

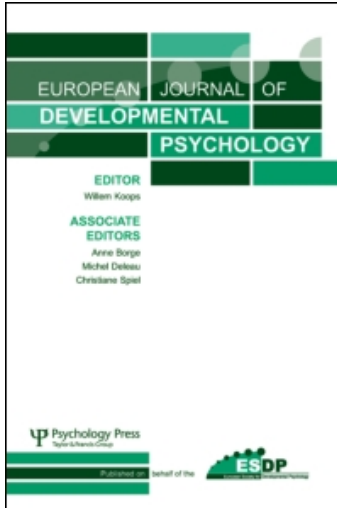
This article was downloaded by: [Grazzani Gavazzi, Ilaria]

On: 20 April 2011

Access details: Access Details: [subscription number 936669918]

Publisher Psychology Press

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



European Journal of Developmental Psychology

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title~content=t713684600>

Children's and adolescents' narratives of guilt: Antecedents and mentalization

Ilaria Grazzani Gavazzi^a; Veronica Ornaghi^a; Carla Antoniotti^a

^a Università degli Studi di Milano-Bicocca, Milan, Italy

First published on: 28 June 2010

To cite this Article Gavazzi, Ilaria Grazzani , Ornaghi, Veronica and Antoniotti, Carla(2011) 'Children's and adolescents' narratives of guilt: Antecedents and mentalization', European Journal of Developmental Psychology, 8: 3, 311 – 330, First published on: 28 June 2010 (iFirst)

To link to this Article: DOI: 10.1080/17405629.2010.491303

URL: <http://dx.doi.org/10.1080/17405629.2010.491303>

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: <http://www.informaworld.com/terms-and-conditions-of-access.pdf>

This article may be used for research, teaching and private study purposes. Any substantial or systematic reproduction, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

Children's and adolescents' narratives of guilt: Antecedents and mentalization

Ilaria Grazzani Gavazzi, Veronica Ornaghi and
Carla Antoniotti

Università degli Studi di Milano-Bicocca, Milan, Italy

In this study, situational antecedents and mentalization of guilt were examined by asking children and adolescents for written narratives. The sample of 240 participants, aged between 9 years and 15 years 6 months, was divided into two groups of 120 children ($M=9$ years and 7 months; $SD=0.4$) and 120 adolescents ($M=14$ years and 7 months; $SD=0.4$). Participants displayed typical development, were recruited at schools in Milan city, and came from middle-class backgrounds. There was an equal number of males and females in each of the two age groups. Both content analysis for antecedents and mental states language analysis for mentalization were applied to the texts. We found that the distribution of guilt antecedents varied as a function of age, and only in the adolescent group as a function of gender. We also found that the use of mental states language varied very significantly with age, but not with gender. The results support the idea that in the transition from childhood to adolescence antecedents shift their focus from externalizing behaviours to internal thoughts and intentions; in addition, a more advanced ability to represent and reflect on the experience of feeling guilty is acquired.

Keywords: Antecedents of guilt; Mentalization; Moral emotions; Narrative method.

INTRODUCTION

The present study used a narrative approach to examine the antecedents and mentalization of guilt in children and adolescents, with an additional focus on gender.

Correspondence should be addressed to Ilaria Grazzani Gavazzi, Department of Human Sciences, Building 6, Room 2122, Piazza Ateneo Nuovo, 1, I-20126 Milan, Italy. E-mail: ilaria.grazzani@unimib.it

We wish to thank the Università degli Studi di Milano-Bicocca for a grant assigned to the first author of the study (FAR 2007).

We also wish to thank Dr. Clare O'Sullivan for the linguistic revision of the paper.

Most studies on guilt have concentrated on infancy and childhood, investigating a number of theoretical and empirical issues such as the emergence of self in relation to self-conscious emotions, the acquisition of moral standards and their implications for moral behaviour, the understanding of guilt in relation to the development of a theory of mind (ToM), and the link between early abuse and later proneness to guilt and/or to shame (see Tangney, Stuewig, & Mashek, 2007, for a recent review of this literature). Less attention has been devoted to pre-adolescents and adolescents, despite evidence that important cognitive and emotional changes occur during these life-cycle stages (Adams & Berzonsky, 2003). The current study therefore aimed to fill this gap by focusing on adolescence and comparing it with the preceding developmental stage of childhood.

While the study followed the traditional line of enquiry into the situational antecedents of guilt, it also added a novel dimension, i.e., an exploration of the mentalization of guilt. Both antecedents and mentalization were analysed as a function of gender.

A further innovation introduced by this study was the use of a narrative methodology, which has not been traditionally used in studies on guilt.

Guilt is a typical self-conscious emotion reflecting a person's cognitive and social status (Lewis, 2000). It is also classified as a social, moral and evaluative emotion and, as such, it has been investigated with regard to some important dimensions (Tangney & Dearing, 2002; Tangney & Fischer, 1995). For instance, the "focus dimension" for guilt is a particular action or behaviour involved in the creation of a morally wrong outcome; the associated "degree of pain" is generally low, particularly when compared with shame or embarrassment; in terms of the "interpersonal relationship" dimension, there is worry about the effect of one's own actions on others, while with regard to "action tendencies" guilt inspires the desire to apologize and make amends for misbehaviour.

Guilt emerges between the ages of two and a half and three years, and requires children to have a sense of self as well as the ability to compare their own feelings and behaviour with the standards, goals and rules that characterize their life context (Lewis, 2008a, 2008b). Recent research in this regard has shown that at about age two, young children begin to be aware of their own misbehaviour, transgressions and inadequate performance, and that they begin to experience tension, aversive arousal and negative emotions as a consequence of such events (Kochanska, Gross, Lin, & Nichols, 2002).

Within the study of the development of guilt, a major strand of research has focused on children's understanding of guilt together with

their understanding of shame. The theoretical background to this line of enquiry was the development of children's understanding of the mind, particularly with regard to emotional mental states (Ferguson, Stegge, & Damhuis, 1991; Harris, 1989). In this context, it has been amply demonstrated that only children over the age of 6–7 years are able to take emotional reactions into account when morally evaluating a wrongdoer (Ferguson & Stegge, 1995; Tangney, Burgraf, & Wagner, 1995; Tangney et al., 2007), and that the majority of 9- to 10-year-olds can clearly differentiate between shame and guilt, whereas by age 10–12 the adaptive implications of both emotions are understood (Fergusson & Stegge, 1995).

In the field of moral development, Piaget stated that while children display “heteronymous” moral thinking, based on adult authority and the perceptual outcomes of events, adolescents develop an “autonomous” moral system, based on the comprehension and critical evaluation of rules and norms, and on personal responsibility for their own actions (Piaget, 1932). Kohlberg (1984) was the first scholar to examine moral development from a sociocognitive perspective. This approach was subsequently extended by other researchers, who criticized Kohlberg for having confounded the “moral sphere”—in its true sense of well-being, rights and justice in relationships with others—with the “sphere of conventional behaviour”, which involves respect for the rules and norms determined by social context, such as table manners. In fact, it is mainly during adolescence that awareness of the distinction between these two dimensions is acquired (Smetana & Turiel, 2003). While some recent theoretical perspectives (Haidt, 2003; Hauser, 2006) have argued for the existence of a sort of moral grammar from earliest infancy—which would enable children to rapidly and automatically assimilate norms and behave morally—conscious awareness is still a critical requirement at a subsequent stage of development in order for behaviours to be retrospectively understood and reflected upon. Much of this crucial later development takes place in adolescence. In fact, mental development after the age of twelve is characterized by a growing ability to apply abstract and formal reasoning, leading to advanced mastery and use of specific meta-cognitive abilities, which in turn allow teenage boys and girls to attain greater self-consciousness (Byrnes, 2003), and a more sophisticated understanding of emotions. In fact, adolescents move from understanding emotions in terms of their external causes, to emotion understanding as a “reflective” emotional competence, as emerges from Harris and colleagues’ account of the development of emotion understanding (Harris, 2008; Pons, de Rosnay, Doudin, Harris, & Cuisinier, 2006).

More advanced mentalizing and abstraction skills necessarily involve, among other aspects, greater knowledge of moral emotions and their impact on the behaviour of self and others. In adolescence, the interrelationship between cognitive, moral and emotional components becomes even more crucial and the link between socio-emotional and moral development is made clear by the fact that moral and emotional experience may no longer be separated. In fact, as Turiel (2006) claims, it is difficult to imagine adolescents professing ideals of justice and equality without simultaneously experiencing strong emotions and feelings, such as empathy for those who suffer or anger against perpetrators of violence and abuse (Blasi, 2004).

In terms of individual differences, the broad social consensus regarding “wrong” behaviours (e.g., interpersonal violence, criminal acts, stealing) may mask individual meanings relating to the experience of the implied emotion. In this regard, Gilligan (1982) was one of first to point out that the socialization of males differs from that of females with regard to emotions. Males are socialized so as to emphasize issues of justice, rules and rights, whereas females are socialized with an emphasis on care and concern for others. Gender in research on emotions is a complex variable: differences and similarities have been found in all of the specific aspects investigated, i.e., expression, understanding and regulation of emotions. For instance, researchers have reported that female children express more empathy and distress than male children, and that female adolescents feel more intense guilt (Zahn-Waxler, Kochanska, Krupnick, & McKnew, 1990). Research on ToM and the understanding of emotions, on the contrary, has found more similarities than differences (Pons, Harris, & de Rosnay, 2004).

Research on guilt and other emotions has traditionally been carried out using either set stories and scenarios or structured tasks (Camodeca & Menesini, 2007; Harris, 1989; Olthof, Ferguson, Bloemers, & Deij, 2004), instead of asking children to narrate personal episodes in which they felt guilty. Only in recent years have narrative methods begun to be applied to the study of emotions through the use of autobiographical narratives (e.g., Baumeister, Stillwell, & Heatherton, 1995; Fivush, Marin, Crawford, Reynolds, & Brewin, 2007; Grazzani Gavazzi & Ornaghi, 2007; Silfver, 2007). This has involved investment in the creation of relevant ad hoc instruments and specific content analysis procedures on the part of researchers (Silfver, 2007). A narrative approach to the study of emotions can be useful for several reasons. First of all, emotions appear to have the same formal structure as stories, with the normative sequence of normality, appraisal of a highly relevant non-normal event, emotional reaction, and ensuing action (Habermas & Bluck, 2000). For example, in the case of fear, the normal flow of events is interrupted by a circumstance that the subject appraises as a threat; a physiological response ensues, arousing and preparing the body for action, for example flight. Similarly, in structurally

well-formed stories (Stein & Glenn, 1979) a precipitating and problematic event compels the protagonist to act in order to resolve the disturbing circumstance and restore a state of equilibrium.

Moreover, by asking for personal accounts of experiences of guilt, it is possible to identify personal determinants of the guilt emotion and to obtain linguistic material that may be analysed for both antecedents and mentalization.

The term mentalization is used with different shades of meaning within psychological theory and research (Fonagy & Target, 1997). In the current paper, we follow numerous other authors in using “mentalization” to refer to theory of mind (ToM), i.e., the ability to identify internal states and their characteristic features as the causes of overt behaviours (Harris, 2008), and to predict the behaviours of self and others on the basis of inner states.

Olson (1994) argued that ToM development is also dependent on the acquisition of the metacognitive and metalinguistic terms used to refer to mental states and speech acts (cf. Astington & Baird, 2005). Mental states language or talk is defined as a particular type of lexicon made up of semantic terms referring to the inner states of self and others (Bartsch & Wellman, 1995; Bretherton & Beegley, 1982). The acquisition of a mental state lexicon starts at around age 2 and is considered an important indicator of children’s early understanding of the mind. Initially, children use terms relating to perception (such as *see*), volition (such as *want*) and emotion (such as *be afraid*); from 3 years, more cognitive terms (such as *believe*) and moral terms (such as *should*) appear in their lexicon. The latter two types of mental state term are considered to be more complex than the preceding three. Although it is true that each category of the mental state lexicon contains items of varying complexity (e.g., in the volition category “want” is a simpler term than “long for”), overall some categories are simpler than others, because they are acquired and understood earlier in development. Mental states talk evolves from a simple “conversational device” to a complex tool used by children to express their knowledge and understanding of the mind (Dunn & Brophy, 2005).

Recent research has focused on the use of internal states language in personal narratives associating this type of lexicon with reflection on cognitive and emotional experiences (Fivush & Baker-Ward, 2005). In this context, the use of internal states language is considered indicative of cognitive and emotional processing aimed at creating meaning. The use of a mental lexicon appears both to help people to understand autobiographical events, and to reflect the process of meaning making. Children, during their development, come to incorporate internal states language into their personal narratives (Fivush, 2008), via the progressive introduction of increasingly complex terms.

The research question and predictions

Very few studies to date have compared children and adolescents in terms of both the situational determinants and the understanding of moral emotions. For this reason, we linked our study to previous research, but introduced a focus on the comparison between childhood and adolescence. In addition, we opted for a narrative approach, investigating the types of event that typically elicit guilt as well as children's and adolescents' mental representations—in other words their mentalization—of guilt.

We predicted that there would be differences between the two age groups, both in the antecedents and mentalization of guilt. More specifically, we expected that the events reported by the children would be more related to concrete facts and their immediate, visible consequences. In contrast, we expected that adolescents would describe guilt events in relation to moral norms internalized at a higher or abstract level, focusing not only on the “misdeed”, but also on its interpersonal consequences and the possibility of making up for it. We also predicted superior mentalization of guilt as a function of age, as evaluated in terms of the mental states language used in the written texts. We did not make particular predictions about gender, as the findings on gender difference reported in the literature on emotions are contradictory and controversial (Rosenblum & Lewis, 2003).

METHOD

Participants

There were 240 participants (M : 12.3; SD : 2.5): 120 children (age range: 9 years–10 years and 11 months; M : 9 years and 7 months; SD : 0.4) and 120 adolescents (age range: 14 years–15 years and 6 months; M : 14 years and 7 months; SD : 0.4). In both groups, participants were equally divided by gender. They were recruited from primary (4th and 5th grade) and secondary (9th and 10th grade) schools in Milan (Italy), came from middle-class socioeconomic backgrounds and displayed typical development. Signed parental consent was obtained for their participation in the study.

Material and procedure

Participants were asked to complete an anonymous 3-page narrative instrument, entitled SRE (in the original language: *Strumento per la Rilevazione di Episodi Emotivi*; namely Instrument for the Recording of Emotional Episodes). In A4 size format, it had already been used in two previous studies (Antonioti, Grazzani Gavazzi, & Ornaghi, 2006; Grazzani

Gavazzi & Ornaghi, 2007). In the first of these studies, the Emotional Intelligence Scale of Schutte et al. (1998) was administered alongside the narrative instrument, in order to confirm its construct validity.

The SRE consisted of a cover page, a page requesting sociodemographic information, and an emotion page with two questions on guilt. In the current study, participants were first asked to write about an autobiographical episode from their own lives when they had felt guilty (“antecedent question”), and then to write about how they personally mentalize guilt (“mentalizing question”). The latter question was formulated as follows: “Try to explain what it means to feel guilty”. Thirty minutes was the allotted time for completion of the instrument.

On the emotion page, an equal amount of space was provided for the answers to each of the two questions.

Coding

Two separate types of content analysis were carried out on the transcripts. The first examined the narratives of the emotional antecedents and the second explored how guilt was mentalized.

Coding antecedents of guilt. Answers to the first question were transcribed and content analysis was carried out on a total of two hundred and forty narratives. The coding scheme for situational antecedents was developed based on theory and findings from previous research on guilt (Castelfranchi, D’Amico, & Poggi, 1994; Lewis, 2000; Olthof et al., 2004; Olthof, Schouten, Kuiper, Stegge, & Jennekens-Schinkel, 2000; Williams & Bybee, 1994) and on the themes that emerged from reading the narrative texts, as well as on categories previously identified by Grazzani Gavazzi, Ornaghi, and Antoniotti (2007). The coding procedure was as follows. First, two coders read the narratives and independently coded the texts on the basis of eight categories (Table 1 shows the eight categories, with an example for each drawn from the transcripts). Then, they compared their coding and discussed any differences in attributions with a third researcher, until full inter-rater agreement was reached. A special comment is required for the category “Being unjustly blamed for something by somebody” used in coding the guilt episodes of Italian children. This category applies to texts where the child described an episode in which they got blamed for something that somebody else had done (for instance: “My brother pushed me and my mother said it was my fault”). This category is clearly different in nature to the other guilt categories, and brings out the distinction between heteronymous and autonomous moral thinking, alluded to in Piaget’s theory of moral development. We felt that it was useful to include this

TABLE 1
Coding for antecedents of guilt

<i>Category</i>	<i>Example</i>
Treating somebody badly	I felt guilty when I stood up my best friend (female, 15.4 years old)
Disappointing somebody/betraying their trust	Two years ago I felt guilty because I was unfaithful (male, 15 years old)
Beating somebody	Last year my sister made me very angry and I slapped her on the face, then I felt guilty (female, 9.4 years old)
Damaging something	I felt guilty when I broke my brother's favourite toy (male, 9 years old)
Breaking rules (e.g., stealing, lying, disobeying)	I felt guilty when my friends and I stole a toy from a shopping centre (male, 14 years old)
Being unjustly blamed by somebody for something	I felt guilty when Daddy blamed me instead of my sister (female, 9 years old)
Doing or saying something that leads to negative consequences for other people	One time my brother spilt all the milk on the floor and Mum blamed me, but it was my brother who did it (female, 10 years old)
Inaction	I felt guilty when I didn't stand up for my friend, even though I knew he was innocent (male, 15.4 years old)

category in our analysis in order to determine whether its use varied in relation to age and/or gender.

Coding mentalization of guilt. An analysis of mental states language was carried out on 240 transcripts. It included terms from different categories: perception, volition, emotion (positive and negative), cognition and morality (see Table 2). As discussed above, these categories are very different from each other in terms of complexity and the developmental age at which they are acquired and understood (Bartsch & Wellman, 1995).

The chosen categories of "perception", "volition", "positive emotion", "negative emotion", "cognition", and "morality" replicate exactly those used by authors sharing the perspective that analysis of mental states language is a valuable tool for the study of mentalization (Fivush & Baker-Ward, 2005; Lecce & Pagnin, 2007). Again, two coders read the narratives and independently coded the mental states language into four categories: volition, emotion, cognition and moral judgement. Table 3 provides representative examples of the inner state talk used to mentalize guilt, for

TABLE 2
Classification of mental-state lexicon categories

<i>Categories of mental state terms</i>	<i>Examples</i>
Perception	See, hear, watch, observe, pay attention, feel warm/cold/tired, perceive
Volition	Want, wish, prefer, grant (a wish), insist, succeed in, try to, be able to, be good at, mean to
Positive emotion	Love, get fond of, make friends with, make up with, have fun, get excited, like, feel proud, be fond of, feel cheerful/happy/content/satisfied
Negative emotion	Be afraid, hate, detest, get angry, be ashamed, feel guilty, be worried, feel hurt, feel sad/terrified/unhappy
Cognition	Think, know, believe, wonder, explain, guess, figure out, be curious, think up, reflect, deceive, lie, discover, understand
Morality	Admire, take advantage of, make fun of, have to or be obliged to, be forced to, be sorry, forgive, be able or allowed to, make fun of, laugh at, respect, make a sacrifice, be good/bad

Sources: Bretherton & Beegley, 1982; Camaioni et al., 1998; Lecce & Pagnin, 2007.

TABLE 3
Coding for mentalization of guilt

<i>Category</i>	<i>Example</i>
Volition	Feeling the need to say sorry Wanting to make amends
Emotion	Feeling remorse Feeling regret Feeling sorry Disappointing someone Feeling bad (inside) Feeling empty inside Having a weight on your mind Feeling uncomfortable Feeling bothered by something Feeling [emotion]
Cognition	Thinking, reasoning, reckoning, knowing that you have done something Realizing something Feeling responsible
Moral judgement	Being sorry for having done something Having a guilty conscience

each of the research categories. The two judges compared their coding and discussed any differences in attributions with a third researcher, until full inter-rater agreement was reached.

RESULTS

For both types of coding and analysis (antecedents and mentalization), the results are presented first for the whole sample, and then as a function of age and gender, comparing children with adolescents and males with females, respectively. The chi-square test was applied to the antecedent coding categories identified via the content analysis, and the adjusted standardized residuals were analysed. With regard to the mental state language produced by participants, the absolute data set was converted into percentage frequencies and an analysis of variance (ANOVA) was applied.

Antecedents of guilt

Each participant wrote an account of a guilt experience, from which a situational antecedent was drawn via the content analysis procedure outlined. Therefore the percentages reported are in reference to a total number of 240 antecedents (Figure 1). The most frequent antecedents of guilt were *treating somebody badly* (22.6%), *doing or saying something that leads to negative consequences for other people* (20.9%), *beating somebody* (16.3%), *disappointing somebody/betraying their trust* (12.9%), *breaking rules* (12.1%) and *damaging something* (8.4%), followed by less common categories such as *inaction* (4.2%) and *being blamed for something by somebody* (2.5%).

Figures 2 and 3 show the frequency distribution of the categories for children ($n=120$) and adolescents ($n=120$), respectively, in order to

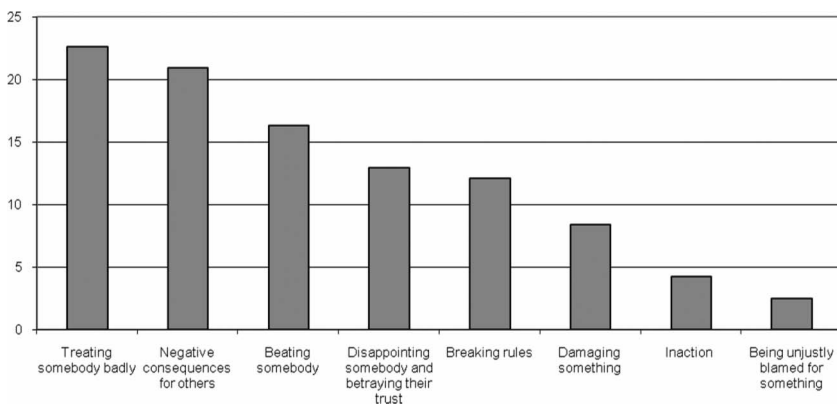


Figure 1. Frequency distribution (in percentages) of guilt antecedents for the entire sample ($N=240$).

illustrate the percentages of the different antecedents in each age group, and to bring out the differences in distribution occurring as a function of age (see also Table 4).

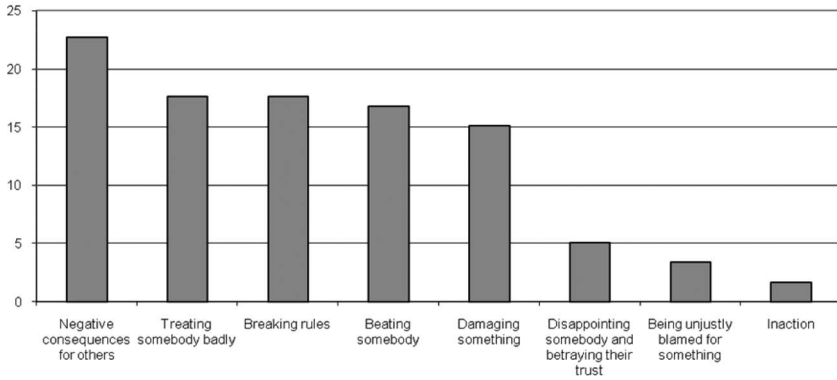


Figure 2. Frequency distribution (in percentages) of guilt antecedents for children (N=120).

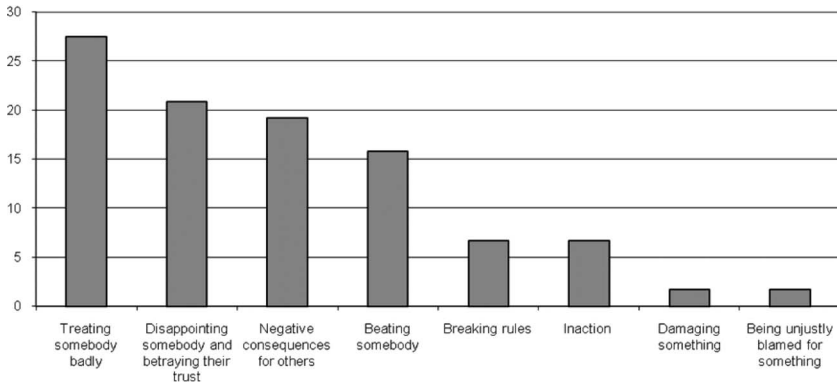


Figure 3. Frequency distribution (in percentages) of guilt antecedents for adolescents (N=120).

TABLE 4
Distribution of the number of instances by category of mental states and by age

	<i>Volition</i>	<i>Emotion</i>	<i>Cognition</i>	<i>Moral judgement</i>	<i>Total</i>
Children	1	25	9	5	39
Adolescents	5	53	45	28	132
Total	6	78	54	33	171

Age-group comparison. Significant differences were found between children and adolescents (see Figure 4) in the frequency distribution of guilt antecedents ($\chi^2 = 26$, $df = 7$, $p = .001$). In particular, *damaging something*, *breaking rules* and *being blamed for* featured more commonly in the children's episodes, whereas *disappointing somebody/betraying their trust* and *inaction* categories were more frequent in the adolescent narratives.

The significance of these differences was further tested by examining the adjusted standardized residuals for the data set. This analysis showed that *damaging something* was significantly more frequent in children ($n = 18$ vs. 2; adjusted standardized residual = 3.8) as was *breaking rules* ($n = 21$ vs. 8; adjusted standardized residual = 2.6), while the significantly most frequent categories among adolescents were *disappointing somebody* ($n = 11$ vs. 2; adjusted standardized residual = 2.6), *betraying someone's trust* ($n = 14$ vs. 4; adjusted standardized residual = 2.4) and *inaction* ($n = 9$ vs. 2; adjusted standardized residual = 2).

Gender comparison. No significant differences were found for guilt as a function of gender in the overall sample. However, gender difference within the adolescent group ($N = 120$) was significant ($\chi^2 = 17.5$, $df = 7$, $p = .02$). Analysis of the adjusted standardized residuals showed the categories in which significant variation occurred. Adolescent males reported more episodes categorized as *beating somebody* ($n = 13$ vs. 6; adjusted standardized residual = 2.6), while adolescent females reported more episodes in the category *treating somebody badly* ($n = 26$ vs. 7; adjusted standardized residual = 2.8), as shown in Figure 5. The category "*being unjustly blamed for*" only contained two antecedents from accounts of guilt episodes produced by female adolescents.

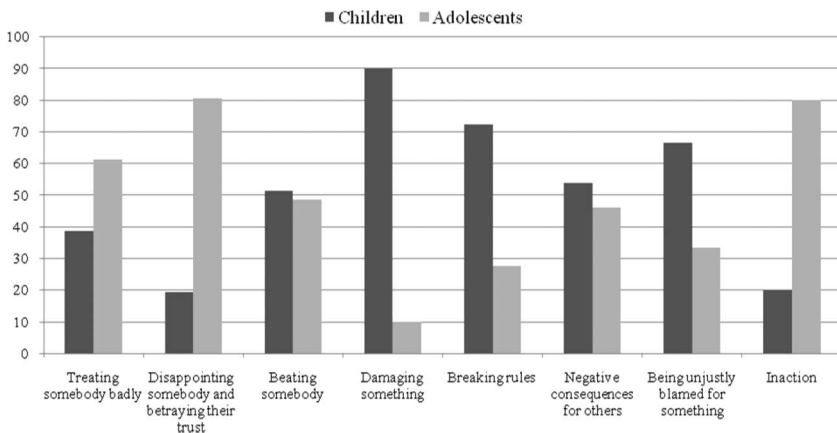


Figure 4. Frequency distribution of guilt antecedents as a function of age ($N = 240$).

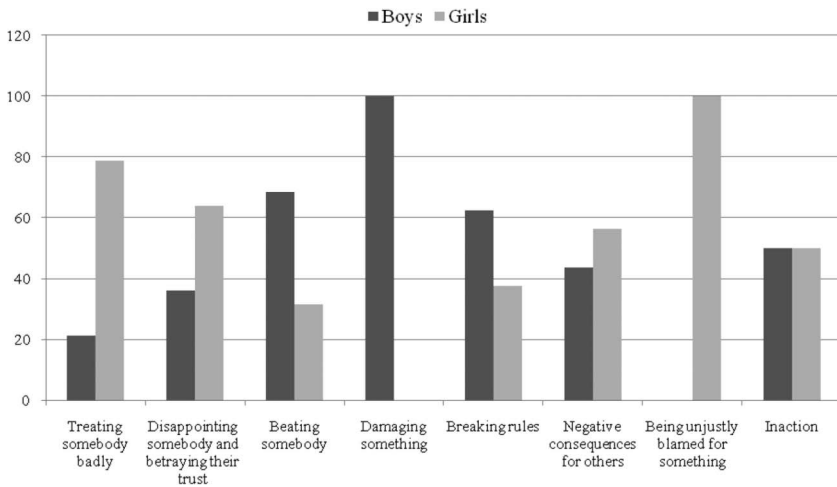


Figure 5. Frequency distribution as a function of gender in the adolescent group (N = 120).

Mentalization of guilt

The mental states language used to mentalize the emotion of guilt was broken down into the categories of volition, emotional, cognitive and moral terms. In the overall sample (240 texts) the distribution of the absolute number of instances by category and by age was as follows (see Table 4).

Overall linguistic production was significantly lower in the children’s texts compared to those of the adolescents ($p = .0001$) and consequently, production of mental state terms was also lower. Specifically, only 16.6% of the volition terms were produced by the children compared with 83.4% by the adolescents, while 32% of the emotional terms came from the children and 68% from the adolescents. In addition, 16.7% of cognitive terms were used by the children and 83.3% by the adolescents, while with regard to moral judgement terminology, only 15.1% was produced by the children and 84.9% by the adolescents. Use of volition terms to mentalize guilt was marginal. The mental states language used was therefore mainly made up of emotional, cognitive and moral terms, with frequency of use decreasing as the type of term increased in complexity, but increasing as a function of age.

Given the difference in the overall linguistic production of children and adolescents, before carrying out further statistical analyses, the absolute frequency values of the mental state terms were converted into percentage frequencies, by dividing them by the number of words in each text and multiplying by 100. The percentages were then converted into arcsine values, in order to obtain normalized distribution.

Age-group comparison. Significant differences were found between children and adolescents in the use of mental states language. Not only did the older participants use significantly more mental states language overall ($F=86.5$, $df=1$, $p=.0001$), but comparing the different types of lexicon as a function of age, statistically significant differences were found for all types of language. Specifically, the results of the ANOVA for volition terms were $F=6$, $df=1$, $p=.013$; for emotional terms, $F=11$, $df=1$, $p=.001$; for cognitive terms, $F=31.7$, $df=1$, $p=.0001$, and for moral terms, $F=19.9$, $df=1$, $p=.0001$.

Gender comparison. No differences were found for guilt mentalization as a function of gender in the overall sample although a tendency towards statistical significance emerged for use of cognitive terms ($p=.07$), which was greater in females. The gender comparisons carried out for each of the age groups separately also confirmed that there were no significant differences.

DISCUSSION

This study aimed to investigate guilt in children and adolescents, providing a comparison that has featured very little in the literature to date. In addition, it extended the research focus to include mentalization as well as antecedents of emotion, using an innovative data coding procedure based on mental state language production. Finally, instead of presenting the participants with set fictitious scenarios, this study involved asking them to re-evoked and narrate autobiographical episodes and to express what feeling guilty meant for them.

In previous studies where data was collected using a narrative approach, guilt was found to vary on the three main dimensions of “moral wrong”, “damaging something” and “disappointing somebody/betraying their trust” (Castelfranchi et al., 1994; Olthof et al., 2004; Williams & Bybee, 1994). In the current study, participants generally reported numerous episodes relating to their own behaviours and actions, such as *beating someone* and *treating someone badly*; however, part of the sample, especially in the older age group, mentioned guilt about *inaction* and *neglect of responsibilities towards others*.

As predicted, the statistical analyses showed that children more frequently report episodes of guilt relating to actions that either cause damage or go against rules, moral norms and conventions (e.g., *damaging something*), whereas adolescents focus more on the consequences of their actions for other people (e.g., *treating somebody badly* or *disappointing somebody/betraying their trust*).

The three main dimensions referred to above from the literature on antecedents of guilt therefore vary in frequency according to the cognitive

and moral development of the participants. For example, children wrote about episodes such as: "I felt guilty when I broke my mother's flowerpot and then she got angry at me" (male, 9 years old), which belong to the category "*damaging something*"; or, episodes such as: "My mother told me not to go down to the parking lot on my bike because it's dangerous, but I went down anyhow with my friend, and then a man passed by in his car and scolded us and shouted very loudly at us" (male, 10 years old), which belong to the dimension "*moral wrong*". In contrast, adolescents reported events such as: "I felt guilty when I broke my promise to my friend not to give away her secret" (female, 14 years old) belonging to the third dimension referred to earlier, in which interpersonal aspects come to the fore.

The category *being blamed for something by somebody* is a special case, since it involves being unfairly blamed for the misdeeds of others (e.g., "... one time my sister spilled all the orange juice on the floor and our daddy blamed me, but it was my sister who did it"). This young girl has a correct notion of the kind of episode associated with guilt (in a general sense, "doing something wrong"), but in her short text she emphasises the unjust attribution rather than the personal feeling of guilt. This category only features in a tiny number of the adolescent narratives. From a developmental point of view, this means that while some 9- to 10-year-old children (similarly to many younger children) may still describe guilt as an emotional experience arising from a mistaken attribution of blame by an adult figure (a sort of frustrating experience producing anger and related feelings), adolescent reports of personal episodes almost invariably frame guilt as an internal, subjective experience.

Our chosen method of content analysis enabled us to confirm that in the course of developmental change situational antecedents of guilt shift in focus from externalizing behaviours to the interpersonal implications of actions (Tangney, 1995). Corroborating earlier findings on the development of emotional competence (Pons et al., 2004), we found that reflective emotional competence increased in adolescence. The teenagers in our study displayed a deeper and higher level of conceptualizing events. For instance, a reference to "inaction" implies that the person must have the ability to conceptualize an event that might have occurred but did not, an ability displayed only by the adolescents, as in the following example:

Every evening we would go to the hospital to visit my granny who was ill. But that particular evening my friend from next door had come to visit me, and when my parents asked me what I wanted to do, that is whether I wanted to go with them to visit my grandmother, I said that I would go the next day instead. I stayed at home to play and practise putting on make-up with my friend. The next day when I got home from school, I found my mother in tears, she told me that my granny was dead. In that moment I felt bad, and guilty, because she had gone away forever and I hadn't got to say goodbye to her (female, 15 years old).

We found more marked gender differences in the adolescent group than in the total sample or in the child group, where differences were minimal. In the older group, the effect of what Gilligan (1982) called “gender socialization” produced autobiographical narratives that reflect female care and concern for others: “I felt bad when I teased my sister and I felt I needed to say sorry and make up with her” (female, 14 years old); whereas males were more worried about rules: “I felt guilty when I lied to my friend and I didn’t tell him the truth about the girl he likes” (male, 14.4 years old). Thus it is significant that gender difference with regard to the antecedents of guilt emerges at the life-cycle stage in which the emphasis on caring and nurturing may begin to impact on behaviour, leading females to sometimes take responsibility for others at the expense of their own needs (Gilligan, 1982; Silfver, 2007). The gender differences identified in adolescent antecedents of guilt also appear to be related to the distinction between intimacy and focus on internal states on the one hand, versus action readiness and social visibility on the other—a distinction that is most evident at this stage of development (Rosenblum & Lewis, 2003).

Supplementing our findings about the antecedents, our analysis of the ability to mentalize guilt showed a significant age effect. Specifically, not only does the quantity of mental states language used by the participants to explain what it means for them to “feel guilty” increase with age, but the difference is more marked depending on the exact type of language used, as a function of semantic complexity. For example, the difference between children and adolescents in the use of “emotional” mental language is less than the difference in the use of “cognitive” or “moral” language, which are known from the literature to be acquired and used later on in the course of development (Bartsch & Wellman, 1995).

An example of mentalization in children, with a high emotional language content, is the following: “For me feeling guilty is really horrible and really scary, because afterwards the person will find you out and be angry with you” (female, 9 years old). The meaning of guilt is explained here in terms of other emotions, emphasizing the immediate negative consequences in the here and now, with no attempt to abstract or conceptualize the guilt experience. The same may be said of the following example: “Feeling guilty means feeling bad, uncomfortable” (male, 10 years old), which only contains a reference to a negative psychological state, or of the following: “For me feeling guilty means accusing a person of something they didn’t do” (female, 10 years old), in which the mentalization refers to a particular case of misconduct.

In order to illustrate the difference between children and teenagers, we quote the following two examples from the adolescent texts. A 15-year-old boy wrote: “Feeling guilty means doing something that brings about a negative situation, and I start feeling guilty for having made this happen, so

I start to reflect on what I did so as to understand why I did it". A 14-year-old girl stated that: "Feeling guilty for me is having the impression that I did something that it would have been better not to do, something that I felt drawn to doing, even though I knew it was wrong. Then your conscience comes into play, which for me is the thing that really makes you understand the mistake that you made. In short, you realize you've made a mistake only after you've made it!" The meaning of guilt goes beyond the specific behaviour and its immediate consequences to involve processes of reflection (*it would have been better not to have done that*) and self-evaluation (*your conscience comes into play*), which require formal operational thinking.

This higher level of metacognitive reflection and abstraction can also be found in the following example from an adolescent male: "A sense of guilt is a feeling coming from within the person themselves and may be caused by the fact that the person realizes they haven't behaved as they should" (male, 15 years old).

Our analysis of the ability to mentalize guilt did not identify any significant gender differences, apart from a tendency for females to use more cognitive terms than males. Cognitive language, compared with the other categories of mental state lexicon, is in fact the category which best represents the effort to mentalize emotion.

There are also some limitations of this research which need to be addressed. One caveat regards having collected data of a personal nature (autobiographical narratives) in the context of school. Although the researchers guaranteed anonymity to the participants, the type of episodes recounted may have been influenced by the fear that they would be read by significant adults such as teachers and parents. In this sense, according to Baumeister, Stillwell, and Wotman (1990), the study of autobiographical narratives has both strengths and weaknesses. Narratives can provide insight into how people construct their meaningful experiences; however, it is possible that participants fail to report their thoughts, emotions and behaviour or may even deliberately lie.

A second limitation regards the use of only one research instrument; the SRE could have been supplemented by a qualitative instrument such as a self-rating questionnaire measuring the participants' level of empathy (Feshbach et al., 1991; Hoffman, 2000), in order to obtain more complete data regarding both antecedents and self-awareness and the ability to mentalize emotion.

Despite these limitations, the research design proved effective in meeting the objectives of the study. Our findings confirm what had already partly emerged from the literature on the antecedents of moral emotions during development—especially in the English-speaking world—supporting earlier findings that in the transition from childhood to adolescence a major change takes place in the type of antecedents of guilt, which in turn reflects a new

ability to represent and reflect on the experience of “feeling guilty”. This change involves a shift in the focus of attention, which moves from externalizing behaviour to internal thoughts and intentions. Moreover, this progression may continue during late adolescence and beyond, as indicated by the initial results of a study currently in progress with older age groups than those reported on here.

Manuscript received 10 March 2009

Revised manuscript accepted 26 April 2010

First published online 28 June 2010

REFERENCES

- Adams, G. R., & Berzonsky, M. D. (2003). *Blackwell handbook of adolescence*. Oxford, UK: Blackwell Publishing.
- Antonietti, C., Grazzani Gavazzi, I., & Ornaghi, V. (2006). Mentalizing emotions in adolescence: Guilt and shame. In O. Liverta Sempio, A. Marchetti, & A. Valle (Eds.), *Intersubjectivity, metacognition and theory of mind* (pp. 117–118). Milan: ISU.
- Astington, J. W., & Baird, J. A. (2005). *Why language matters for theory of mind*. Oxford, UK: Oxford University Press.
- Bartsch, K., & Wellman, H. M. (1995). *Children talk about the mind*. New York: Oxford University Press.
- Baumeister, R. F., Stillwell, A. M., & Heatherton, T. F. (1995). Interpersonal aspects of guilt: Evidence from narrative studies. In J. P. Tangney & K. W. Fischer (Eds.), *Self-conscious emotions: The psychology of shame, guilt, embarrassment, and pride* (pp. 255–273). New York: Guilford Press.
- Baumeister, R. F., Stillwell, A. M., & Wotman, S. R. (1990). Victim and perpetrator accounts of interpersonal conflict: Autobiographical narratives about anger. *Journal of Personality and Social Psychology*, 59, 994–1005.
- Blasi, A. (2004). Moral functioning: Moral understanding and personality. In D. K. Lapsley & D. Narvaez (Eds.), *Moral development, self, and identity* (pp. 335–348). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Bretherton, I., & Beegley, M. (1982). Talking about internal states: The acquisition of an explicit theory of mind. *Developmental Psychology*, 18(6), 906–921.
- Byrnes, J. P. (2003). Cognitive development during adolescence. In G. R. Adams & M. D. Berzonsky (Eds.), *Blackwell handbook of adolescence* (pp. 227–246). Oxford, UK: Blackwell Publishing.
- Camaioni, L., Longobardi, E., & Bellagamba, F. (1998). Evoluzione dei termini mentali nelle storie di fantasia scritte dai bambini in età prescolare. *Età evolutiva*, 60, 20–29.
- Camodeca, M., & Menesini, E. (2007). Approccio contestuale al senso di colpa e alla vergogna: ruolo degli antecedenti e comportamenti correlati [Contextual approach to guilt and shame: The role of antecedents and related behaviours]. *Età evolutiva*, 70–77.
- Castelfranchi, C., D’Amico, S., & Poggi, I. (1994). *Sensi di colpa. Aspetti cognitivi, emotivi e relazionali* [Guilt: Cognitive, emotional and relational aspects]. Firenze, Italy: Giunti.
- Dunn, J., & Brophy, M. (2005). Communication, relationships, and individual differences in children’s understanding of the mind. In J. W. Astington & J. A. Baird (Eds.), *Why language matters for theory of mind* (pp. 50–69). Oxford, UK: Oxford University Press.

- Ferguson, T. J., & Stegge, H. (1995). Emotional states and traits in children: The case of guilt and shame. In J. P. Tangney & K. W. Fischer (Eds.), *Self-conscious emotions: The psychology of shame, guilt, embarrassment, and pride* (pp. 174–197). New York: Guilford Press.
- Ferguson, T. J., Stegge, H., & Damhuis, I. (1991). Children's understanding of guilt and shame. *Child Development*, 62, 827–839.
- Feshbach, N., Caprara, G. V., Lo Coco, A., Pastorelli, C., Manna, G., & Menzes, J. (1991). *Empathy and its correlates*. Eleventh Biennial Meeting of the International Society for the Study of Behavioural Development, Minneapolis.
- Fivush, R. (2008). Remembering and reminiscing: How individual lives are constructed in family narratives. *Memory Studies*, 1, 49–58.
- Fivush, R., & Baker-Ward, L. (2005). The search for meaning: Developmental perspectives on internal states language in autobiographical memory. *Journal of Cognition and Development*, 6(4), 455–462.
- Fivush, R., Marin, K., Crawford, M., Reynolds, M., & Brewin, C. R. (2007). Children's narratives and well-being. *Cognition and Emotion*, 21, 1414–1434.
- Fonagy, P., & Target, M. (1997). Attachment and reflective function: Their role in self-organization. *Development and Psychopathology*, 9, 679–700.
- Gilligan, C. (1982). *In a different voice: Psychological theory and women's development*. Cambridge, MA: Harvard University Press.
- Grazzani Gavazzi, I., & Ornaghi, V. (2007). *La narrazione delle emozioni in adolescenza. Contributi di ricerca e implicazioni educative* [Narratives of emotions in adolescence: Research contributions and educational implications]. Milan: McGraw-Hill.
- Grazzani Gavazzi, I., Ornaghi, V., & Antoniotti, C. (2007). Guilt and shame in children and adolescents: A narrative study on situational antecedents. In V. L. Zammuner & C. Galli (Eds.), *Proceedings. Studies on emotions* (pp. 127–130). Padova, Italy: CLEUP.
- Habermas, T., & Bluck, S. (2000). Getting a life: The emergence of the life story in adolescence. *Psychological Bulletin*, 126, 748–769.
- Haidt, J. (2003). The moral emotions. In R. J. Davidson, K. R. Scherer, & H. H. Goldsmith (Eds.), *Handbook of affective sciences* (pp. 852–870). Oxford, UK: Oxford University Press.
- Harris, P. L. (1989). *Children and emotion: The development of psychological understanding*. Oxford, UK: Oxford University Press.
- Harris, P. L. (2008). Children's understanding of emotion. In M. Lewis, J. M. Haviland-Jones, & L. B. Barrett (Eds.), *Handbook of emotion* (3rd ed., pp. 320–331). New York: Guilford Press.
- Hauser, M. (2006). *Moral minds*. New York: HarperCollins.
- Hoffman, M. (2000). *Empathy and moral development*. Cambridge, UK: Cambridge University Press.
- Kochanska, G., Gross, J. N., Lin, M., & Nichols, K. E. (2002). Guilt in young children: Development, determinants, and relations with a broader system of standards. *Child Development*, 73(2), 461–482.
- Kohlberg, L. (1984). *Essays on moral development. The psychology of moral development*. San Francisco: Harper & Row.
- Lecce, S., & Pagnin, A. (2007). *Il lessico psicologico*. Bologna, Italy: Il Mulino.
- Lewis, M. (2000). Self-conscious emotions: Embarrassment, pride, shame, and guilt. In M. Lewis & J. M. Haviland-Jones (Eds.), *Handbook of emotions* (pp. 563–573). New York: Guilford Press.
- Lewis, M. (2008a). The emergence of human emotions. In M. Lewis, J. M. Haviland-Jones, & L. B. Barrett (Eds.), *Handbook of emotion* (3rd ed., pp. 304–319). New York: Guilford Press.

- Lewis, M. (2008b). Self-conscious emotions: Embarrassment, pride, shame, and guilt. In M. Lewis, J. M. Haviland-Jones, & L. B. Barrett (Eds.), *Handbook of emotion* (3rd ed., pp. 742–756). New York: Guilford Press.
- Olson, D. R. (1994). *The world on paper*. Cambridge, UK: Cambridge University Press.
- Olthof, T., Ferguson, T. J., Bloemers, E., & Deij, M. (2004). Morality- and identity-related antecedents of children's guilt and shame attributions in events involving physical illness. *Cognition and Emotion, 18*(3), 383–404.
- Olthof, T., Schouten, A., Kuiper, H., Stegge, H., & Jennekens-Schinkel, J. (2000). Shame and guilt in children: Differential situational antecedents and experiential correlates. *British Journal of Developmental Psychology, 18*, 51–64.
- Piaget, J. (1932). *Le jugement morale chez l'enfant*. Paris: PUF.
- Pons, F., de Rosnay, M., Doudin, P. A., Harris, P. L., & Cuisinier, F. (2006). Emotion understanding as a reflective emotional competence: Between experiences and symbols. In F. Pons, M.-F. Daniel, L. Lafortune, P. A. Doudin, O. Albanese (Eds.), *Toward emotional competences* (pp. 19–38). Aalborg, Denmark: Aalborg University Press.
- Pons, F., Harris, P. L., & de Rosnay, M. (2004). Emotion comprehension between 3 and 11 years: Developmental periods and hierarchical organizations. *European Journal of Developmental Psychology, 1*(2), 127–152.
- Rosenblum, G. D., & Lewis, M. (2003). Emotional development in adolescence. In G. R. Adams & M. D. Berzonsky (Eds.), *Blackwell handbook of adolescence* (pp. 269–289). Oxford, UK: Blackwell Publishing.
- Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Coper, J. T., Golden, C. J., et al. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences, 25*, 167–177.
- Silfver, M. (2007). Coping with guilt and shame: A narrative approach. *The Journal of Moral Education, 36*(2), 169–183.
- Smetana, J. G., & Turiel, E. (2003). Moral development during adolescence. In G. R. Adams & M. D. Berzonsky (Eds.), *Blackwell handbook of adolescence* (pp. 247–268). Oxford, UK: Blackwell Publishing.
- Stein, N. L., & Glenn, C. G. (1979). An analysis of story comprehension in elementary school children. In R. Freedle (Ed.), *New directions in discourse processing* (pp. 53–119). Norwood, NJ: Ablex.
- Tangney, J. P. (1995). Recent advances in the empirical study of shame and guilt. *American Behavioral Scientist, 38*, 1132–1145.
- Tangney, J. P., Burggraf, S. A., & Wagner, P. E. (1995). Shame-proneness, guilt proneness, and psychological symptoms. In J. P. Tangney & K. W. Fischer (Eds.), *Self-conscious emotions: The psychology of shame, guilt, embarrassment, and pride* (pp. 343–367). New York: Guilford Press.
- Tangney, J. P., & Dearing, R. L. (2002). *Shame and guilt*. New York: Guilford Press.
- Tangney, J. P., & Fischer, K. W. (Eds.). (1995). *Self-conscious emotions: The psychology of shame, guilt, embarrassment, and pride*. New York: Guilford Press.
- Tangney, J. P., Stuewig, J., & Mashek, D. J. (2007). Moral emotions and moral behaviour. *Annual Review of Psychology, 58*, 345–372.
- Turiel, E. (2006). The development of morality. In N. Eisenberg, W. Damon, & R. M. Lerner (Eds.), *Handbook of child psychology* (pp. 789–857). Hoboken, NJ: Wiley.
- Williams, C., & Bybee, J. (1994). What do children feel guilty about? Developmental and gender differences. *Developmental Psychology, 30*, 617–623.
- Zahn-Waxler, C., Kochanska, G., Krupnick, J., & McKnew, D. (1990). Patterns of guilt in children of depressed and well mothers. *Developmental Psychology, 26*, 51–59.