



### *Brief Report*

## **Four-year-olds' beliefs about how others regard males and females**

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Children's awareness of how others evaluate their gender could influence their behaviours and well-being, yet little is known about when this awareness develops and what influences its emergence. The current study investigated culturally diverse 4-year-olds' ( $N = 240$ ) public regard for gender groups and whether exposure to factors that convey status and highlight gender influenced it. Children were asked whether most people thought (i) girls or boys, and (ii) women or men, were better. Overall, children thought others more positively evaluated their own gender. However more TV exposure and, among girls only, more traditional parental division of housework predicted children stating that others thought boys were better, suggesting more awareness of greater male status. Children's public regard was distinct from their personal attitudes.

Young children are immersed in an environment riddled with messages about the status of males and females (Rudman & Glick, 2008). Yet little is known about when an awareness of society's differential regard for males versus females emerges, what kind of factors might accelerate the development of this awareness, and how this awareness relates to other dimensions of children's gender identities. How young children think other people view their gender ('public regard') is a major component of social identity (Ashmore, Deaux, & McLaughlin-Volpe, 2004) and has potential to affect how children behave and view themselves (Rivas-Drake, Hughes, & Way, 2008). Previous research suggests that such knowledge is minimal in early childhood and shows continued development through middle childhood (e.g., Brown & Bigler, 2004; Liben, Bigler, & Krogh, 2001). Examining public regard during early childhood is important, however, as during this time, children actively seek out information about gender and are beginning to form their gender identities (Martin & Ruble, 2004).

Although most young children may show little awareness of gender-status differences, there may be exceptions. Just as there is variability in young children's

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beliefs about gender stereotypes (Liben & Bigler, 2002; Martin & Halverson, 1981), there may be variability in children's public regard. Specifically, some children may be more aware of the higher status of males and thus show lower public regard due to frequent exposure to factors that make gender-status distinctions salient (Hilliard & Liben, 2010). Recent research on ethnic public regard with adults supports this idea. Second- compared with first-generation Black immigrants were found to have lower public regard, presumably in part because second-generation Black immigrants had been more exposed to mainstream messages about the lower status of Blacks in America (Wiley, Perkins, & Deaux, 2008).

Two factors may make gender-status distinctions salient to young children in the home. First, television is rife with male characters who are higher in status and more competent and dominant than female characters (Aubrey & Harrison, 2004; Rivadeneyra, 2011; Signorielli, 1990). Male characters are also represented more (Davis, 2003; Paek, Nelson, & Vilela, 2011), which may implicitly suggest that males are more important. Second, inequality between mothers and fathers could convey messages about status. Parents' division of housework is a tangible behaviour, readily observable by young children, and has been shown to affect children's gender concepts (Weinraub, Clemens, Sockloff, Ethridge, Gracely, & Myers, 1984). If mothers engage in more menial chores than do fathers, children may perceive females as second-class citizens. Thus we predicted that increased television viewing and housework inequality between parents would be associated with greater awareness of male privileged status.

It is also important to disentangle public regard from dimensions of gender identity that involve personal evaluations of one's gender, such as private regard and intergroup attitudes (Ashmore *et al.*, 2004). Theories of reflected appraisal would predict that public and private regard would be positively correlated since the way others see us shapes the way we see ourselves (Mead, 1934). Alternatively, it may be advantageous for lower-status groups, such as girls, to separate the two views, similar to research finding less concordance between public and private regard for lower-status ethnic groups (Crocker, Luhtanen, Blaine, & Brodnax, 1994). Thus, we anticipated that children might rely on their personal feelings about gender to infer what other people may think, but that any such relations would be weak, especially for girls.

## Method

### *Participants and procedure*

Participants were 240 four-year-olds (gender balanced; 82 Chinese-, 49 Dominican-, 51 Mexican-, 58 African-American) and their mothers who were interviewed in their dominant language. By 4 years, children can make distinctions based on gender categories and recognize that two people can have different beliefs about an object (Halim, Ruble, & Amodio, 2011).

### *Measures*

#### *Television*

We averaged mothers' responses to four questions asking how many hours per day television programmes are on that 'are just for kids' and the child spends watching television, on weekdays and weekends (0 = 0 hr, 1 = 1–2 hrs, 2 = 3–4 hrs, 3 = 5–6 hrs, 4 = 7–8 hrs, to 5 = 9 + hrs) ( $\alpha = .81$ ;  $M = 1.89$ ,  $SD = .87$ ).

*Parents' division of housework*

We asked mothers who currently lived with male partners ( $n = 184$ ) six questions. Three pertained to the mother's housework (e.g., 'How much of the laundry (*cleaning, cooking*) do you do?') ( $\alpha = .71$ ) and three pertained to the resident male partner's housework ( $\alpha = .61$ ), using the same 0–5 scale as for television. We subtracted male partners' amount of housework from mothers' ( $M = 2.34$ ,  $SD = 1.17$ ) (Hackel & Ruble, 1992). Parents' division of housework was not associated with television exposure,  $r(184) = .07$ , *ns*.

*Peer and adult public regard*

We showed children a picture of a group of men's and women's silhouettes with no indications of ethnicity. We said, 'Now I want to ask you what other people think. Not what you think, but what other people think'. We then asked children two questions: 'Who do most people think are better? Boys or girls (Men or women)?' ( $r(201) = .24$ ,  $p = .001$ ).<sup>1</sup>

*Private regard*

We averaged children's responses to three questions about their personal feelings and gender (e.g., 'Do you think (own gender: boys/girls) are great or not so great?' [If great...] "How great? A little or a lot?") (0 = *Not great*, 1 = *A little*, to 2 = *A lot*) ( $\alpha = .59$ ) (see Luhtanen & Crocker, 1992).

*Outgroup attitudes*

We asked children two questions: 'Do you think (other gender: girls/boys) are nice (smart)?' (If answered yes...) 'How nice (smart)? A little or a lot?' (0 = *No*, 1 = *A little*, 2 = *A lot*) (see Doyle & Aboud, 1995) ( $\alpha = .58$ ).

## Results

We conducted logistic regressions with gender, ethnicity, the social factor of interest, and covariates (mother's education, family income, cohabitation status, children's general cognitive abilities) predicting each public regard question.<sup>2</sup>

Boys were more likely to believe that others think boys are better, and girls were more likely to believe that others think girls and women are better (peer:  $B = -1.89$  (.31),  $Wald = 36.86$ ,  $p < .001$ ; OR = .15 (95% CI: .08, .28); adult:  $B = -1.26$  (.30),  $Wald = 17.24$ ,  $p < .001$ ; OR = .28 (95% CI: .15, .51)). For peer public regard, both girls and boys differed from 50% chance levels,  $\chi^2(1, N = 116) = 27.03$ ,  $p < .001$ ,  $w = .48$ ,  $\chi^2(1, N = 111) = 16.66$ ,  $p < .001$ ,  $w = .39$  respectively. For adult public regard, girls differed from 50% chance levels,  $\chi^2(1, N = 107) = 32.53$ ,  $p < .001$ ,  $w = .55$ , but boys did not,  $\chi^2(1, N = 107) = .08$ , *ns*.

<sup>1</sup> Thirteen children did not respond to the peer question and 27 did not respond to the adult question. No systematic differences emerged between children who did and did not respond.

<sup>2</sup> Details of the analyses and a table of correlations among variables (Table S1) can be found online as supplemental materials.

### Influences on public regard

None of the covariates predicted public regard, and public regard did not vary by ethnic group.

#### Television

For the peer question, as expected, increased television exposure predicted greater likelihood of children believing that others think boys are better,  $B = .45$  (.20),  $Wald = 4.96$ ,  $p = .026$ ,  $OR = 1.57$  (95% CI: 1.06, 2.34) (Figure 1). A child who watched between 3–4 hrs of television per day was twice as likely to say that others think boys are better compared with a child who watched no television. For the adult question, television did not predict responses.

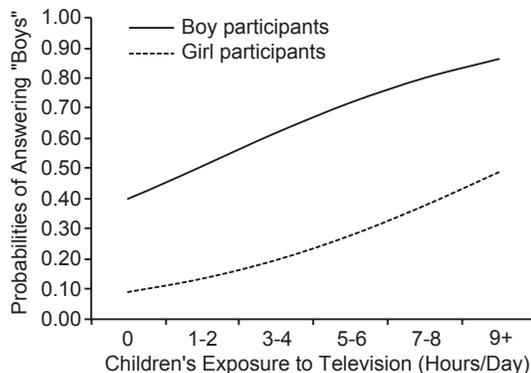
#### Parents' division of housework

Results revealed that more unequal division of housework predicted greater likelihood of believing that others think boys are better among girls,  $B = .68$ ,  $p = .005$ , but not among boys,  $B = .03$ ,  $ns$ , (interaction:  $B = .65$  (.32),  $Wald = 4.07$ ,  $p = .044$ ,  $OR = 1.91$  [95% CI: 1.02, 3.57]) (Figure 2). Girls whose mothers did all of the housework were highly likely to answer 'boys' (89% probability,  $\chi^2(1, N = 120) = 60.84$ ,  $p < .001$ ,  $w = .71$ ). No effects emerged for the adult question.

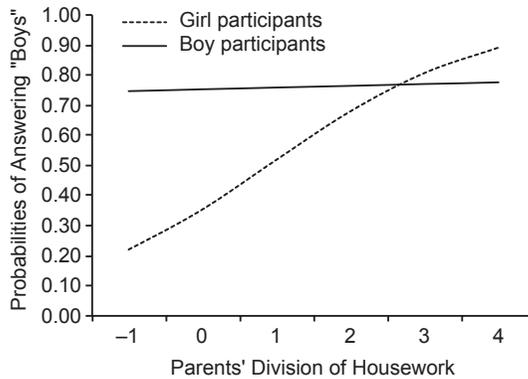
### Public regard and personal attitudes about gender

Private regard was not correlated with peer public regard for either boys ( $r(108) = .13$ ,  $ns$ ) or girls ( $r(113) = .01$ ,  $ns$ ), although it was correlated with one item ('Do you think (own gender) is great?') for boys only ( $r(99) = .23$ ,  $p = .025$ ). Private regard was marginally correlated with adult public regard for boys only ( $r(106) = .18$ ,  $p = .059$ ).

Personal attitudes about the niceness of the other-gender group were not associated with peer ( $r(219) = -.06$ ,  $ns$ ) or adult public regard ( $r(208) = -.01$ ,  $ns$ ). However, the smarter a child considered other-gender peers, the more likely a child said that others think other-gender peers are better ( $r(219) = -.14$ ,  $p = .043$ ) (adult:  $r(219) = -.01$ ,  $ns$ ).



**Figure 1.** Predicted probabilities of answering, 'Boys', to, 'Who do most people think are better? Boys or girls?' by television exposure and child gender.



**Figure 2.** Predicted probabilities of answering, 'Boys', to, 'Who do most people think are better? Boys or girls?' by parental division of household labour and child gender. Higher numbers on the X-axis indicate that mothers do more housework than do male resident partners (including fathers).

When we included private regard or outgroup attitudes as covariates in the regressions conducted above, results remained substantially the same, suggesting that children understood that we were interested in what other people thought and that public regard was a distinct construct from personal gender attitudes.

## Discussion

Four-year-olds' public regard appeared to be largely shielded from societal views on gender hierarchies. Girls thought that people considered girls and women to be better than boys and men. Boys thought that people considered boys to be better than girls. Such ingroup favouritism is consistent with children's strong positivity towards their own-gender peers at age 4 (e.g., Yee & Brown, 1994).

Although children as a group showed little awareness of gender hierarchies, children who were more exposed to information about gender status in the home showed greater awareness. For boys, watching television appeared to reinforce their already positive public regard. For girls, watching television appeared to dampen it. Division of housework was also associated with the likelihood of girls indicating that others viewed boys as better. In homes where mothers performed all of the housework, the public regard of girls shifted from same-gender to other-gender bias.

Why was parents' division of housework associated with only girls' public regard? Girls' closer proximity to parents (Smith Leavell, Tamis-LeMonda, Ruble, Scherer, & Scudellari, 2011) or greater sensitivity to parent gender roles (Fulcher & Coyle, 2011) may be factors. Girls may more keenly observe parents' division of housework because they often perform more housework than boys (Huston, Wright, Marquis, & Green, 1999). Alternatively, girls may actively seek information about the roles of women and their status by observing their mothers because they realize they may one day become mothers themselves.

The social factors we examined were associated with children's peer but not adult public regard. This was surprising, especially for division of housework, which involves adults. The way others regard girls and boys may be more salient because children themselves belong to these groups. Alternatively, children may perceive all adults as

having considerable power and status, which may outweigh perceptions of gender-status differences. Thus, there may be a disconnect between children's source of information (i.e., from adults) and children's application of that information (i.e., to children).

Children's private regard and attitudes towards the other gender were unrelated, or only weakly related, to their public regard. The dissociation among these constructs suggests that gender identity is multidimensional even at this young age. It would be informative to examine whether the concordance between personal and public regard changes developmentally over time for girls versus boys or for different gender subgroups (e.g., tomboys) (Halim *et al.*, 2011).

One limitation of the current study involved the challenge of assessing public regard in children this young, from different language and ethnic backgrounds, who do not understand words such as 'status'. After extensive pre-testing, to facilitate children's understanding across three languages, we asked which gender was 'better', which may not have fully captured some dimensions of public regard such as 'respect'. However, correlations with outgroup attitudes suggested that children's understanding of 'better' had more to do with competence than niceness. Future research should expand upon measuring public regard in different ways and examine the development of this understanding across age. Future research should also investigate what exactly is happening on TV that translates into children's public regard, perhaps using experimental methods to establish causation.

Children's reconciliation of incoming information about gender hierarchies with their personal biases could have significant implications. Low levels of public regard for girls could feed into negative self-evaluations (Ruble, Greulich, Pomerantz, & Gochberg, 1993) or even depression in later years. The awareness of society's higher value placed on males could also affect the occupational and academic pathways girls and boys approach or avoid.

In conclusion, young children actively seek out information about gender as they form their gender identities. Across four ethnic groups we found that, overall, 4-year-olds positively evaluated their own gender and were relatively unaware of information concerning gender and status. However, there was variability. Messages that highlight gender hierarchies were salient to children and appeared to influence their conceptions about gender – and recognition of male privileged standing – early in life.

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### Supporting Information

The following supporting information may be found in the online edition of the article:

**Table S1.** Correlation table of variables.

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