beliefs vis-à-vis characteristics of social categories that children a priori view as more malleable: people’s preferences, beliefs, and aspirations. Importantly, Haslam and colleagues found that it was precisely these aspects of essentialist thinking that were most strongly associated with prejudice.

The correlational findings notwithstanding, when all sources were entered into regressions, the one that most reliably contributed to children’s ethnic essentialism was parents’ linguistic marking of ethnic categories – i.e. their use of labels and generics, primarily in regard to Arabs. This is somewhat of a counter-intuitive finding. After all, it attests that even though there were correla-
tions between parents’ own essentialist beliefs, their explicit articulation of fundamental differences between Jews and Arabs, and their use of labels and generics, it was precisely these latter, more implicit and formal markers of the conversation that contributed to children’s essentialism. The only belief-related parental source that also contributed was political orientation, although it contributed to only one of the essentialism measures, and the contribution was negligible when entered into regression models.

On the one hand, it could be argued that the above pattern of relations between parental input and children’s essentialist beliefs is analogous to relations found regarding attitudes. There too it was parents’ implicit attitudes or behaviors – not explicit ones – that most contributed to children’s racial attitudes (Castelli et al., 2009; Pahlke et al., 2012). On the other hand, it is important to point out certain substantive differences between these two sets of findings.

First, part of the conclusions drawn in the above studies as to why it was parents’ implicit rather than explicit racial attitudes that predicted children’s racial attitudes had to do with the social undesirability or unacceptability of negative attitudes. In other words, parents’ explicit responses may not have reliably captured their attitudes. Here we found that although there likely was also an element of social desirability, parents were fairly open about their political orientation, and did not shy away from expressing ethnic essentialist beliefs or endorsing stereotypes and negative attitudes towards Arabs. Evidence for this was the reliable differences across parents’ social groups on all these dimensions, and the fact that many of these parental measures intercorrelated. A further implication of this observation is that the pattern of findings reported here might not translate universally, for instance, to cultures where discussions about racial differences are less acceptable (Pahlke et al., 2012; Pauker et al., 2010). In a sense, though, it is all the more surprising that despite the relative tolerance to explicit ethnic attitudes in the Israeli political environment, it was still the implicit markers of the conversations, rather than the explicit ones, that contributed the most to children’s ethnic essentialism. In this regard, it is also possible that whereas the implicit markers play a crucial role in the formation of young children’s essentialist beliefs, as children mature parents’ explicit markers become more significant – perhaps contributing to the larger differences in the ethnic essentialism of 8- and 12-year-olds from the groups investigated here (Deeb et al., 2011).

A second important difference between the two bodies of work is that, whereas the relations reported in the work on attitudes revolved around the same construct (parents’ and children’s attitudes), here the relations were between distinct constructs (parents’ linguistic markers of categories and children’s essentialist beliefs). In other words, whereas parents might somehow manifest their implicit attitudes via subtle behavioral cues (Castelli, De Dea & Nesdale, 2008), it is less clear how parents transmitted essentialist beliefs via formal linguistic markers. In fact, our mediational analyses did not reveal systematic mediation of parents’ political attitudes via their language use. The only indication in this regard was that political attitudes might have been partly transmitted via parents’ labeling of Arabs. Evidently, it is possible that parents transmit their attitudes in verbal or non-verbal ways that were not manifested in the present task or that were not caught by our coding categories. It is also possible that our sample size did not provide enough power to capture trends that existed in the data. Clearly, how parents’ beliefs and attitudes translate into cues that children can pick up on remains an issue for future studies. What the present study does make clear is that categorization cues manifest in the parents’ speech indeed predict children’s ethnic essentialism.

In general, we raise two alternative explanations for the privileged status of formal linguistic categorization markers as instigators of children’s essentialism. The first explanation is that such linguistic markers may do more than simply mark categories; they might actually carry substantive conceptual implications (Carey, 1995). The argument is that category labels (a) make the category – rather than the individual exemplar – salient, and (b) imply that what is being said is generalizable across exemplars. Especially in the context of social categories, Waxman (2013) notes that labels may in fact point out to children which distinctions available in the environment are to be treated as firm bases for induction. Generics further imply that the category has deep, inherent, and stable characteristics that are resistant to exceptions. And in fact, generics have been shown to correlate with adults’ own essentialist thinking, both in experimental set-ups (Rhodes et al., 2012) and in natural discourse (Gelman et al., 2004), and developmental studies reveal that the use of count-noun labels (Gelman & Heyman, 1999) and generics (Cimpian & Markman, 2011) impact children’s essentialization of a category. Following this argument, it was expected that the more children in our study were exposed to labels and generics in reference to ethnicity, the more they were to infer that ethnic groups are deeply, inherently, and stably different.

A second explanation argues that essentialism per se does not derive from linguistic markers, but instead is an intuitive conceptualization of social kinds (Gil-White,
provided critical comments, and approved the final version of the paper for submission.

References


Acknowledgments

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Authorship note

G. Segall and G. Diesendruck developed the study idea. All authors contributed to the study design. G. Segall coordinated the data collection, transcription, coding, and analyses. G. Segall and G. Diesendruck analysed the data. G. Diesendruck drafted the paper. All authors

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Transmission of essentialism


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Appendix

Parents’ Political Orientation Questionnaire

a) What is your opinion regarding a peace negotiation between Israel and the Palestinian authority? (1 – strongly in favor, to 4 – strongly against)

b) Do you believe that an Israeli–Palestinian negotiation will lead to peace in the coming years? (1 – strongly believe, to 4 – strongly don’t believe)

c) There are people who argue that as long as Israel keeps the occupied territories, Palestinians will keep performing terrorist actions. Others argue that even if Israel ceases its occupation of Palestinian territories, Palestinian attacks will not stop and might even get worse. Which of these two claims is closer to your opinion? (1 – first, 2 – second)

d) How would you prefer the state of Israel to define itself? (1 – an Arab state, 2 – a state of all its citizens (Arabs and Jews), 3 – a bi-national state, 4 – a Jewish democratic state, 5 – the Jewish people’s state)

e) How can we improve relations between Arab and Jewish citizens in Israel? (1 – through joint social and economic meetings, 2 – I don’t have an opinion, 3 – through joint political activity, 4 – through equality between Jews and Arabs, 5 – it’s hard to improve the relations, 6 – there is no need to improve)

f) Would you be interested in participating in such activities? (1 – Yes, 2 – No opinion, 3 – No)