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Shame and guilt development in preschoolers: The role of context, audience and individual characteristics
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Shame and guilt development in preschoolers: The role of context, audience and individual characteristics

Daniela Bafunno and Marina Camodeca

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The study examined the early development of shame and guilt, the individual differences related to them and the role of situation and audience. Fifty-eight children aged 3 to 5 years were observed in two paradigms: moral, in which they were led to believe that they had broken an object, and non-moral, in which they failed an easy task. Each session was led twice, with an adult and with a peer. Temperament and conduct were assessed through parental reports. Results showed that older children expressed more guilt than younger children. Shame-proneness was characterized by bodily tension, reticence and gaze avoidance, whereas guilt-proneness by latency to repair and confession. Children were able to distinguish the moral from the non-moral situation and, only in the former, shame was associated with difficult temperament and with emotional problems, whereas guilt was correlated with adaptive characteristics. Finally, children mainly expressed distress with the adult, who holds the authority.

Keywords: Moral emotions; Temperament; Conduct; Guilt; Shame.

The moral emotions of guilt and shame appear when the self is exposed to both one’s own and others’ observations and is valued on the basis of some personal and social models (Bybee, 1998; Ferguson, Stegge, Miller, & Olsen, 1999; Lewis, 1992; Tangney & Fischer, 1995). More specifically, guilt is often elicited when someone damages another person, takes the responsibility for his/her action and wishes to apologize or repair (Barrett, Zahn-Waxler, & Cole, 1993; Bybee, 1998). In contrast, shame involves the feeling that the whole self is a failure or is bad, which leads to withdrawal and avoidance (Bybee, 1998; Mills, 2003). We aimed to test whether shame and guilt present differences in preschool children, detecting those behaviours characterizing each of them. We expected shame to be characterized by bodily tension, reticence, avoidance and negative

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self-evaluations (Mills, 2003) and guilt to be characterized by confession of the damage, and by attempt and immediacy to repair it (Barrett et al., 1993).

Moral emotions development

An early onset of behaviours relevant to moral emotions has been observed already in 17-month-old children (Barrett, 2005). During the second and third years of life, together with the development of self-consciousness and the acquisition of standards, rules, and goals prescribed by the culture, shame and guilt gradually increase (Lewis, Sullivan, Stanger, & Weiss, 1989) and their development continues across the life span, so that children become more and more skilled in dealing with situations in which they are responsible for a caused harm or for a personal failure (Harris, 1989; Lewis, 1992; Walter & LaFreniere, 2007). We aimed to study whether shame and guilt become more functional in the preschool years, when children intensify their relationships with non-familiar adults (e.g., teachers, educators) and peers. Given that guilt reactions mirror higher cognitive abilities to evaluate one’s own behaviour when a rule is broken, to assume responsibility and proceed with a reparative action (Bybee, 1998), thus, to cope effectively with a moral situation, we anticipated that guilt would be more frequent in older, than in younger, children (Stroufe, 1995; Walter & LaFreniere, 2007). On the contrary, the development of self-regulation allows children to control their distress and their shame-related reactions, which, therefore, are expected to decrease with age, till they stabilize (Mills, 2005). Furthermore, in line with the literature, we anticipated that boys would express higher levels of guilt and lower levels of shame than girls (Barrett et al., 1993; Lewis, 1992; Lewis et al., 1989).

Situations associated with guilt and shame

Besides differences in phenomenology and action patterns, guilt and shame have been characterized also on the basis of the context eliciting them and of their contribution to morality. Although both of them have a moral connotation, because they regulate (wrong or inappropriate) behaviour and lead the person to conform to social norms (Bybee, 1998; Lewis, 1971), sometimes this moral aspect has been underestimated in the case of shame. This could be due to the fact that shame is also associated with incompetence, maladaptation and anger (Ferguson, Stegge, Miller, & Olsen, 1999; Tangney, Wagner, Hill-Barlow, Marschall, & Gramzow, 1996).

This double characterization of shame, with or without a moral connotation, has been explained within the contextual approach, which distinguished situations associated with shame from situations associated with guilt, and verified the hypothesis that, whereas guilt is usually associated with morality,
shame can be elicited in both moral (Shame-and-Guilt situations, SAG, e.g., damaging someone else’s belongings) and non-moral situations (Shame-Only situations, SO, e.g., falling asleep in the classroom; Oltbrof, Schouten, Kuipers, Stegge, & Jennekens-Schinkel, 2000; Smith, Webster, Parrott, & Eyre, 2002; Tangney & Fischer, 1995).

Although this contextual hypothesis has been studied with subjects in late childhood or preadolescence (Menesini & Camodeca, 2008; Oltbrof et al., 2000), up to now evidence is missing that it may also apply to preschoolers. It was our aim to investigate whether young children distinguish moral and non-moral situations and react accordingly. We hypothesized that SO situations would elicit more shame, due to a global self-devaluation, in comparison with SAG situations in which children try to repair a bad action.

Individual differences related to shame and guilt

The literature suggests behavioural differences associated with shame and guilt proneness, which may have implications for social adjustment and psychopathology (Ferguson et al., 1999). For instance, in moral contexts, low levels of guilt predict externalizing problems and bullying (Ferguson et al., 1999; Rieffe, Camodeca, Pouw, Lange, & Stockmann, 2012), whereas shame is associated with high levels of internalizing and externalizing symptoms (Ferguson et al., 1999). Moreover, shame is correlated with low levels of social competence and empathy (Walter & LaFreniere, 2007). Therefore, we anticipated that, in the moral situation, guilt, but not shame, would be associated with psychosocial adjustment. We did not advance any hypothesis about shame in the non-moral situation, because findings claiming that shame after a failure is related to sadness, to behavioural problems and to social difficulties (Bybee, 1998; Mills, 2003; Tangney et al., 1996) are not consistent with others suggesting that shame is neither associated with temperamental negative emotionality (Belsky, Domitrovich, & Crnic, 1997), nor with bullying or victimization (Rieffe et al., 2012).

The role of the audience in eliciting shame and guilt

Public exposure has an important function in the arousal of moral emotions, which are affected by the presence (real or imagined) and the characteristics of a judging or observing audience (Smith et al., 2002). For instance, a more powerful or important observer may be considered also more punitive and may lead to more shame and guilt than a public perceived as less significant or respected (Ferguson et al., 1999).

Children have usually been observed in relation to adults, but they spend a lot of time with peers, wish to be accepted in the group and negotiate rules (e.g., about games or turns; Schafffer, 2004). To our knowledge, studies are missing on the role of peers as an audience when experiencing shame and guilt. Public
exposure to an adult, rather than to a peer, would be expected to elicit more guilt and shame, because the adult represents the authority holding the rules and able to punish (Kochanska, Gross, Lin, & Nichols, 2002).

The present study

In sum, this study had five aims: (1) to examine whether shame and guilt present different action tendencies and phenomenology in preschool children; (2) to shed light on the development of shame and guilt and on gender differences; (3) to investigate whether preschoolers are able to distinguish between a SAG situation that focuses on a specific action (moral context) and a SO situation that focuses on self (non-moral context); (4) to study individual differences associated with shame and guilt, in terms of temperamental, behavioural and emotional characteristics; and (5) to explore children’s reactions when an adult and a peer compose the audience.

METHOD

Sample and procedure

Participants were 58 Italian children (29 boys; $M_{\text{age}} = 56$ months; $SD = 9.81$), recruited from three preschools covering middle socioeconomic and cultural urban areas in central Italy. Children were divided into three age groups: 3-year-olds (8 boys, 8 girls, $M_{\text{age}} = 44$ months; $SD = 3.8$), 4-year-olds (12 boys, 11 girls, $M_{\text{age}} = 56$ months; $SD = 3.5$), and 5-year-olds (9 boys, 10 girls, $M_{\text{age}} = 69$ months; $SD = 3.4$). All of them participated in SAG and SO situations with an adult, and 42 of them (21 couples) were also involved in the peer condition. In the analyses, scores in the peer condition were only used to compare the two contexts.

Parents signed an informed consent form to allow their children to participate and to be videotaped. In addition, children were informed that they could withdraw from the study at any time and for any reason.

Experimental sessions, conducted by a female experimenter in a counter-balanced order, took place on three different days in the classroom or in another room in the school.

In order to control for cognitive development, children’s intelligence was preliminary tested with the Wechsler Intelligence Scale for Children – Revised (Wechsler, 1990), which verified also verbal and performance abilities. Four children out of 62 were excluded from the initial sample because of their low scores (scores $< 8$; total range: 1 to 19).

The present study conformed to the ethical code of the Italian Association of Psychology and to our University Code of Research Ethics, whose committee evaluated and approved the procedure.
Measures

Shame and guilt in moral context (SAG situation): The mishap paradigm
Procedure with an adult. We employed a modified version of the mishap paradigm of Cole, Barrett, and Zahn-Waxler (1992), according to which children are led to believe they have broken a toy previously manipulated by the experimenter. In this study children remained with the experimenter, without parents, in order to investigate how they managed to cope by themselves with a situation of discomfort.

Children were observed individually in one experimental session, lasting approximately 10 min and beginning with a few minutes of play useful to the experimenter to familiarize with them. When the children felt at ease, the experimenter introduced the manipulated toy (a robot for boys and a magic wand for girls), recommending them to take good care of it since it was her favourite toy. The manipulation involved the arm of the robot, or the wings of the wand, which fell off after a while the children played with it. When the mishap happened, the experimenter did not say anything for a maximum of two minutes. This time was often reduced because children stood up and wished to leave the room, or because they asked for help. It could also have been reduced if the child began to cry or showed excessive discomfort, which, however, never occurred. Finally, for ethical purposes, the experimenter reassured the child that the damage had not been his/her fault and assumed responsibility for it, cheerfully saying that the toy was already broken and could be easily fixed. In this way, all children were comforted in very few minutes and went on playing.

Procedure with a peer. Children from the same school, but different classroom, were randomly chosen to interact in pairs. They were asked to build a small house of paper to show to parents and to put it in a personal box. The experimenter secretly replaced their works with two similar ones. Then, she asked one of the children to take the box with the peer’s small house. The box had been modified so that the child’s movement would damage the toy inside. The experimenter appeared distracted and did not take part in the following peer interactions. All the behaviours acted by the damaging child were codified. Finally, the experimenter reassured the children, saying that it was not the peer’s house that had been damaged and that there was nothing to worry about. Children were easily reassured.

Coding. Coding of children’s responses in both procedures started when the object broke and finished when the experimenter stopped the situation. The duration of this interval ranged from 25 to 120 s with the adult \((M = 65; SD = 16.34)\) and from 7 to 48 s with the peer \((M = 25.4; SD = 10.95)\), who often interrupted the situation.
A coding system including specific and appropriate characteristics of shame and guilt was developed from previous works (Kochanska et al., 2002; Mills, 2003). The duration in seconds of actions and expressions was coded and was then divided by the duration of the coding interval. As displayed in the appendix, features were grouped into four categories and averaged within each of them: gaze and face, bodily tension, reticence, and repair.

In addition, we coded the presence or absence of the verbalizations about confession and negative self-evaluation, which are considered indicators of guilt and shame, respectively (Barrett et al., 1993; Mills, 2003). Finally, we coded the latency to repair and to look at the experimenter, as the time, in seconds, children took before doing these actions (Barrett et al., 1993).

Baseline expressions, behaviours and verbalizations, coded in the last minute of the warm-up period, were subtracted from the corresponding scores during the mishap paradigm, in order to control for usual or typical children’s behaviours. Behaviours were coded with the software INTERACT 8.

Reliability. Two observers coded the reactions of 23 children (39.7%) in the situation with an adult and of four children (19%) in the situation with a peer. Kappas ranged from .70 to .80, except for gaze and face (.61) and bodily tension (.61) in the adult condition (all $p < 0.05$). Inconsistencies were solved with a discussion.

Shame in non-moral context (SO situation)

Procedure with an adult. Observations were conducted to detect children’s reactions to a personal failure on an easy task, which usually leads to negative self-evaluative reactions, including shame (Lewis, 1992; Mills, 2003; Tangney & Fischler, 1995). The task used in this work involved building a wooden train, composed of five pieces, in 60 s. The experimenter tried and completed it in time. But when it was the child’s turn and he/she only had two pieces left, the experimenter announced that time was up. Afterwards, in order to alleviate distress, the experimenter said that she had made a mistake in setting a too short time and children were given a second attempt in which they succeeded. All children were easily reassured.

Procedure with a peer. This situation respected the same characteristics of the version with the adult. After the child observed the peer succeeding in a jigsaw puzzle, he/she failed in the same task because the experimenter announced that time was up before he/she had finished. Children were reassured as in the previous session.

Coding. Coding of children’s responses in both procedures started when the experimenter announced that the time was finished, and stopped after an average duration of 15 s ($SD = 5.35$; min/max = 8/32 s).
The same behavioural indexes and expressions coded in the moral context (see appendix) were employed, except for repair and confession, which do not apply to a failure situation. Also in this case, we coded the duration of behaviours (divided by the duration of the trial), the presence or absence of the verbalizations, and the latency to look at the experimenter. The duration of baseline behaviours and expressions and the presence of baseline verbalizations were subtracted from those observed in the coding period.

Reliability. Two observers coded the reactions of 15 children (25.9%) in the situation with the adult and of five children (15.4%) in the situation with the peer. Kappas ranged from .70 to .76, with the exception of bodily tension (.50) and reticence (.67) in the adult condition, and negative self-evaluation (.63) in the peer condition (all ps < 0.05). Inconsistencies were solved with a discussion.

Individual differences: Temperament and conduct

The Behavioural Style Questionnaire (BSQ) for 3- to 7-year-old children was used to assess temperament (McDevitt & Carey, 1978; adapted by Attili, 1993). Parents rate how often their children behave in the way described in 67 items, using a score ranging from 1 (Almost never) to 6 (Almost always). To identify the clinically most significant configuration of temperamental traits, the authors introduced the typology of “difficult”, as opposed to “easy”, temperament, resulting from a specific combination of factors. We only considered the five, out of nine, dimensions contributing to the difficult temperament: (1) rhythmicity, i.e., regularity in eating and sleeping; (2) approach/withdrawal to new stimuli; (3) adaptability to new contexts or conditions; (4) intensity of the emotional responses; and (5) mood, i.e., the extent of positive or negative emotions. High scores indicate difficulties.

Parents also filled in the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997; adapted by Marzocchi et al., 2004). Two comparable versions were used for 3-year-old and for 4- to 5-year-old children. The SDQ consists of 25 items, with response on a 3-point scale (0 = True, 1 = Partially true, 2 = False), which yield five scales: Prosocial behaviour; Hyperactivity/Disattention, Emotional symptoms, Behavioural problems, and Difficulties with peers. The sum of the scores in the last four scales also provides a score for General difficulties.

RESULTS

Descriptive statistics and correlations among categories (except for verbalizations) are displayed in Table 1.
<table>
<thead>
<tr>
<th>SO\SAG</th>
<th>Gaze and face</th>
<th>Bodily tension</th>
<th>Reticence</th>
<th>Repair</th>
<th>Latency to repair</th>
<th>Latency to look at experimenter</th>
<th>M (SD) in SAG</th>
<th>M (SD) in SO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gaze and face</td>
<td>−</td>
<td>.27*</td>
<td>.29**</td>
<td>−.37**</td>
<td>.25</td>
<td>−.02</td>
<td>.18 (0.20)</td>
<td>.17 (0.20)</td>
</tr>
<tr>
<td>Bodily tension</td>
<td>.24*</td>
<td>−</td>
<td>.28*</td>
<td>−.25**</td>
<td>−.17</td>
<td>−.02</td>
<td>.10 (0.17)</td>
<td>.18 (0.25)</td>
</tr>
<tr>
<td>Reticence</td>
<td>.14</td>
<td>−.11</td>
<td>−</td>
<td>−.42**</td>
<td>−.23</td>
<td>−.20</td>
<td>.06 (0.16)</td>
<td>.14 (0.21)</td>
</tr>
<tr>
<td>Repair</td>
<td></td>
<td></td>
<td></td>
<td>−.29*</td>
<td></td>
<td>.20</td>
<td>.30 (0.31)</td>
<td></td>
</tr>
<tr>
<td>Latency to repair</td>
<td></td>
<td></td>
<td></td>
<td>−</td>
<td>−.12</td>
<td>13.17 (18.60)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latency to look at experimenter</td>
<td>.14</td>
<td>.05</td>
<td>−.06</td>
<td></td>
<td></td>
<td>3.81 (7.73)</td>
<td>2.76 (2.50)</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Correlations above the diagonal refer to the SAG situations and those below the diagonal refer to the SO situation. N = 58. *p < 0.05; **p < 0.01 (Spearman rho, 1-tailed).
Guilt- and shame-proneness

Children were classified into mutually exclusive groups based on a measure of reparation, which indicates that the focus of attention is on the object and thus differentiates guilt from shame (Barrett et al., 1993; Bybee, 1998). Besides, as indicated in Table 1, high scores in repairing correlated with low scores in shame indicators.

Guilt-prone children were defined as those who scored above the median on the duration of repair (median = 0.22 s), and shame-prone children as those who scored below this median (Walter & LaFreniere, 2007) and who showed at least one indicator of shame among gaze and face, bodily tension, reticence and negative self-evaluation. Results are displayed in Table 2.

Children in the shame-prone group had higher values of gaze and face, \( t(56) = 3.11; p < .01 \), bodily tension, \( t(56) = 2.05; p < .01 \), and reticence, \( t(56) = 2.63; p < .01 \), than guilt-prone children, who were quicker at starting to repair the toy, \( t(39) = 1.76; p < .05 \), and at looking at the experimenter, \( t(55) = 1.08; p < .05 \). More guilt-prone, than shame-prone, children confessed the mishap (Mann–Whitney \( U = 319; p < .05 \); see Figure 1).

Age and gender differences

Responses varied as a function of age, \( \chi^2(2) = 6.08; p < .05 \), with 3-year-olds more likely to be classified as shame-prone and 4- and 5-year-olds more likely to be classified as guilt-prone. Furthermore, in the SAG situation, older preschoolers expressed more guilt relevant reactions, such as repair, \( t(37) = 2.01; p = 0.05 \), and confession (\( U = 105; p < .05 \)), whereas no age differences were found for shame indicators.

<table>
<thead>
<tr>
<th>Age</th>
<th>Shame-prone</th>
<th>Guilt-prone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boys</td>
<td>Girls</td>
</tr>
<tr>
<td>3 years</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>4 years</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>5 years</td>
<td>2</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 2
Number of children classified as shame-prone and guilt-prone as a function of age and gender
Regarding gender, 20 of the 29 shame-prone children were female, and 20 of the 29 guilt-prone children were male (Kolmogorov–Smirnov $Z = 1.45; \ p < .05$). In the SAG situation, girls expressed more shame-relevant behaviours such as gaze and face, $t(56) = 1.67; \ p < .05$, and reticence, $t(56) = 2.06; \ p < .05$, than boys, who repaired more than girls, $t(56) = 4.12; \ p < .05$. 
Differences between SAG and SO situations

In the SO, rather than in the SAG, situation, children scored higher in reticence, \( t(57) = -2.23; \ p < .05 \), and expressed more negative self-evaluations (McNemar test), \( \chi^2(1) = 4.00; \ p < .05 \), suggesting that they distinguish the two situations and show more signals of shame after a failure than after a mishap (descriptive statistics are displayed in Table 1).

Individual differences

Correlations were conducted between children’s reactions after a mishap and the BSQ temperamental dimensions. In the SAG situation, children with great difficulties of adaptation had high scores in reticence (\( \rho = 0.37; \ p < .01 \)), whereas highly reactive children showed gaze aversion and lip rolled-in (\( \rho = 0.24; \ p < .05 \)) and bodily tension (\( \rho = 0.29; \ p < .05 \)). The children who confessed the mishap were described as less rhythmic (\( \rho = 0.32; \ p < .05 \)). Analysing the SO situation, children showing bodily tension and expressing negative self-evaluations had low scores in intensity (\( \rho = -0.39; \ p < .01 \) and \( \rho = -0.39; \ p < .01 \)).

Correlations between the SDQ scales and reactions in the SAG situation showed that shame indicators such as reticence and bodily tension were associated with emotional symptoms (\( \rho = 0.26; \ p < .05 \)) and general difficulties (\( \rho = 0.29; \ p < .05 \)), respectively, whereas repair and confession, signs of guilt, were negatively associated with emotional symptoms (\( \rho = -0.30; \ p < .05 \)) and behavioural problems (\( \rho = -0.28; \ p < .05 \)), respectively. These findings suggest that guilt, but not shame, is functional to social adjustment. In the SO situation, however, bodily tension (\( \rho = -0.27; \ p < .05 \)) and negative self-evaluations (\( \rho = -0.28; \ p < .05 \)) were negatively correlated to behavioural problems; bodily tension also correlated with difficulties with peers (\( \rho = 0.33; \ p < .05 \)).

The role of audience

We analysed children’s reactions when an adult and a peer composed the audience. Wilcoxon paired-tests were used. Results showed that repair (\( z = 2.60; \ p < .01 \), SAG situation) and reticence (\( z = 2.13; \ p < .01 \), SO situation) scored higher in the adult, than in the peer, condition.

DISCUSSION

The present study contributes to shedding light on the early development of shame and guilt. In particular, findings point to a distinction among shame and guilt indicators and correlates, as well as among the contexts of mishap and failure. Furthermore, to our knowledge, this was the first study to also employ peers as interaction partners during the experimental situations.
As to the first aim, results confirmed that some children, after the damage, are more prone to guilt and some children more prone to shame. These differences may be due to temperamental traits or to family influence (Loader, 1998; Tangney & Fischer, 1995), but they can also be interpreted according to a cognitive perspective that considers personal attributional style (Lewis, 1992). Proneness to shame is influenced by high standards for oneself and by a global attribution focusing the attention on the self. Thus, shame-prone people, in order to hide themselves and avoid the comparison with the others, may use gaze diversion, bodily tension and reticence, as we found in our sample. On the contrary, guilt-proneness is influenced by specific attributions and by a focus on one’s own actions and on relations with others, which lead to apologizing and making amends for the wrong done. Our findings confirm these reactions in guilt-prone children, who often confessed and were quicker at looking at the experimenter and at trying to repair.

With regard to age, older children were mostly classified as guilt-prone and presented more indicators of guilt than younger children (Sroufe, 1995). It seems that, as children get older, they develop a sense of responsibility and a better comprehension of the rules and of others’ mental states (Harris, 1989). Shame-prone children were mainly the youngest, maybe because they have not yet developed the necessary self-regulation skills, which, later on, would enable them to control their emotional and physical distress (Mills, 2005). However, we did not find age differences in shame categories, indicating that shame probably does not undergo the same developmental process as guilt and remains more or less stable during the preschool period.

Outcomes highlighted that avoidance is typical of girls, whereas repair is typical of boys, confirming similar results in the literature (Barrett et al., 1993). Such differences, also proved by the frequency of boys and girls in the guilt- and shame-prone groups, respectively, might be due to different socialization models employed for boys and girls (Lewis et al., 1992).

With regard to the differences between the two contexts, investigated for the first time in preschoolers with an observational method, it seems that failure (SO, non-moral situation), compared to mishap (SAG, moral situation), is associated with more shame, suggesting that children react also on the basis of the specific situation and recognize the characterization of moral and non-moral contexts (Olthof et al., 2000). Probably, in a moral context, concern for the harm done and the desire to repair are stronger than the desire to go away from the situation and to reduce the arousal.

Children showing high levels of guilt indicators (confession and repair) did not present emotional symptoms and behavioural problems, but scored high in irregularity. Further studies could investigate the influence of rhythmicity on the development of moral emotions. On the contrary, shame in the SAG situation was associated with difficulties in accepting changes and with intense energy of emotional responses. According to Thomas and Chess (1977) these traits
contribute to identifying the difficult temperament profile, which is associated with the risk of behavioural problems. In fact, children displaying shame tendencies also scored high in emotional symptoms (which mainly point to internalizing problems and psychosomatic complaints) and general difficulties. However, in the SO situation shame is associated with less energy and fewer behavioural problems, except for problems with peers (e.g., loneliness), which could be due to ashamed children’s tendency to be avoidant (Mills, 2005).

In sum, it seems that shame after a mishap is less adaptive than guilt (Bybee, 1998) and it would suggest an inability to regulate arousal. It is likely that children responding with shame have less effective emotional regulation strategies and tend to internalize, maybe due to their focus on inner self in place of a more adaptive focus on the situation. On the contrary, in a failure context, shame is associated with positive conduct, suggesting also its adaptive role and underlining the importance of considering different situations.

Findings about the audience enlarge the knowledge on moral emotions in preschoolers and show that shame and guilt were mainly displayed when children were with the adult, maybe because adults hold the authority and children are used to parents’ or teachers’ tendency to correct their behaviour towards the respect of the norms (Harris, 1989; Schaffer, 2004). The higher level of apprehension with the adult in the failure context may also be due to the fact that parents consider shaming as an important way to promote children’s social and moral development in different cultures (Fung, 1999, Kochanska & Aksan, 2006).

Among the study’s limitations, we are aware that a few reliabilities were low, but the significant outcomes indicate that they can be considered adequate. We acknowledge that a bigger sample would have enhanced the findings and would have allowed, for instance, controlling for dyads’ age and gender composition. However, the complex research design, including the experimental paradigm, observations and parents’ reports, hindered the employment of many subjects. The cross-sectional design is another weak point; a longitudinal design would allow the investigation of the developmental trends of shame and guilt and the possible causal links between moral emotions and individual characteristics.

The proposed paradigms, although mirroring real life, may have influenced children’s shame and guilt reactions, which could be affected by the specific content of mishap and failure. For this reason, it would be interesting, in future research, to take into account also other emotionally stressful situations, such as, for instance, a situation in which children are the perpetrator or the victim of an aggressive act (cf. Menesini & Camodeca, 2008).

Finally, given that participants only included Italian children, we recommend carefully generalizing the findings to other populations, because it seems that culture plays an important role in the development of moral emotions (Bybee, 1998).
REFERENCES


## Appendix

Expressive features coded for the scoring of behaviours indicating shame and guilt.

<table>
<thead>
<tr>
<th>Category</th>
<th>Features</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gaze and face&lt;sup&gt;1,2&lt;/sup&gt;</td>
<td>Gaze aversion&lt;sup&gt;4&lt;/sup&gt;</td>
<td>The child stares into space, or towards the oblique low, or towards another insignificant object (excluding the broken toy and the experimenter)</td>
</tr>
<tr>
<td></td>
<td>Lip rolled-in&lt;sup&gt;6&lt;/sup&gt;</td>
<td>Lower lip rolled-in; corners of mouth drawn</td>
</tr>
<tr>
<td></td>
<td>Bodily avoidance&lt;sup&gt;4&lt;/sup&gt;</td>
<td>The child backs up while looking at the experimenter; or moves away from her, towards insignificant object, after focusing on her</td>
</tr>
<tr>
<td></td>
<td>Hunched shoulders&lt;sup&gt;4&lt;/sup&gt;</td>
<td>Relaxed or hunched shoulders</td>
</tr>
<tr>
<td></td>
<td>Head lowered&lt;sup&gt;4&lt;/sup&gt;</td>
<td>Head hanging or tilted forward</td>
</tr>
<tr>
<td></td>
<td>Arms across body&lt;sup&gt;4&lt;/sup&gt;</td>
<td>Arms across the midline, held close to the body (e.g., hugging the body)</td>
</tr>
<tr>
<td></td>
<td>Covering, touching face&lt;sup&gt;4&lt;/sup&gt;</td>
<td>The child covers or touches all or part of the face</td>
</tr>
<tr>
<td>Reticence&lt;sup&gt;3&lt;/sup&gt;</td>
<td>Fingers in mouth&lt;sup&gt;5&lt;/sup&gt;</td>
<td>Putting a finger or fingers in mouth</td>
</tr>
<tr>
<td></td>
<td>Moving the object away from the self&lt;sup&gt;4&lt;/sup&gt;</td>
<td>The child moves the object away from him/herself</td>
</tr>
<tr>
<td></td>
<td>Motionless&lt;sup&gt;4&lt;/sup&gt;</td>
<td>The child interrupts every activity and remains motionless (in the meantime he/she can move his/her eyes or put hands on the face)</td>
</tr>
<tr>
<td>Repair&lt;sup&gt;3&lt;/sup&gt;</td>
<td>Trying to repair the object&lt;sup&gt;5&lt;/sup&gt;</td>
<td>The child tries to repair, to fix the toy. It is not coded as repair if the action is not meant to repair</td>
</tr>
<tr>
<td>Confession&lt;sup&gt;3&lt;/sup&gt;</td>
<td>Making a confession or self-blame&lt;sup&gt;5&lt;/sup&gt;</td>
<td>The child admits to having broken the toy, e.g., saying “I broke it” or “I pulled this piece off”</td>
</tr>
<tr>
<td>Negative self-evaluation&lt;sup&gt;2,3&lt;/sup&gt;</td>
<td>Verbalizing a self-devaluation&lt;sup&gt;4&lt;/sup&gt;</td>
<td>The child judges him/herself negatively, e.g., saying “I am not able to play” or “I can’t do it”</td>
</tr>
</tbody>
</table>

**Notes:**

1 Barrett et al. (1993) and Barrett (2005).
4 Indicator of shame.
5 Indicator of guilt.