Aggressive and prosocial children's evaluation and justification of transgressions and their relationship to the teacher–child relationship in Tanzania

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\textbf{A B S T R A C T}

This cross-sectional study examines the evaluation and justification of transgressions in the moral and non-moral domain by children nominated by their peers as prosocial or as aggressive, and their relationship to the teacher–child relationship. Eighty children from ten pre-primary schools, 40 nominated as prosocial and 40 as aggressive, aged 5–7 years ($M=6.0$ and $SD=.64$), responded to hypothetical transgression stories in the moral and non-moral domain. Children from both groups evaluated moral transgressions as more wrong than non-moral transgressions. However, children nominated as prosocial more frequently evaluated the moral transgressions as wrong compared to children nominated as aggressive. Furthermore, children nominated as prosocial more frequently justified moral transgressions on the basis of intrinsic factors, whereas both groups more frequently justified non-moral transgressions on the basis of non-moral factors. Teacher–child relationship was more strongly related to children's peer nominated social behavior than children's evaluation of transgressions in the moral and non-moral domain.

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1. Introduction

Recently, I had a telephone conversation with my 9-year old daughter. The conversation was as follows: (Me) How was your day at school? (Daughter) My day at school was bad. (Me) Why? (Daughter) The teacher whipped me (using a small/thin stick), because I did not put on a neck-tie. (Me) You should always put on a neck-tie because it is part of your school uniform; by not putting on a neck-tie you violated the school rule. (Daughter) Mom!!!! I thought you could have sided with me against my teacher's whip because it was not fair to whip me simply for not putting on a neck-tie. It was only one day -- today -- on which I did not put on a neck-tie. For sure, it was unfair for the teacher to punish me. She should have given me a warning because it was a first time mistake. (Me) I will discuss this matter with your teacher.

According to the child quoted above, whipping (using a stick) was unfair in this case. Whipping inflicts physical harm. The Tanzanian Law of the Child Act No. 21 (2009) prohibits whipping, which makes teacher’s punishment a legal transgression. An action which deliberately inflicts harm on others is a moral transgression (Nucci, 1981; Nucci & Turiel, 1978; Smetana, 1981, 1999; Turiel, 1978, 1983, 2008). Thus if a teacher whips a child, this can be regarded as a moral transgression. The child was aware that not putting on a neck-tie is a violation of a school rule. However, in her view, the violation of this particular school rule merited a warning (in this case, because it was the first time). Not putting on a neck-tie can be seen as a conventional transgression. The conversation above exemplifies the perception of moral and non-moral transgressions among children in school. In this example, a conventional (non-moral) transgression by the child was responded to with a conventional transgression by the teacher which was recognized as such by the child. This was an important starting point for an exploration of how young children in Tanzania evaluate and justify transgressions in the moral and non-moral domain. Evaluation means judging or considering actions as right or wrong. Justification refers to the explanation as to why the action is considered to be right or wrong. Tanzania is dominantly a collectivist society (McGillicuddy-DeLisi

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that strongly emphasizes obedience in children and this could affect children’s evaluations and justifications of transgressions in the moral and non-moral domain.

Research has established an association between teacher–child relationship and children’s behavioral adjustment (Baker, 2006; Hamre & Pianta, 2001; Myers & Pianta, 2008). However, our example also suggests that children’s interpretation of transgressions is related to children’s relationship with their teacher. This implies that children’s relationship with their teacher is at least partly a reflection of how they interpret their teacher’s behavior. A relationship between moral and non-moral interpretation of transgressive behavior and prosocial and antisocial behavior has been established in children and adolescents (Arsenio & Lemerise, 2004;ucci & Herman, 1982; Smetana, 1985). However, research on the relationships between children’s moral and non-moral interpretation of transgressions, the teacher–child relationship, and children’s social behavior is lacking. This study aims to investigate these relationships in a sample of pre-primary school children in Tanzania.

2. Evaluation and justification of transgressions in the moral and non-moral domain

Research has shown that children as young as three years of age can evaluate and justify prototypical moral, conventional, and personal actions (ucci & Turiel, 1978; Smetana, 1981, 1985, 1999; Turiel, 2002; Yau & Smetana, 2003). For example,ucci & Turiel (1978) pointed out that young children aged 2.10–5.2 years evaluated moral transgressions as wrong and their justifications were based on factors intrinsic to actions such as harming others physically or psychologically. Children’s evaluation and justification of conventional acts were based on whether societal rules were violated or not; in other words, whether a conventional act is wrong or not, is evaluated based on the beliefs of a particular society (Gasser & Keller, 2009; Malti, Gasser, & Buchman, 2009;ucci & Turiel, 1978; Smetana, 1981, 1985; Smetana et al., 1999; Turiel, 2008). After the age of four or five years, children’s evaluation of moral and non-moral transgressions becomes much more systematic (Yau & Smetana, 2003). Between the ages of six and ten, children start using rules to evaluate more systematically moral and non-moral actions (e.g., transgressions) (Loke, Heyman, Forgie, McCarthy, & Lee, 2011). This implies that as children grow older, they learn to generalize and to reason why the action is right or wrong. Children have been reported to evaluate personal choices (for instance, choosing a friend) as individual matters rather than actions guided by moral or conventional rules (Killen & Smetana, 1999;ucci, 1981;ucci & Herman, 1982; Yau & Smetana, 2003). In the present study, conventional and personal transgressions are regarded as non-moral transgressions.

All the studies mentioned above were carried out in a Western European–American middle class context. No study has been conducted of children’s evaluation and justification of moral and non-moral transgressions in the Tanzanian urban middle class context, a society whose cultural norms differ from those in Western European–American middle class context. Tanzania is predominantly a collectivistic, conformist society, which practices an eclectic (authoritarian and authoritative) child rearing approach (Shavega, van Tuijl, & Brugman, 2014). Being a dominantly collectivistic society, it expects children to be obedient and pay respect to authority figures such as parents and teachers, and puts emphasis on cooperation and interpersonal relationships (McGillicuddy-DeLisi & Subramanian, 1994; Song, Smetana, & Kim, 1987; Yau & Smetana, 2003). Because in the Tanzanian culture, obedience in children is strongly encouraged, children not only may justify conventional but also moral transgressions on the basis of adult (dis) approval instead of intrinsic factors (that is whether actions harm others physically and/or psychologically). In sum, this cultural orientation, stressing the importance of obedience, may affect children’s ability to evaluate and justify moral transgressions into the direction of conventional transgressions.

We extended the research on moral and non-moral domain evaluation and justification by relating it to children’s social behavior in pre-primary schools. In the current study, one of our goals is to examine the relationship between children’s evaluation and justification in the moral and non-moral domain and children’s social behaviors in pre-primary schools as nominated by peers.

3. The relationship between children’s evaluation and justification of transgressions in the moral and non-moral domain and their social behavior

In the social context of preschool, children with prosocial behavior are regarded as well-adjusted, while children with aggressive behavior are regarded as poorly adjusted (Baker, 2006; Fantuzzo, Bulotsky-Shearer, Fusco, & McWayne, 2005). Prosocial behavior refers to positive social interactions that promote harmonious relationships with others, such as helping, sharing, cooperating, and comforting (Carlo, Fabes, Laible, & Kupanoff, 1999; Eisenberg, Cumberland, Guthrie, Murphy, & Shepard, 2005; Scourfield, John, Martin, & McGuffin, 2004). Others benefit from prosocial behavior. Prosocial behavior has been reported to share some characteristics with moral acts (ucci et al., 1999). In contrast, aggressive behavior refers to behavior that harms others physically and/or psychologically (Goldstein, Tisak, & Boxer, 2002; Nelson, Robinson, & Hart, 2005; Vitaro, Brendgen, & Barker, 2006).

Research has shown that children’s evaluation of moral and non-moral transgressions plays a fundamental role in their behavioral regulation (Arsenio & Lemerise, 2004). Smetana (1985) states that in kindergarten children’s evaluation of transgressions in the moral and non-moral domain contributes to regulating their behavior. Moral and non-moral hypothetical transgression stories have been used to explore children’s ability to evaluate and justify these types of transgressions. Studies have revealed that children in kindergarten and adolescents who evaluated moral transgressions in the direction of the non-moral (conventional or personal) domain have been reported to display aggressive behavior (Leenders & Brugman, 2005; Malti et al., 2008;ucci & Herman, 1982),ucci and Herman (1982) have argued that children in preschool who display aggressive behavior may focus on the harm produced by a moral transgressor (Gasser & Keller 2009; Harvey, Fletcher, & French, 2001; Leenders & Brugman, 2005;ucci & Herman, 1982) and the regulation of social relationships (Tisak & Turiel, 1984). The present study focuses on young children aged between five and seven, and examines the relationship between children’s evaluation and justification of transgressions in the moral and non-moral domain and their social behavior (prosocial versus aggressive) as nominated by peers. Moreover, the study was extended to the teacher–child relationship.

4. Relationship between children’s evaluation and justification of transgressions in the moral and non-moral domain and the teacher–child relationship

Research has shown that adult–child interactions may have implications for children’s evaluation of moral and non-moral transgressions (Lagattuta,ucci, & Bosacki, 2010). According to Buzzelli (1996), children experience the concepts of moral and non-moral through their relationship with their teachers, more specifically through teacher–child discourse. Teachers guide chil-
Table 1: Frequencies and percentages of major justification categories provided by the children.

<table>
<thead>
<tr>
<th>Justifications categories</th>
<th>Frequencies and percentages of answers to moral domain stories</th>
<th>Frequencies and percentages of answers to non-moral domain stories</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequencies</td>
<td>Percentages</td>
</tr>
<tr>
<td>Intrinsic T1</td>
<td>42</td>
<td>26</td>
</tr>
<tr>
<td>Conventional T1</td>
<td>68</td>
<td>43</td>
</tr>
<tr>
<td>Punishment T1</td>
<td>35</td>
<td>22</td>
</tr>
<tr>
<td>Personal T1</td>
<td>01</td>
<td>1</td>
</tr>
<tr>
<td>Mixed personal T1</td>
<td>00</td>
<td>0</td>
</tr>
<tr>
<td>Prudential T1</td>
<td>00</td>
<td>0</td>
</tr>
<tr>
<td>Undifferentiated T1</td>
<td>14</td>
<td>9</td>
</tr>
<tr>
<td>Total T1</td>
<td>160</td>
<td>100%</td>
</tr>
<tr>
<td>Intrinsic T2</td>
<td>44</td>
<td>26</td>
</tr>
<tr>
<td>Conventional T2</td>
<td>73</td>
<td>43</td>
</tr>
<tr>
<td>Punishment T2</td>
<td>36</td>
<td>21</td>
</tr>
<tr>
<td>Personal T2</td>
<td>00</td>
<td>0</td>
</tr>
<tr>
<td>Mixed personal T2</td>
<td>00</td>
<td>0</td>
</tr>
<tr>
<td>Prudential T2</td>
<td>00</td>
<td>0</td>
</tr>
<tr>
<td>Undifferentiated T2</td>
<td>16</td>
<td>9</td>
</tr>
<tr>
<td>Total T1</td>
<td>169</td>
<td>100%</td>
</tr>
</tbody>
</table>

T1 refers to time point one.
T2 refers to time point two.

In addition, the child’s behavior can be the starting point for a reaction from the teacher: if a child violates moral rules (e.g., hits other children) and/or school norms (e.g., the child does not wear a neck-tie; or is late arriving in class), this may affect her/his relationship with the teacher(s). The teacher may dislike the behavior and punish the child. This indicates that the teacher’s evaluation of his/her relationship with the child is based on ongoing and past experience. Studies have shown that a child displaying aggressive behavior may violate both moral and conventional rules, which can lead to a disharmonious, conflictual relationship between the child and authority figures such as teachers (Gasser & Keller, 2009; Nucci & Herman, 1982). Nevertheless, we would argue it is the task of the teacher to establish a harmonious, close relationship with every child and guide each child in regulating her/his own behavior by stimulating moral development through helping them to evaluate transgressions in the moral and the non-moral domain and to understand and present justifications accordingly. This educational viewpoint implies that children’s evaluations and justifications of transgressions in the moral and non-moral domain are related to the teacher–child relationship, and children’s social behavior. To the best of our knowledge there is no empirical study available on this proposed relationship.

5. Relationship between the teacher–child relationship and children’s social behavior

Evidence from literature shows that in schools, teacher–child relationship is associated with children’s behavior (Birch & Ladd, 1997; Doumen et al., 2008; Hamre & Pianta, 2001; O’Connor, Collins, & Supplee, 2012; Pianta, 1994; Pianta & Stuhlman, 2004). Closeness between a teacher and a child has been reported to be associated with prosocial behavior in children, whereas conflict has been reported to be associated with aggressive or reticent behavior. For example, children reported as experiencing a poor-quality relationship with their teacher(s) were found to display difficult behaviors, such as aggressive behaviors, in the subsequent years in school (Hamre & Pianta, 2001; Ladd & Burgess, 1999; Pianta & Stuhlman, 2004). Other studies reported that a close relationship between a teacher and a child was associated with a decrease in aggressive behavior by the child in the subsequent years in school (Stuhlman & Pianta, 2001).

Through their relationships with children, teachers are expected to help them to respect moral and non-moral rules in school and support them in distinguishing between moral and non-moral transgressions. Moral transgressions are more serious than violation of conventional rules. If a teacher’s punishment is too harsh, that is to say inappropriate given the child’s transgression (e.g., whipping for not wearing a neck-tie), this may affect the teacher–child relationship in a negative way.

This study examines the relationships between children’s evaluation and justification of transgressions in the moral and non-moral domain, children’s social behavior, and the teacher–child relationship. Empirical evidence shows that a harmonious teacher–child relationship is associated with social behavior (i.e., prosocial or aggressive behaviors) in children (Birch & Ladd, 1997; Hamre & Pianta, 2001). We may assume that children’s social behaviors are related to their evaluation and justification of transgressions in the moral and non-moral domain (Gasser & Keller, 2009; Leenders & Brugman, 2005). We furthermore hypothesize that their evaluation and justification of transgressions in the moral and non-moral domain are associated with the teacher–child relationship, although currently there are no empirical studies available on this issue. This hypothesis is based on the role of the teacher: to educate and correct children’s thinking, such as pointing out the consequences of maladjusted behavior. Furthermore, we assume that a child is an active, co-constructive and reflective subject; s/he does
not only receive messages from the teacher, but also interprets them and relates them to previous experiences. For example, in the story above the child thought being whipped for simply not putting-on a neck-tie was unfair (i.e., morally wrong). For background information on early childhood education in Tanzania we refer to our previous publications (Shavega et al., 2014; Shavega, van Tuijl, & Brugman, 2013).

6. The present study

We examined Tanzanian pre-primary school children’s evaluations and justifications of transgressions in the moral and non-moral domain and whether their evaluations and justifications showed the same pattern as in Western European–American middle class context. In the latter pattern, transgressions in the moral domain are considered both by children displaying prosocial behavior as well as those exhibiting aggressive behavior as more wrong (more non-permissible, more serious, less authority-contingent, and more generalizable) than transgressions in the non-moral domain (Nucci & Turiel, 1978; Smetana, 1999). The pattern further implies that the difference in the way moral and non-moral transgressions are evaluated is greater in children displaying prosocial behavior than in children who display aggressive behavior, as nominated by their peers. Furthermore, the study aims to examine whether children’s evaluation and justification of transgressions in the moral and non-moral domain relate to their social behavior and teacher–child relationship.

The study is guided by two main research questions: first, are Tanzanian children (aged between five and seven years old) able to evaluate and justify hypothetical transgressions in the moral and non-moral domain differently? Second, are children’s evaluations of transgressions in the moral and non-moral domain related to their social behavior and the teacher–child relationship?

On the basis of previous research, the following hypotheses are tested in this study. We expected children nominated by classmates as prosocial or aggressive to evaluate moral transgressions as being more wrong than non-moral transgressions. Furthermore, we expected them to justify moral transgressions on the basis of intrinsic factors and to justify non-moral transgressions on the basis of punishment avoidance, conventional acts or personal preferences. In addition, we expected differences between the two groups: differences in the evaluation of moral and non-moral transgressions will be greater in children nominated as prosocial than in children nominated as aggressive; children displaying prosocial behavior were expected to justify moral transgressions more frequently on the basis of intrinsic factors while children exhibiting aggressive behavior were expected to justify moral and non-moral transgressions more frequently on the basis of non-moral factors. Finally, we expected children’s evaluation and justification of transgressions in the moral and non-moral domain to relate strongly and positively to their social behavior (peer nomination) and teacher–child closeness, and negatively to teacher–child conflict.

7. Method

7.1. Participants

The current study was carried out among pre-primary school children in Ilala municipality, Dar es Salaam region, in Tanzania. This study was a two-wave study with a one-month interval to find out whether children’s responses on moral and non-moral transgressions were consistent. A sample of 10 schools, 10 teachers and 80 children (40 children nominated as displaying aggressive behavior and 40 children nominated as displaying prosocial behavior) participated in this study. Children in both the prosocial and in the aggressive group were evenly distributed with regard to gender (50% male). There was no attrition of participants in the second wave. The age of the children ranged between five and seven years at the first measurement (M = 6.0, SD = .64). Teachers who rated children’s behavior and their relationship were teachers who stayed with these children from the time they started schooling. All teachers were female.

7.2. Pilot study

A pilot study was conducted to find out whether children between the ages of five and seven could respond to our interview materials. We also aimed to test whether children could understand the research materials (short hypothetical transgression stories in the moral and non-moral domain) used to elicit their evaluations and justifications, and whether these stories would elicit scoreable responses. The stories were translated in Swahili, which is the national language; all pre-primary children in Tanzania speak Swahili. The stories used were appropriate for the Tanzanian children according to the first author who is a Tanzanian citizen and school psychologist. The 16 children who participated in the pilot study responded to all hypothetical transgression stories. These children did not participate in the main study.

7.3. Procedure

Permission to conduct the study was issued by the Regional Administrative Secretary (RAS). Teachers gave verbal consent to participating in the study. Children who participated in the study were allowed by their parents following their teachers’ verbal consent. The same information was provided to parents to ensure informed consent. Children were told that the information they gave would be strictly confidential, and the data would be anonymously processed and would be used for academic purpose. The following procedures were used in the main study to obtain the two groups of participants (prosocial or aggressive).

First, we selected children who were able to respond to questions about prosocial and aggressive behaviors. All 379 children from 10 classes who were present on that particular day were first asked individually to mention as many prosocial behaviors (e.g., sharing, helping, and comforting), and aggressive behaviors (e.g., fighting, hitting, and/or bullying other children, using abusive language) they had experienced in their class as they could. Only children who were able to mention behaviors in both categories (prosocial and aggressive) were considered for participation in the nomination process. Children who did not mention any behaviors (e.g., shy children) were excluded from the study. Of the 379 children 276 passed the selection process.

Second, these 276 children participated in the oral interview in the nomination phase. The participation percentage ranged between 60% and 82% per class (M = 74. SD = 7.36). The 276 selected children were interviewed to nominate peers showing more prosocial or more aggressive behaviors. We allowed children to nominate freely their peers because we wanted to get a reasonable number of children with prosocial and aggressive behavior in every class which was under study. Each child was individually interviewed in a separate classroom. During the interview the child was asked to nominate peers who showed either prosocial or aggressive behavior in their class. We emphasized that for a child to be regarded as displaying prosocial or aggressive behavior, the behavior should occur repeatedly. Children were first asked to nominate peers who displayed prosocial behavior followed by peers who displayed aggressive behavior. Each interview lasted for five to seven minutes. Children were assured that the names they gave would be treated as confidential. Children who were reported as displaying prosocial or aggressive behavior were recorded through tallies.
Table 2
Number of items, Cronbach’s alpha, Mean, SD and effect size (Cohen’s d) of teacher–child relationship and children’s behavior as rated by the teacher for children displaying prosocial or aggressive behavior.

<table>
<thead>
<tr>
<th>Variables</th>
<th>n (items)</th>
<th>α</th>
<th>Prosocial children as nominated by peers M (SD)</th>
<th>Aggressive children as nominated by peers M (SD)</th>
<th>Cohen’s d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher–child relationship</td>
<td>6</td>
<td>.95</td>
<td>4.44 (.36)</td>
<td>2.26 (.79)</td>
<td>3.55</td>
</tr>
<tr>
<td>Conflict</td>
<td>5</td>
<td>.80</td>
<td>2.27 (.40)</td>
<td>3.27 (.69)</td>
<td>−1.77</td>
</tr>
<tr>
<td>Children’s behavior as rated by the teachers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prosocial</td>
<td>8</td>
<td>.80</td>
<td>1.67 (.28)</td>
<td>.91 (.23)</td>
<td>2.57</td>
</tr>
<tr>
<td>Aggressive</td>
<td>5</td>
<td>.73</td>
<td>.60 (.34)</td>
<td>1.39 (.30)</td>
<td>−2.46</td>
</tr>
</tbody>
</table>

Children who received many tallies (by at least 1/3 of all the children in the class) in one of the categories were labeled as children showing prosocial or aggressive behavior respectively. Tallies for children nominated as prosocial ranged between 10 and 16, and tallies for children nominated as aggressive between 20 and 25. The range of these tallies indicates that children within the group nominated as aggressive were less homogeneous than in the group nominated as prosocial. Peer nomination was important to reveal the behavior of the child.

Third, two groups of nominated children were selected, 40 children nominated as prosocial and 40 children as aggressive: from each class eight children (four aggressive, four prosocial) with the highest number of nominations for each type of behavior. These children were asked to evaluate and justify hypothetical transgression stories in the main study. The children were interviewed individually in a separate classroom one week after the nomination phase. The interview was arranged after class hours to avoid interruption of lessons. The first author conducted the interview and coded the responses for each child. The interview lasted for 25–30 min. Because there were eight stories and each story seven questions children were getting tired. To solve this, she made a break which involved movement and small talk after every three stories which lasted between two and three minutes. All our participants speak the national language, Swahili, and interviews were given in that language.

7.4. Measures

7.4.1. Children’s evaluation and justification of transgressions in the moral and non-moral domain

Eight hypothetical transgression stories were used to elicit children’s evaluations and justifications of moral and non-moral transgressions. Four hypothetical stories focused on moral transgressions: hitting, teasing, stealing and not helping a young girl who was injured. Two hypothetical stories that focused on conventional transgressions were: not greeting an elderly woman and calling a teacher by her first name. Two stories that focused on personal matters were: choice of playmates and choice of place to play during recess time. We combined conventional transgression and personal matters and regarded them as representing the non-moral domain. We asked seven questions, of which five were about evaluation and justification, which gave a total of 20 items for moral stories and 20 items for non-moral stories.

The images and materials used in the stories (for example, children making structures in the sand) were appropriate to the Tanzanian cultural context. All of the hypothetical transgression stories were adapted from previous studies and contextualized for the present study. For example, stories about hitting, stealing, teasing, and calling a teacher by her first name instead of title were adapted from Killen and Smetana (1999), Nucci and Turiel (1978), Smetana (1981, 1985) and Smetana et al. (1999). Stories about choosing a friend and choice of a place to play were adapted from Yau and Smetana (2003). A story about not greeting an elderly woman was adapted from Song et al. (1987) and a story about not helping a child who had injured her knee was adapted from Miller, Eisenberg, Fabes, and Shell (1996). Each story described the unique occurrence of a transgression: some were depicted as occurring in the classroom context, while other occurred outside the classroom. All stories depicted a Tanzanian context.

Story-telling to children is not a new phenomenon in Tanzania. Stories have traditionally been used to educate children. Elders are responsible for telling real and hypothetical stories aimed at teaching children about obedience, hard work, tolerance, fun, and respect for elders, in this cultural context (Salakana, 1996). National television (Tanzania broadcasting cooperation) is currently broadcasting throughout the country a story-telling program which attracts many children. This justifies our use of this measure in a Tanzanian cultural context. An interviewer read each hypothetical story to the child and the child then responded to the following questions:

1. Is it wrong or right to do such a thing? This addressed the permissibility/acceptability of the action (evaluation 1). The responses to this question were coded as follows: ‘wrong’ was assigned a score of one (1) and ‘right’ was assigned a score of zero (0).
2. How bad is it to do such a thing? This question addressed the severity of the action (evaluation 2). Responses regarding severity were coded on a 3-point scale ranging from 1 (not at all bad), 2 (a little bad), and 3 (very bad).
3. Why is it bad/not bad? This question addressed their justification for their evaluation. Coding of the justification of the responses for wrongness was adapted from previous research (Smetana et al., 1999). The answers were grouped in seven classes as follows: (1) intrinsic consequences included child’s responses such as it hurts, causes harm or loss, makes other children feel sad, etc. (2) Punishment avoidance and authority prohibition included responses such as an action is wrong because it is forbidden by the teacher/parent; it is against school rules, or will result in punishment by authorities e.g., teachers or parents. (3) Conventional act: appeal to politeness, status differences, or cultural or local norms or expectations, e.g., she is older than you, so she knows better than you; it is impolite; that is the way we do it here; the action is wrong because it violates social norms. (4) Personal preferences; action reflects personal choice or individual preferences, for instance because she likes it; it is OK to choose your own friend. (5) Mixed personal: the action is personal as long as it does not have practical consequences, e.g., it is up to her/him as long as it is safe. (6) Prudential, the action has consequences for the child’s health. (7) Undifferentiated, the action is bad or wrong for unspecified reasons. The child’s response about her/his justification matched with at least 1 among the 7 classes, which was assigned a score of 1 and the rest were assigned a score of 0.
4. If nobody knew that the action would take place, would it then be right or wrong? This question addressed the absence of rules (evaluation 3). Responses about the absence of rules were coded as follows: ‘wrong’ was given a score of one (1) and ‘right’ was assigned a score of zero (0).
5. If the teacher did not tell the child that the action would not be acceptable, would it be right for the child to...? This ques-
ation addressed children’s evaluation of authority contingency (or authority independence) such as adult approval (evaluation 4); a ‘wrong’ response was assigned a score of one (1) and ‘right’ was assigned a score of zero (0).
6. If everybody were doing such things, would it then be wrong or right? This question addressed generalizability (evaluation 5). ‘Wrong’ was given a score of one (1) and ‘right’ was given a score of zero (0).
7. Have you ever been involved in this action? If yes how often? This question addressed the child’s involvement in the transgression. To investigate how often the child was involved in the transgression we used a 4 point Likert scale, ranging from “never” (1) to “always” (4).

Evaluation items (20) addressed non-permissibility, absence of rules, authority independence, and generalizability, while response on severity focused on the evaluation of being not at all bad, bad, and very bad. Because scoring for the severity items differed (1–3 vs 0/1 of the other items), we transformed means for severity variables to 0–1. Response on the behavioral prevalence item was analyzed separately. Justification categories (reasons for evaluation, e.g., why is it wrong) for each justification criterion were summed for the moral and non-moral domain separately. The responses were presented on the basis of the frequency with which intrinsic factors, punishment avoidance, conventional acts, personal preferences, mixed personal, prudential, and undifferentiated reasons were reported and were differentiated according to domain. When answers were based on the welfare of others, such as fairness and rights of others, the justification was scored as intrinsic. When justification was based on customs, traditions, punishments, rule of authority or personal factors, the justification was scored as non-moral (Leenders & Brugman, 2005). The sum scores of justification based on intrinsic and non-moral factors were computed separately. A high score in each category indicated more frequent use of justifications in the moral and/or non-moral domain and a low score indicated less frequent use of justifications in the moral and/or non-moral domain respectively.

The first author and a research assistant interviewed 20% (N = 16) of the participants for inter-observer reliability. The inter-observer intra-class correlation coefficients (two-way mixed, type consistency) for the evaluation of transgressions in the moral and non-moral domain were .96 and .94 respectively. Moral justifications based on intrinsic and non-moral factors were .86 and .92 respectively and non-moral justifications based on intrinsic and non-moral factors were .96 and .98 respectively. According to Cicchetti et al. (2006) these correlations imply excellent agreement.

The evaluation and justification of transgressions in the moral and non-moral domain were measured in two waves with a one-month time-interval. The reliability (Cronbach’s alpha) of moral transgressions at T1 was .92 and at T2 .93. Cronbach’s alpha of non-moral transgressions at T1 was .89 and at T2: .89. For frequencies and percentages of major justifications categories provided by the children see Table 1. We compared children’s evaluation and justification of transgressions in the moral and non-moral domain between the two waves to obtain indexes of test-retest reliability. Spearman’s correlation coefficients were computed. The reliability of evaluations between the two waves ranged from moderate to strong: evaluations in the moral and non-moral domains were reliable (r = .81, p = .00; r = .94, p = .00 respectively). Justifications in the moral and non-moral domain based on intrinsic factors were moderately stable (r = .49, p = .00; r = .44, p = .00 respectively), as were justifications in the moral and non-moral domain based on non-moral factors (r = .46, p = .00, r = .41, p = .00 respectively).

7.4.2. Student–teacher relationship scale (STRS)
STRS is a measure designed to measure teacher’s perceptions about her/his relationship with a child (Pianta, 1994). Teachers rated their relationship with the children who were nominated by their peers as showing prosocial or aggressive behavior. The rating was done during the first stage of the hypothetical transgression stories interview. Teachers were blind on children’s social status according to their peers. The measure comprises three constructs: closeness, conflict, and dependency. Two constructs (closeness and conflict) were adapted for this study (Shavega et al., 2014). Dependency was not included. Closeness refers to the extent to which a teacher experiences a harmonious relationship with the child in school, an example being “working with this child gives me self-confidence”. Conflict refers to the extent to which a teacher experiences misunderstanding with the child in school, for example “this child argues a lot with me”. All items were rated on a 5-point Likert scale ranging from “never” (1) to “always” (5) (mean scores were calculated). These measures have been used earlier in the Tanzanian context and their reliability was sufficient: for closeness Cronbach’s alpha was .74 and for conflict .63 (Shavega et al., 2014). For the number of items, means and reliability for this study see Table 2 and for bivariate correlations see Table 3.

7.4.3. Preschool behavior questionnaire (PBQ)
Teachers reported on children’s behavioral adjustment using the PBQ (Behar & Stringfield, 1974; Tremblay, Vitaro, Gagnon, Piché, & Royer, 1992). The ratting was done at the first stage of the hypothetical transgression stories interview. We used two subscales for behavioral adjustment: prosocial and aggressive behavior. Prosocial behavior comprised items such as “this child likes sharing”, while aggressive behavior included items such as “this child fights with other children”. The items were rated on a 3-point Likert scale with the options “does not apply” (0), “sometimes applies” (1), and “always applies” (2). The teachers’ report validates peer nominations. For the number of items, means and reliability see Table 2 and for bivariate correlations see Table 3.

7.4.4. Peer nomination
Peer nomination was based on peer perception of prosocial or aggressive behavior, which was recorded through tallies. Tallies ranged between 10 and 16 for prosocial children and 10 and 25 for aggressive children, which was partly due to the number of children who participated in the nomination process in each class. During standardization children nominated as prosocial were assigned a positive score and children nominated as aggressive were assigned a negative score. The mean age of children with prosocial behaviour was 6.0 years and 5.9 years for children with aggressive behavior. The difference in age between these groups was not significant (t = 7.56, df = 78, p = .46). We calculated the single-item reliability for prosocial behavior and for aggressive behavior using a procedure which has been used by other researchers (Verlinden et al., 2014). In this study, Cronbach’s alpha coefficient for prosocial behavior was .72 and for aggressive behavior was .88.

7.5. Data analysis plan
We calculated the means and standard deviations for the evaluation criteria for each moral and non-moral domain at both time points. Moral evaluation refers to responses in the moral domain (4 stories) and non-moral evaluation refers to responses in the non-moral domain (4 stories). Criterion variable was children’s social behavior as rated by peers. Because children were re-interviewed after a one-month interval, the results are presented at both time points for each domain, differentiated for children showing prosocial and children showing aggressive behavior. For age and gender, bi-variate correlations with the other variables in this study were
not significant. Therefore, age and gender were excluded from the analyses. We ran mixed between-within subject analysis of variance to assess the impact of children on evaluation and justification in the moral and non-moral domain across two time points. Spearman's rank order correlations were used to investigate correlations among the variables and the reliability indicator of children's evaluation and justification in the moral and non-moral domain from Time 1 to Time 2. Reliability indicator was used for validation purposes.

We ran hierarchical regression analyses to examine whether the teacher–child relationship, and evaluation and justification in the moral and non-moral domain were related to children's social behavior. Teacher–child closeness was entered as a predictor variable in Step 1. Evaluation in the moral domain and justification in the moral domain based on intrinsic factors were entered at Step 2. Justification in the non-moral domain based on intrinsic factors was not included in the model because it has a perfect negative relationship with justification in the moral domain based on non-moral factors. Data were analyzed using the IBM SPSS 20 version.

8. Results

8.1. Evaluation and justification of transgressions in the moral and non-moral domain

In line with our first hypothesis, both children nominated as prosocial and children nominated as aggressive by their peers, evaluated moral transgressions as more wrong than non-moral transgressions at both time points (see Table 4). Furthermore, these groups differed from each other in their differential evaluation of transgressions in the moral and non-moral domain. On average, as expected, the differences between the evaluation of transgressions in the moral and non-moral domain were larger within the group of children displaying prosocial behavior than within the group of children displaying aggressive behavior. Cohen's effect size values (d) suggested strong effects (see Table 4). Children nominated as prosocial evaluated transgressions in the moral domain as more wrong than children nominated as aggressive at both time points. Transgressions in the non-moral domain were evaluated as more wrong by the prosocial group than by the aggressive group at Time 1 but not at Time 2.

Children displaying prosocial behavior mentioned many more intrinsic factors as justifications for transgressions in the moral domain than children displaying aggressive behavior, whereas the latter group used non-moral factors more often to justify moral transgressions than their prosocial counterparts. In the non-moral domain, children displaying prosocial behavior infrequently used intrinsic factors in their justifications, but slightly more than children displaying aggressive behavior did. Both types of children frequently used non-moral factors to justify non-moral transgressions. Another unexpected finding which does not answer any hypothesis but is worth reporting, was that children in both groups justified moral and non-moral transgressions more frequently on the basis of non-moral factors, except for children displaying prosocial behavior at Time 1. This finding contradicts the pattern found in Western European–American middle class context. However, children nominated as displaying aggressive behavior justified moral and non-moral transgressions more frequently on the basis of non-moral factors than did their prosocial counterparts (Table 4).

8.2. Results of mixed between-within subjects analysis of variance

Mixed between-within subjects analysis of variance was conducted to assess the impact of two groups of children nominated as displaying prosocial or aggressive behavior on evaluations and justifications in the moral and non-moral domain across two time points. We found two significant interaction effects; both for justifications in the moral domain (Table 5). First, an interaction effect of time and children's social behavior as nominated by the peers (prosocial or aggressive) on intrinsic-factor justifications for moral transgressions. For the interaction effect, see Fig. 1. Another interaction effect of time and children's social behavior as nominated by peers was found on non-moral-factor justifications for moral transgressions. For the interaction effect, see Fig. 2. The lines do not cross, but means of each group differs and over time the lines differ in direction, showing an increase or a decrease.

We found five main effects of time and behaviors (Table 5). First, there was a substantial main effect of time on the evaluation in the moral domain, suggesting that all children evaluated
Table 4
Mean, standard deviation and effect size (Cohen’s d) of evaluation and justification of moral and non-moral transgressions, and behavioral prevalence for children displaying prosocial or aggressive behaviors as nominated by peers.

<table>
<thead>
<tr>
<th>Scales</th>
<th>Moral domain</th>
<th>Non-moral domain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Prosocial children M (SD)</td>
<td>Aggressive children M (SD)</td>
</tr>
<tr>
<td>Evaluation scales</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation T1</td>
<td>.84 (.18)</td>
<td>.58 (.30)</td>
</tr>
<tr>
<td>Evaluation T2</td>
<td>.89 (.15)</td>
<td>.64 (.31)</td>
</tr>
<tr>
<td>Justification scales</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intrinsic factor T1</td>
<td>2.02 (1.12)</td>
<td>2.2 (1.61)</td>
</tr>
<tr>
<td>Intrinsic factor T2</td>
<td>1.92 (.97)</td>
<td>.76 (.68)</td>
</tr>
<tr>
<td>Non-moral factors T1</td>
<td>1.97 (.12)</td>
<td>3.77 (.61)</td>
</tr>
<tr>
<td>Non-moral factors T2</td>
<td>2.50 (.19)</td>
<td>3.62 (.63)</td>
</tr>
<tr>
<td>Behavioral prevalence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behavioral prevalence T1</td>
<td>1.02 (.08)</td>
<td>2.61 (.35)</td>
</tr>
<tr>
<td>Behavioral prevalence T2</td>
<td>1.16 (.23)</td>
<td>2.29 (.27)</td>
</tr>
</tbody>
</table>

Fig. 2. Interaction effect of time and children’s social behavior as nominated by peers (prosocial or aggressive) on non-moral-factor justifications for moral transgressions.

Transgressions in the moral domain at Time 2 as more wrong compared to Time 1. Partial eta squared was .15, indicating a substantial effect. Second, there were substantial main effects of behavior on evaluation in moral and non-moral transgressions, suggesting that children nominated as displaying prosocial behavior evaluated transgressions in the moral and non-moral domain as more wrong than children nominated as aggressive at both time points. Partial eta squared was high (.22) in the moral domain, indicating that the effect was meaningful, and lower (.08) for evaluation in the non-moral domain, indicating a smaller effect. Third, there were two main effects of time of justification in the non-moral domain based on intrinsic and non-moral factors respectively. This suggests that children used intrinsic and non-moral-factor justifications in the non-moral domain more frequently at Time 2 than at Time 1. Partial etas squared were .11 and .07, indicating small effects respectively.

8.3. Relationships between children’s evaluation and justification in the moral and non-moral domain, teacher–child relationship, and children’s social behavior as nominated by peers

A bivariate correlation was run among the variables. The results showed that many variables were correlated with each other. Conflict, evaluation in the non-moral domain and justification in the non-moral domain based on intrinsic factors, however, were not correlated with many variables (Table 3). Since intrinsic factors and non-moral factors are mutually exclusive the correlation was perfectly negative. Justification of moral transgressions based on non-moral factors and justification of non-moral transgressions based on non-moral factors were not reported in table because they have an opposite relationship of the same strength as justification of moral transgressions based on intrinsic factors and justification of non-moral transgressions based on intrinsic factors.

9. Discussion

In this study, we used hypothetical transgression stories at two measurement times to explore how Tanzanian pre-primary school children evaluate and justify transgressions in the moral and non-moral domain and whether their evaluation and justification show the same pattern as found in Western European–American middle class context. We furthermore examined the associations between children’s evaluation and justification, teacher–child relationship, and children’s social behavior.

In this study, children nominated by their peers as displaying prosocial or aggressive behaviors both consistently evaluated moral transgressions as more wrong than non-moral transgressions. This finding is in line with research results from Western European–American middle class context (Gasser & Keller, 2009; Nucci & Turiel, 1978; Smetana, 1981, 1985). Furthermore, the finding is consistent with the claim of cultural universality for the moral domain (Graham et al., 2012).

Our findings revealed that children nominated as displaying prosocial behavior evaluated moral transgressions more frequently as more wrong and justified moral transgressions on the basis of negative intrinsic consequences that inflict harm on others more frequently than children with aggressive behavior. This might be attributed to the fact that children displaying prosocial behavior have been consistently reported to be more concerned with the welfare of others (Nucci & Herman, 1982) compared to children displaying aggressive behavior (Gasser & Keller, 2009; Leenders & Brugman, 2005). On the basis of this finding, we can conclude that children showing prosocial behavior do distinguish in their justifications between moral and non-moral transgressions, whereas children showing aggressive behavior rarely make this distinction. In this study children nominated as displaying aggressive behavior less frequently evaluated moral transgressions as wrong, presumably in favor of their own transgressive moral behavior (a self-serving bias). Children in this group were reported to engage in moral and non-moral transgressions more frequently...
than their counterparts who were nominated as prosocial (see Table 1, behavioral prevalence). Limitations in understanding the consequences of aggressive behavior rather than self-serving bias may also explain their behavior.

We found that both children displaying prosocial and those displaying aggressive behaviors justified non-moral transgressions more frequently on the basis of non-moral factors. These findings are consistent with findings from Western European–American middle class context (Gasser & Keller, 2009; Leenders & Brugman, 2005; Malti et al., 2009; Smetana, 1985). This implies that children are aware of the customs and traditions of their culture. This may mean that children focus on authority approval for their decision making (see also Nucci & Herman, 1982).

Children in both groups frequently justified moral and non-moral transgressions on the basis of non-moral factors, except prosocial children at the first measurement. In the Tanzanian urban middle class context, this may reflect the emphasis on obedience and respect for adults. In addition, in Tanzania, the issue of morality is a broad one, because in the African context morality is closely related to religion, while in Europe religion and morality are much more autonomous (Michael & Verhofen, 1997). For example, during the interview children were asked “Why is hitting wrong?”; many children responded that it was against God’s will and/or was prohibited by teachers or parents. When they were asked “Why is not greeting an adult wrong?”; many children responded that it was bad manners, or it was not allowed. All these responses were recorded as non-moral justifications because the moral domain only refers to intrinsic consequences. However, in most cases in the African context, any action which children believe to be against God’s will is considered as a violation of a moral rule. We speculate that belief in God may be a step further from a conventional authority in the direction to the moral domain.

The research results were in line with our hypothesis that children’s evaluation and justification in the moral and non-moral domain relate strongly and positively to children’s social behavior (as nominated by peers) and teacher–child closeness, but negatively to teacher–child conflict. Bivariate correlations revealed significant relationships among variables, with a few exceptions (see Table 3). Using hierarchical regression we found that closeness and evaluation in the moral and non-moral domain was substantially related to children’s social behavior. In the final model closeness was more strongly related to the child’s social behavior than her/his evaluation of transgressions in the moral domain. This implies that the teacher–child relationship plays a more important role in children’s social behavior than does their evaluation of transgressions in the moral domain.

9.1. Strengths, limitations and directions for future research

This study has several strengths. First, the study of evaluation and justification of transgressions in the moral and non-moral domain is the first in the Tanzanian, urban, middle-class context and adds to the literature on the moral domain theory in non-Western European–American middle class context countries with a collectivist cultural orientation. Second, this is the first study on the relationships between children’s evaluation and justification in the moral and non-moral domain, the teacher–child relationship, and children’s social behavior. Third, the assessment across two time periods and including children who were nominated as prosocial and aggressive strengthened this paper. Fourth, the nomination of children as displaying prosocial and aggressive behaviors through peer ratings was validated by the teacher ratings. This was a methodological strength of the study because children’s social behavior (the predictor variable in our model) was based on another informant than teacher–child relationship (the model’s criterion variable).

This study has also limitations. First, we used teacher ratings to report on their relationship with the children. Information from a single informant may be associated with bias. In the future coding of children’s responses should be conducted by researcher blind to children’s status rather than being conducted by reviewers. Also it would have been better if we could also have asked the children about their relationship with their teachers. Furthermore, to avoid possible biases in the future, also children should be asked to report on their relationship with their teachers. Second, the use of non-moral justifications by children displaying prosocial behavior together with mentioning God in this particular cultural context may imply that in Africa, and in Tanzania, urban middle-class context in particular, the moral justifications are viewed in a broader way than in Western European–American middle class cultures. In the future, research on what Tanzanian children consider as moral justification is needed. Third, we did not include hypotheti
cal transgression stories on relational aggression. In the future, such hypothetical transgression stories should be included to cover the full range of (anti) social behavior. Fourth, the sample in this study was fairly small. Although it was sampled from a number of schools, they are all located in the same urban area in Tanzania, which limits the generalization of the findings to the country as a whole. In the future we suggest a larger study to be carried out with samples from both urban and rural locations to generalize the findings to the Tanzanian context. Fifth, the first author was aware of the child’s status as aggressive or prosocial which might introduce a potential bias during the standard moral and non-moral domain interview. In the future we suggest that an interviewer should be blind to the status of the child’s behavior. Finally, the adaptation of measures and stories could be more extensive with more attention to the translation procedures, and asking community members to check the adaptation of the stories. In the future, this point should receive attention.

9.2. Implications

Teachers should provide a good example to children, for example by demonstrating prosocial behavior and supporting the child’s
moral development by distinguishing moral from non-moral transgressions. This implies that in case of a transgression in the moral or non-moral domain of the children, the teacher should react accordingly, taking into account the seriousness of the transgression. Children may copy behavior from teachers, which may support them in their moral development when teachers distinguish in their reaction between moral and non-moral transgressions. In sum, pre-primary school teachers have a substantial role to play in supporting the children in their behavioral, moral and academic development, by helping them to develop appropriate behaviors and moral insights which may subsequently lead to a better social adjustment and academic performance in school.

10. Conclusion

The study highlighted the fact that pre-primary children (age five to seven) in a Tanzanian urban middle-class context are already able to evaluate moral transgressions as more wrong than transgressions in the non-moral domain. In contrast to the children nominated as aggressive, most of the children nominated as prosocial were able to justify moral transgressions on the basis of intrinsic factors. Both groups of children nominated as prosocial or aggressive, justified transgressions in the moral and non-moral domains on the basis of non-moral factors. In addition, children from both groups justified transgressions in the moral and non-moral domains on the basis of non-moral factors, which may mean that children in Tanzania value conventional norms which might be rooted on their cultural orientations.

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References


