

Running head: *CHILDREN'S JUDGMENTS AND EMOTIONS ABOUT EXCLUSION*

Children's judgments and emotions about social exclusion based on weight

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Abstract

This study examined children's judgments and emotions associated with weight-based social exclusion using an ethnically diverse sample of 117 nine- and thirteen-year-old children.

Children were interviewed about three scenarios depicting weight-based exclusion in athletic, academic, and social contexts. Children's judgments of exclusion, emotions attributed to the excluder and excluded targets, and justifications for judgments and emotions were examined.

Overall, children judged weight-based exclusion to be wrong, for moral reasons. However, they viewed weight-based exclusion in athletic contexts as less wrong compared to academic contexts, and they used more social-conventional reasoning to justify judgments and emotions attributed to excluders in athletic contexts compared to academic and social contexts. Children also expected excluded targets to feel negative emotions, whereas a range of positive and negative emotions was attributed to excluders. In addition, older children were more accepting of weight-based exclusion in athletic contexts than in academic and social contexts. We discuss the results in relation to the development of children's understanding of, and emotions associated with, exclusion based on weight.

Keywords: Weight-based social exclusion; judgments; emotions; moral development

Children's Judgments

Children's Judgments and Emotions in Contexts of Social Exclusion based on Weight

Children know from early on that straight-forward moral transgressions, such as physical harm and unfair resource-sharing are wrong for moral reasons (Killen, Mulvey, & Hitti, 2012; Smetana et al., 2012). However, judgments in multifaceted contexts of social exclusion are more complex than in simple transgressions, and developmental researchers have argued that children consider and balance multiple social and moral concerns, including, but not limited to, group functioning and the repercussions of harming another person, when evaluating instances of social exclusion (e.g., Killen, Lee-Kim, McGlothlin, & Stangor, 2002). Previous developmental research has investigated how children evaluate and reason about social exclusion based on race/ethnicity, gender nationality, and personality (Crystal, Killen, & Ruck, 2008; Theimer, Killen, & Stangor, 2001), as well as the emotions children associate with experiences of social exclusion (Malti, Killen, & Gasser, 2012).

What has not been studied is how children think and feel about the exclusion of overweight peers, and if there are developmental differences in these judgments and emotions. Studying children's perceptions of weight-based exclusion is important because rates of childhood obesity have risen since the 1970's, and overweight children face many psychosocial problems (Eisenberg, Neumark-Sztainer, & Story, 2003). The present study, therefore, examined children's judgments and emotions associated with weight-based social exclusion. We also examined children's evaluations and emotion attributions following exclusion in three contexts because previous research has shown that children coordinate judgments about exclusion with situational context (Gasser, Malti, & Buholzer, 2013). Lastly, we investigated two age groups (i.e., 9- and 13-year-olds), because previous research has revealed developmental differences in judgments and emotions about exclusion from mid-childhood to mid-adolescence (e.g. Killen et

Children's Judgments

al., 2002). Furthermore, children pay greater attention to body size and weight from childhood to adolescence (Thelen, Powell, Lawrence, & Kuhnert, 1992) and negative attitudes and stereotypes about obesity have been shown to increase with age (Puhl & Latner, 2007).

The Development of Judgments and Emotions about Social Exclusion

Here, we combine a developmental intergroup perspective (Killen & Rutland, 2011) and integrative developmental approaches to moral cognitions and moral emotions (Malti & Ongley, 2014) to study children's judgments and emotions about weight-based social exclusion (Killen, Mulvey, & Hitti, 2013). The former conceptual framework has integrated an intergroup perspective and Social Domain Theory (SDT). From an intergroup perspective, social exclusion reflects stereotypes associated with group membership, such as race, gender, or personality (Killen & Rutland, 2011). This perspective emphasizes that social exclusion stems from processes related to group functioning. Developmental research has confirmed that social expectations about groups influence children's peer interactions (Bigler & Liben, 2006).

SDT (Turiel, 1983) posits that social knowledge can be divided into the moral, social-conventional, and psychological domains. A plethora of developmental research has confirmed that children are able to distinguish these domains in their judgments of, and reasoning about, moral and social issues from a very young age (Smetana, 2006). According to the developmental intergroup perspective, children tend to evaluate straightforward transgressions, such as physical harm, as wrong for moral reasons (Killen et al., 2002). However, multifaceted contexts require children to coordinate multiple domains of social knowledge. In these contexts such as social exclusion, different concerns are salient in different situations, and sometimes reasons of group functioning are prioritized over moral concerns. Indeed, developmental scientists have investigated children's evaluations and reasoning about social exclusion based on various factors,

Children's Judgments

including peer group membership (Killen, Rutland, Abrams, Mulvey, & Hitti, 2013), nationality (Malti et al., 2012a), ethnicity (Moller & Tenenbaum, 2011), race (Killen et al., 2010), gender (e.g. Killen & Stangor, 2001), personality (Park & Killen, 2010), disability (Diamond & Tu, 2009), and social status (Feddes, Monteiro, & Justo, 2013). One key finding is that, although children consider social exclusion to be wrong for fairness and empathy reasons, they sometimes consider it to be acceptable for reasons of group functioning and group identity (Killen et al., 2002). In other words, children generally believe straight-forward social exclusion to be wrong for moral reasons; however, complex types of exclusion, such as deciding to exclude one of two children, engender other types of reasoning, such as social-conventional arguments. For example, Theimer et al. (2001) found that children considered it wrong to exclude a child from play on the basis of gender for moral reasons. However, when they had to choose whether to include a boy or girl, children used both moral and social-conventional reasoning.

Lastly, from an integrative developmental approach to the study of moral emotions and moral cognition, it is important to consider both cognition and emotions about morality across the lifespan (Malti & Dys, 2013; see Cooley, Elenbaas, & Killen, 2012). This is interesting because even though children may understand that it is wrong to exclude, they may still attribute feelings of pride to excluders because they maintain the in-group (Malti et al., 2012a). Past research has also shown that young children may attribute positive emotions to transgressors in what is known as the "happy victimizer" effect (Arsenio, 2014; Malti & Krettenauer, 2013). Although this effect generally dissipates in middle childhood, Malti and colleagues (2012b) found that adolescents attributed both positive and negative emotions to excluders following multifaceted contexts of social exclusion. This finding may reflect adolescents' consideration of multiple factors when evaluating social exclusion. Taken together, this literature reveals that the

Children's Judgments

way children anticipate emotions to excluders is complex. Here, we were therefore interested in both judgments and emotions that children anticipate the excluder and excluded target to feel following weight-based exclusion.

We also explored developmental differences in judgments and emotion attributions about exclusion. Social Domain Theory posits that children are able to balance multiple domains of reasoning as they age (Smetana, 2006), and several studies have found developmental effects in that older children consider some forms of social exclusion, such as gender-based and personality-based, to be more acceptable than do younger children (e.g., Park & Killen, 2010). However, older children find other forms of social exclusion to be more wrong than younger children (Moller & Tenenbaum, 2011; Killen et al., 2010). Additionally, older children tend to use more social-conventional reasoning when justifying their evaluations of exclusion compared to younger children (Recchia et al., 2012). Developmental differences in children's emotion attributions have been less consistent: While some studies found an increase in negative emotion attributions to excluders from middle to late childhood (Gasser et al., 2012), other studies did not find developmental differences (Malti et al., 2012a).

Social Exclusion Based on Weight

To our knowledge, weight-based exclusion has not been examined from a developmental, intergroup perspective. However, we believe that it is important to understand how children evaluate and feel about the exclusion of overweight children because of the growing prevalence of obesity in North America and Europe (Ogden, Carroll, Kit, & Flegal, 2012; Roberts, Shields, de Groh, Aziz, & Gilbert, 2012; EASO, 2005). Understanding the development of children's judgments and reasoning about weight-based exclusion may shed light on the development of negative intergroup attitudes (Killen et al., 2013), which, in turn, may be related to negative

Children's Judgments

psychological outcomes for overweight children such as depression and low self-esteem (Eisenberg et al., 2003). Our present study thus systematically extends previous developmental research on social exclusion by investigating a novel social category, (i.e., overweight).

Although no previous work has studied weight-based social exclusion, we expected children's judgments and emotion attributions to follow similar patterns to their judgments and emotions about other highly stigmatized categories, such as disability (Gasser et al, 2013). This expectation was drawn on related previous research that has shown that being overweight is highly stigmatized and that overweight children face many problems with peers, including teasing and exclusion (Strauss & Pollack, 2003; Puhl & Heurer, 2009).

The Present Study

Using a developmental intergroup and integrative moral developmental framework, the current study examined nine- and thirteen-year old children's judgments about, and emotions associated with, weight-based social exclusion in three contexts: athletic, social, and academic. We have chosen to focus on the social category of overweight because it has not been studied from a developmental intergroup framework thus far. At the same time, being overweight is highly stigmatized and overweight children suffer from long-term negative consequences (Puhl & Latner, 2007). We expected that, in general, children's judgments and emotions about weight-based exclusion might be similar to similarly stigmatized social categories, such as disability (Gasser et al., 2013).

Based on the related developmental social exclusion literature, we hypothesized that children would generally judge weight-based exclusion to be wrong for moral reasons (e.g., Moller & Tenenbaum, 2011). However, we expected them to judge weight-based exclusion in athletic contexts to be less wrong compared to social and academic contexts, for group

Children's Judgments

functioning reasons (Killen & Stangor, 2001). This was drawn on related research which has found that children were more accepting of exclusion of a physically-disabled child in athletic contexts and of mentally-challenged children in academic contexts (Gasser et al., 2013). Recent research has also demonstrated that group goals and target characteristics influence children's moral evaluations (Richardson, Hitti, Mulvey, & Killen, 2013). Being overweight is likely to be seen as interfering with group goals in an athletic context, and we therefore expected more use of social-conventional reasoning in the athletic context.

Another set of hypotheses surrounded emotion attributions. We expected that children would generally attribute negative emotions to the excluded child because children understand the negative emotional consequences of social exclusion for the victim (e.g., Cooley et al., 2012). However, we expected children to attribute both positive and negative emotions to the excluder. These expectations are based on previous findings that children attribute a wide range of emotions to the excluder (Malti, Ongley, Dys, & Colasante, 2012b). Similarly, we hypothesized that children will use moral reasoning to justify the emotions attributed to the excluded child but both moral and group-related concerns when justifying emotions attributed to the excluder.

Finally, because developmental research has found that older children differentiate more between contexts of exclusion (Gasser et al., 2013), we expected older children to be more accepting of weight-based exclusion in athletic contexts compared to social and academic contexts. Because previous research has revealed gender differences in judgments and emotion attributions about exclusion (e.g., Malti et al., 2012a), we controlled for gender in all analyses.

Method

Participants

Children's Judgments

The sample included 117 children recruited from a major Canadian city. There were 56 nine-year-olds ($M = 9.41$ years, $SD = .33$; 30 girls), and 61 13-year-olds ($M = 13.32$ years, $SD = .21$; 31 girls). The sample was ethnically diverse and representative of the city from which it was drawn (Statistics Canada, 2007). Specifically, the sample consisted of 56% Western European, 15% Eastern European, 9 % East Asian, 5% Caribbean, and less than 5% each West and Central Asian, Southeast Asian, Hispanic, and multiethnic. Primary caregivers of the children tended to have high levels of education, with 56% having completed a university degree, 20% having completed a college degree, 15% having completed graduate school, 8% having completed high school, and 1% having completed some other form of education. Thus, our sample represented an ethnically diverse, middle to high SES sample (as indicated by educational level) from Canada. An initial screening for obesity showed that none of the children in the sample were obese (see procedure below).

Design and Measures

In line with previous research, the study used a within-subjects design (Killen et al., 2002). Children heard three stories about weight-based exclusion. The order in which the stories were presented was randomized using a Latin Square procedure (Cozby, 2007).

Judgments and Emotions following Exclusion Interview. The interview was a modified version of the Social Exclusion Task: Judgments and Emotions (Malti, Killen, & Gasser, 2009). Children heard three vignettes accompanied by illustrations. The stories were gender-matched to the participant and involved a normal weight child excluding an obese child in favor of another normal weight child. We used one-way exclusion scenarios because of our interest in exclusion of minority group members (i.e., overweight children). The vignettes involved social exclusion in three contexts: athletic (selecting children for running races at

Children's Judgments

recess), academic (selecting group members for a science project), and social (inviting children to a birthday party). The girl version of the athletic context vignette was as follows:

One day at recess, Lily decides to get a group together to run races. There are two teams that will run against each other. Molly and Suzy both like running races very much and want to join the game. There is only room for one more person. Lily does not want Suzy to join the race because Suzy is overweight. Lily lets Molly join.

Judgments about Exclusion. For each vignette, children made judgments about the acceptability of social exclusion (e.g., “Is it okay or not okay for Lily to exclude Suzy? How much is it okay/not okay?”) using a six-point Likert scale, ranging from “very much not okay” to “very much okay”. Higher scores indicated greater acceptance of exclusion. They justified their judgments in response to the question: “Why it was okay/not okay to exclude him/her?”. The children were also asked to evaluate the acceptability of parental and peer pressure to exclude. When assessing the influence of parental acceptance of exclusion on children's evaluations, for example, the experimenter said to the child, “What if Lily's parents said it was okay to exclude Suzy because only children who are not overweight should run races? Is this okay or not okay? Why is it okay/not okay for Lily's parents to say this?” (Killen et al., 2002).

Emotion Attributions about Exclusion. Children attributed emotions to the excluder and excluded children (e.g., “How do you think Lily will feel when she decides not to let Suzy play? How do you think Suzy will feel when she is not allowed to play?”) using a 6-point Likert scale; emotions ranged from “very good” to “very bad”. Higher scores indicated more positive emotion. Again, justifications for all attributed emotions were elicited by asking children, “Why do you think Lily/Suzy will feel this way?”. In addition, children identified the specific emotion of the excluder/excluded child using a list of eight emotions, including proud, happy, sad, angry,

Children's Judgments

anxious, guilty, same as always, and ashamed (Gasser et al., 2013). Children were instructed to select one or two emotions because previous research has shown that children rarely attribute more than two emotions (Malti et al., 2012a).

Coding for Reasoning. Justifications for judgments and emotion attributions were coded using a modified coding system that has been validated in similar research (Killen et al., 2002; Malti et al., 2012a). The coding system consisted of five categories: moral/fairness/inclusion, which referred to fairness, equality, and promotion of inclusion (e.g. "It's not fair to exclude someone because of appearance"; "Everyone should be allowed to play"); moral emotions, which referred to feelings of empathy or guilt (e.g. "It is wrong for him not to invite [the overweight boy] because [the overweight boy] will feel sad"); social conventional, which referred to group functioning, traditions and stereotypes (e.g. "She wants her team to win"; "Overweight children can't run fast"); psychological/personal choice (e.g. It's his party so he can invite whomever he wants"); and undifferentiated (e.g. "I don't know").

Children's responses were coded 0 for non-use of the category or 1 for use of a category. When two categories were used, each was coded as 0.5 to proportionally weigh the use of the category (see Posada & Wainryb, 2008, for a full description of this ordinal coding scale). In line with previous research, only up to two justifications per question were coded. In the rare cases when more than two justifications were given, the first two justifications were coded. Inter-rater reliability was determined using independent coders' ratings of 25% of the interviews. Inter-rater agreement was $\kappa = .88$ (κ s for each of the categories: moral/fairness/inclusion, $\kappa = .86$; moral emotions, $\kappa = .90$; social conventional, $\kappa = .85$; psychological choice, $\kappa = .84$; undifferentiated, $\kappa = .96$). Raters discussed disagreements and the agreed-upon response was coded.

Children's Judgments

Coding for Content of Emotion Attribution. Children attributed up to two emotions to the excluder and excluded children. The emotion “same as always” was not analyzed because we had no specific hypotheses regarding this emotion. Based on preliminary analyses of excluder emotions, pride and happiness were collapsed into one category labeled “happy emotions” and sadness and guilt were collapsed into a category labeled “moral emotions.” Anger and anxiety were rarely attributed (less than 5% of responses), and the excluder emotions in the final analyses were therefore: happy, moral emotions, and shame. Preliminary analyses of excluded targeted emotions revealed that pride, happiness, guilt and anxiety were rarely attributed (less than 5% of responses) and therefore the final emotions analyzed were sadness, anger, and shame.

Procedure

Children and primary caregivers attended one session at the research laboratory. Primary caregivers provided written informed consent and children provided verbal consent prior to participation. Children took part in individual interviews, while primary caregivers completed a demographic questionnaire in a separate room. The interviews were conducted by trained female undergraduate research assistants, and were audio-recorded and transcribed. Testers were trained in visually assessing the child's weight status (i.e., overweight/obese versus non-overweight/obese). They assessed obesity based on the pictorial Children's Body Image Scale (Truby & Paxton, 2002), which visually presents images of children of varying BMI. According to the testers, none of the children in our sample showed any visually observable overweight/obesity.

Results

Judgments of Weight-based Social Exclusion

Children's Judgments

The descriptive statistics for exclusion judgments are displayed in Table 1. To test whether children's judgments were predicted by age, gender, and context, 2 (age) x 2 (gender) x 3 (context) ANOVAs were performed on the three dependent variables (i.e., general judgment, parental influence evaluation, and peer influence evaluation) with a repeated measure on the context variable. Follow-up ANOVAs (with Bonferroni adjustment) were used to test for within- and between-subjects differences. The measure of effect size for all analyses was eta square.

General Judgment. As expected, children's judgments of the acceptability of weight-based exclusion varied by context, $F(2, 112) = 3.39, p = .035, \eta^2 = .03$. Specifically, exclusion in the athletic context was considered more acceptable than exclusion in the academic context, $p = .03$. However, acceptability of weight-based exclusion did not differ between the athletic and social contexts nor between the social and academic contexts. There was also a main effect of gender, $F(1, 113) = 4.65, p = .033, \eta^2 = .04$. Boys considered weight-based exclusion to be more acceptable than did girls. Furthermore, there was a context x age interaction, $F(2, 112) = 4.63, p = .011, \eta^2 = .04$. Pairwise comparisons showed that thirteen-year-olds thought exclusion in the athletic context was more acceptable than exclusion in the academic and social contexts ($ps < .05$).

Parent and Peer Evaluation. Thirteen-year-olds thought it was more wrong for parents to influence social exclusion than did nine-year-olds, $F(1, 113) = 4.86, p = .030, \eta^2 = .04$. In addition, children's evaluations of peer influence to exclude overweight children differed by context, $F(2, 112) = 5.13, p = .007, \eta^2 = .05$. Children considered it more acceptable for peers to promote weight-based exclusion in the athletic than the social context, $p = .03$.

Emotion Attributions

Children's Judgments

The descriptive statistics for the emotions attributed to the excluder and the excluded target are displayed in Table 2. To test whether emotion attributions varied by context, age, and gender, 2 (age) x 2 (gender) x 3 (context) ANOVAs were used with a repeated measure on the context variable.

Children believed that the excluders would generally feel slightly bad; however, there were no effects of age, context, or gender. Children also predominantly attributed negative emotions to the excluded target. There was a context x age interaction, $F(2, 112) = 3.36, p = .037, \eta^2 = .03$, which revealed that, in the athletic context, nine-year-olds thought the excluded target would feel less bad than did thirteen-year-olds, $F(1, 113) = 4.68, p = .03, \eta^2 = .04$.

Content of Emotions. Table 3 displays the mean proportions and standard deviations of excluder emotions and Table 4 shows the mean proportions and standard deviations of excluded target emotions. Attributions of happiness, moral emotions (i.e., sadness, guilt), and shame to excluders did not vary as a function of age, gender, or context. Children attributed sadness, anger, and shame to the excluded target. Nine-year-olds attributed more sadness than thirteen-year-olds, $F(1, 112) = 4.73, p = .032$. In contrast, thirteen-year-olds attributed more shame than did nine-year-olds, $F(1, 112) = 25.23, p < .001$.

Justifications of Judgments and Emotion Attributions

Table 5 displays the mean proportions of reasoning for judgments and emotion attributions to excluder and excluded targets by context. Two (age) x 2 (gender) x 3 (context) repeated measures ANOVAs were used to test whether reasoning varied by age, gender, and context. Because personal choice reasoning occurred only rarely, it was excluded from final multivariate analyses.

Children's Judgments

Justifications of Judgments. There was a context x age interaction in children's use of moral/fairness/inclusion reasoning, $F(2, 112) = 3.35, p = .039, \eta^2 = .03$. Pairwise comparisons revealed that use of moral/fairness/inclusion reasoning varied by context only among thirteen-year-olds, $F(2, 112) = 4.78, p = .01$. Thirteen-year-olds used more moral/fairness/inclusion reasoning in academic and social contexts than in the athletic contexts ($p = .02$ and $p = .03$, respectively).

There was a main effect of context in use of social conventional reasoning, $F(2, 112) = 6.23, p = .003, \eta^2 = .08$. Children used more social conventional reasoning in the athletic context than in the academic context ($p = .002$) and in the social context ($p = .005$).

Justifications of emotion attributions to excluder and excluded target. When justifying emotions attributed to excluders, there was a main effect of context on moral emotion reasoning, $F(2, 112) = 5.88, p = .003, \eta^2 = .05$. Children used more moral emotion reasoning in the social than academic context, $p = .04$. There was also a main effect of context on social conventional reasoning, $F(2, 112) = 9.68, p < .001, \eta^2 = .09$. Children used more social conventional reasoning in the athletic context than in the academic and social contexts ($ps = .04$). No context, age, and gender effects on reasoning about emotions attributed to excluded target occurred.

Discussion

The present study examined nine- and thirteen-year-olds' judgments, reasoning, and emotion attributions about weight-based exclusion in three contexts: athletic, academic, and social. Previous research has shown that overweight children show many psychosocial difficulties as a consequence of experiences of exclusion and rejection, including low self-esteem and depression (Eisenberg et al., 2003). However, few if any research has studied how children

Children's Judgments

think and feel about weight-based social exclusion. The present research, therefore, aimed at investigating these issues within a developmental intergroup framework.

In line with our hypotheses, the findings revealed that children generally considered weight-based social exclusion to be wrong for moral reasons. However, as expected, children distinguished between contexts when making judgments about weight-based exclusion. Specifically, our findings demonstrated that children considered exclusion more acceptable in the athletic (i.e., the “weight-relevant”) context than in the academic context. They also thought it was more acceptable for peers to promote weight-based exclusion in the athletic than the social context. Recent research has demonstrated that characteristics of the excluded target may interact with the goals associated with certain contexts to influence evaluations of exclusion (Richardson et al., 2013). Furthermore, social context has been shown to be an important determinant of whether adolescents are tolerant of outgroups (Verkuyten & Slooter, 2007). This is in line with a developmental intergroup framework (Killen et al., 2013), in which it is likely that children consider both their goals and the peer group's goals in a relevant (i.e., here the athletic) context and how well an overweight child would be able to meet those goals when evaluating social exclusion in this context. This is supported by recent research which indicates that children not only focus on individual differences but also group identity issues and relationships in their acceptance of, and preferences for, peers (Rutland et al, 2012; see also Feddes, Noack, & Rutland, 2009; Feddes et al., 2013).

This finding is also in line with previous related research on disability-based exclusion. This research has documented that children consider excluding physically disabled children from physical activity more acceptable than excluding a physically disabled child from an academic context (Gasser et al., 2013). In our case, overweight may be considered incompatible with group

Children's Judgments

physical activity due to stereotypes that overweight individuals are less physically fit than normal weight individuals (Hill & Silver, 1995). This finding is further supported by our results where social-conventional reasoning was used most often in the athletic context to justify judgments about exclusion, whereas more moral/fairness/inclusion reasoning was evident in the academic and social contexts. Contrary to our hypothesis, there were no overt differences in children's judgments of exclusion in athletic compared to social contexts. This finding suggests that children may consider weight to be relevant in certain social situations, such as a birthday party. In fact, a few of the children in our sample used stereotypes coupled with benevolence in their reasoning about exclusion from the social context. For example, one child articulated that there would be junk food at the birthday party; therefore, it may be good to exclude the overweight child so he won't eat the junk food.

Another set of findings pertained to the emotions attributed to excluder and excluded targets. In line with our hypotheses, our findings revealed that children attributed both positive and negative emotions to the excluder. This supports our hypothesis that weight-based exclusion presents a complex situation in which children consider multiple issues, such as fairness and group- functioning. The justifications further demonstrated that children are sensitive to context when reasoning about emotions to excluders. Specifically, children used more moral emotion reasoning when justifying excluder emotions in the social context and more social-conventional reasoning in the athletic context. These findings support that children are ambivalent about the excluders' emotions and realize that he/she may simultaneously feel mixed positive and negative emotions due to conflicting moral and social-conventional concerns. Thus, while some children appear to be "happy victimizers" when attributing emotions to excluders (Arsenio, 2014), the majority of the children realized that children may feel mixed emotions in these contexts. In

Children's Judgments

contrast, the majority of the children understood that excluded children would generally feel negative emotions. This finding is in line with previous research on social exclusion (e.g., Gasser et al., 2013). Interestingly, along with sadness, children also attributed anger and shame to the excluded target. The attribution of anger is important to consider in the context of intergroup relations (Malti et al., 2012a). Specifically, intergroup prejudice creates tension between groups, and anger (or anticipated anger) in response to exclusion may increase intergroup tension and conflict (Killen et al., 2013). We also found that older children attributed more shame to the excluded target than did younger children. This finding is interesting and may be particularly relevant for exclusion based on weight. It may indicate that children increasingly understand and/or become sensitive to perceived connections between one's physical appearance and how others evaluate the self. Alternatively, they may attribute shame to targets excluded for overweight because of their belief that weight is under personal control and the excluded target may think it's his/her personal failure to be overweight.

We also found developmental differences in children's judgments and reasoning about weight-based exclusion. We hypothesized that older children would differentiate more between contexts when evaluating weight-based exclusion. Our findings confirmed this hypothesis. Specifically, we found that the 13-year-olds found exclusion in the athletic context to be more acceptable than in other contexts, and they used more moral reasoning to justify their judgments about exclusion in academic and social contexts than in athletic contexts. This supports the idea that older children increasingly differentiate between different contexts when making judgments about social exclusion. They may not view exclusion in the athletic context as a moral issue and therefore, in this situation, concerns pertaining to the peer group or traditions may become more important to them. In addition, there were developmental differences in emotion attributions.

Children's Judgments

Specifically, younger children thought the excluded target felt less bad in the athletic context than did older children. Younger children may not fully understand the negative emotional consequences of social exclusion in the “relevant” contexts which is what may cause them to attribute less sad emotions. Interestingly, older children attributed more shame to excluded targets than younger children. They may be more aware of the social consequences of overweight (e.g., rejection or teasing), which is why they may expect the excluded target to feel shame.

Nevertheless, this study was not without limitations. First, the study did not measure children's height and weight in the lab due to ethical concerns; therefore we were unable to say with complete confidence whether all of the children in our sample were, indeed, non-obese. Based on visual assessment of obesity, however, we were confident that the sample consisted of non-obese children. Second, the present study relied on cross-sectional data. Future research may use a longitudinal design to examine how children's obesity stereotypes develop. Third, we tested only one-way exclusion (i.e., normal weight children excluding overweight children). Future research may vary the status of the excluder and excluded targets in order to investigate the role of status on evaluations of exclusion (e.g., overweight children excluding overweight children).

Despite these limitations, the present study contributed to the developmental literature by investigating children's judgments and emotions associated with weight-based exclusion. These findings may contribute to a better understanding of the potential stereotypes that children hold towards overweight children (Harrist et al., 2012). Due to the high rates of childhood obesity and well-known obesity stereotypes, future research on the developmental antecedents and consequences of weight-based social exclusion is warranted.

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Children's Judgments

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Children's Judgments

Table 1

Means (and Standard Deviations) for Judgments of Social Exclusion Based on Weight by Context and Age Group

Judgment	9-year-olds			13-year-olds		
	Athletic	Academic	Social	Athletic	Academic	Social
General	1.39 (0.93)	1.23 (0.66)	1.61 (1.27)	1.57 (1.04)	1.26 (0.70)	1.23 (0.62)
Parent Influence	1.52 (1.24)	1.30 (0.69)	1.50 (1.16)	1.25 (0.79)	1.08 (0.33)	1.16 (0.66)
Peer Influence	1.50 (1.08)	1.29 (0.65)	1.29 (.73)	1.61 (1.20)	1.41 (0.88)	1.31 (0.74)

Note. Range 0-5 (0=very much not okay, 5=very much okay)

Children's Judgments

Table 2

Means (and Standard Deviations) for Positive Emotion Attributions To Excluder and Excluded

Target by Context and Age Group

	9-year-olds			13-year-olds		
	Athletic	Academic	Social	Athletic	Academic	Social
Excluder	2.34 (1.32)	2.07 (1.23)	2.10 (1.27)	2.38 (1.17)	2.31 (1.13)	2.38 (1.24)
Excluded	0.50 (0.74)	0.39 (0.53)	0.48 (0.63)	0.26 (0.44)	0.48 (0.57)	0.36 (0.52)

Note: Range 0-5 (0=very bad, 5=very good)

Children's Judgments

Table 3

Mean Proportions (and Standard Deviations) of Excluder Emotions by Age Group and Context

Emotion	9-year-olds			13-year-olds		
	Athletic	Academic	Social	Athletic	Academic	Social
Happiness	0.26 (0.42)	0.30 (0.44)	0.25 (0.38)	0.31 (0.40)	0.24 (0.40)	0.20 (0.35)
Moral emotions ¹	0.47 (0.37)	0.44 (0.40)	0.49 (0.38)	0.48 (0.38)	0.50 (0.41)	0.51 (0.35)
Shame	0.20 (0.28)	0.20 (0.28)	0.16 (0.26)	0.15 (0.23)	0.18 (0.30)	.018 (0.26)

Note. ¹Moral emotions included sadness and guilt. Only analyzed emotions are displayed.

Children's Judgments

Table 4

Mean Proportions (and Standard Deviations) of Excluded Emotions by Age Group and Context

Emotion	9-year-olds			13-year-olds		
	Athletic	Academic	Social	Athletic	Academic	Social
Sadness	0.60 (0.26)	0.57 (0.28)	0.60 (0.26)	0.49 (0.27)	0.50 (0.27)	0.55 (0.25)
Anger	0.36 (0.26)	0.35 (0.27)	0.32 (0.24)	0.25 (0.27)	0.28 (0.30)	0.25 (0.27)
Shame	0.04 (0.13)	0.06 (0.19)	0.08 (0.21)	0.25 (0.27)	0.22 (0.27)	0.20 (0.26)

Note. Only analyzed emotions are displayed.

Table 5

Mean Proportions (and Standard Deviations) of Moral/Fairness, Moral Emotion, and Social Conventional Justifications of Judgments and Emotion Attributions to Excluder and Excluded Targets by Context

Justification	Context							
	Athletic			Academic			Social-conventional	
	Judgment	EA EX	EA EXC	Judgment	EA EX	EA EXC	Judgment	EA EXC
Moral-fairness	0.75 (0.41)	0.25 (0.41)	0.47 (0.45)	0.85 (0.34)	0.32 (0.43)	0.39 (0.42)	0.79 (0.37)	0.03 (0.15)
Moral emotion	0.08 (0.25)	0.28 (0.38)	0.50 (0.43)	0.07 (0.22)	0.24 (0.36)	0.54 (0.43)	0.09 (0.24)	0.03 (0.15)
Social-conventional	0.12 (0.30)	0.26 (0.40)	0.02 (0.11)	0.03 (0.16)	0.16 (0.36)	0.03 (.136)	0.03 (0.15)	0.03 (0.15)

Note. EA EX = Emotion Attributed to Excluder. EA EXC = Emotion Attributed to Excluded Target.
Only analyzed reasoning is displayed.