

The Role of Maternal Emotional Validation and Invalidation on Children's Emotional
Awareness

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Abstract

Emotional awareness—that is, accurate emotional self-report—has been linked to positive well-being and mental health. However, it is still unclear how emotional awareness is socialized in young children. This observational study examined how a particular parenting communicative style—emotional validation versus emotional invalidation—was linked to children's (age 4–7 years) emotional awareness. *Emotional validation* was defined as accurately and nonjudgmentally referring to the emotion or the emotional perspective of the child. The relationship between maternal emotional validation/invalidation and children's awareness of their negative emotions was examined in 65 mother–child pairs while playing a game. In a multiple regression, significant predictors of children's emotional awareness were their mother's degree of emotional validation, the child's gender (girls more aware than boys), and their mother's degree of invalidation (negative predictor). These results suggest that children's accurate attention to their own emotion states—that is, their emotional awareness—may be shaped by their mother's use of emotional validation/invalidation.

Why are some children more aware of their emotions than others? In addition to possible genetic factors, socializing processes are likely to play an important role (Stegge & Meerum Terwogt, 2007). The question is important to answer because there is evidence that emotional awareness plays a role in the development of children's emotional and social competence (Fonagy, Gergely, Jurist, & Target, 2002; Smith, Hubbard, & Laurenceau, 2011) and in their mental health (Casey & Schlosser, 1994; Rieffe & De Rooij, 2012; Zeman, Shipman, & Suveg, 2002). However, children's emotional *awareness*—by which we mean their ability to accurately recognize and report their own emotions—has not had the same amount of research attention as their emotional *understanding*, and the factors specifically facilitating the development of emotional awareness in children are arguably still not well understood. The present study aims to further understanding in this area by looking at the effects of a specific aspect of parenting—the use of emotional validation (Ginott, 1965; Linehan, 1993)—on young children's (age 4–7 years) emotional awareness.

<TX> We chose to examine this age group because it is known that, by this age, children are able to use self-describing emotion words (e.g., Wellman, Harris, Banerjee, & Sinclair, 1995), but that there are quite wide variations in how well these reports match expressive and behavioral measures (Warren & Stifter, 2008). Furthermore, children of this age are young enough to be strongly influenced by ongoing parental emotional regulation (Slade, 2005)—while being old enough to verbalize their emotions—thus making them suitable for the investigation of the influence of maternal emotional validation on their emotional awareness.

The present research also aims to overcome two problems that have arguably hindered progress in this area—namely, (a) failures to clearly distinguish conceptually between children's emotional awareness and their emotional understanding, and (b) difficulties in measuring and operationalizing emotional awareness. We shall briefly address these questions before examining the literature on how parenting may affect children's emotional awareness.

*****Defining and Measuring Children's Emotional Awareness*

<TX-FL> Researchers have tended to focus more on children's (third-person) emotional understanding than their (first-person) emotional awareness and have often failed to distinguish clearly between them. Whereas *emotional awareness* refers specifically to one's ability to attend to one's *own* emotional state in such way that it can be reported (Lambie, 2009), *emotional understanding* refers to a much broader skill set including the ability to recognize and name emotions in others and understand the causes and consequences of emotions (Saarni, Campos, Camras, & Witherington, 2006). Emotional awareness is specifically first person—it is knowledge of one's own in-the-moment and episodic emotional states—whereas emotional understanding is more third-personal, general, and semantic. Although emotional awareness and emotional understanding are likely to be related (e.g., they both involve categorization of emotion), they are distinct operations, and some of their underlying processes are likely to be different. For example, introspective attention to one's own state right now is needed for emotional awareness, but many semantic aspects of emotional understanding (e.g., knowing which situations typically evoke sadness in people) do not require this.

<TX> This brings us to the second difficulty already mentioned, which is how to measure emotional awareness in children. There have been broadly four different ways of doing this: (a) use hypothetical emotional scenarios and ask children "How would you feel in this situation?", scoring the complexity of the answers (e.g., Levels of Emotional Awareness Scale for Children; Bajgar, Ciarrochi, Lane, & Deane, 2005); (b) ask children to report generally how good they are at identifying their emotions (e.g., the Emotion Awareness Questionnaire—sample question: "When I am upset, I do not know if I am sad, scared, or angry"—Rieffe et al., 2007); (c) induce emotions and ask children to report how they felt—for example, "How angry were you from 1 to 4?" (e.g., Smith et al., 2011); and (d) induce emotions and ask children to report how they felt, but judge this normatively against a behavioral measure—for example, degree of emotional awareness is the degree of convergence between self-report and facial

expression or other bodily expression (e.g., Casey, 1993; Strayer & Roberts, 1997; Warren & Stifter, 2008). The problem with methods a and b is that they involve meta-awareness of one's emotional awareness ability and are therefore one step removed from basic real-time emotional awareness.

The problem with method c is that it assumes that introspection is accurate and will not generate false positives (children overreporting emotions they do not have) or false negatives (children failing to report emotions they do have). The difficulty with measures that take self-report at face value is that they assume that the subject has good introspective attention, but having good introspective attention is precisely the factor that an *awareness* measure is trying to measure. As several researchers have noted, introspection may not be reliable (e.g., Jack & Shallice, 2001; Myers, 2010; Nisbett & Wilson, 1977).

For these reasons, we prefer measures that use method d, the convergence of self-report with another indicator of emotion state. This means that we take emotional awareness to be a normative and not a descriptive concept—namely, that it is relative to a standard and admits to degrees of more or less accuracy. In this normative usage, it is legitimate therefore to talk of *good* or *poor* emotional awareness.

Development of Children's Emotional Awareness

<TX-FL>Soon after they begin to talk, young children start referring to their own feeling states and, by 28 months (some argue even young as 12 months), children seem to be aware of their emotions such that they can describe single emotional states in themselves (Harris, 1989; Saarni, 1999). Evidence from natural language in young children in North America shows that by the age of 28 months most children have used labels and descriptive phrases to refer to their own emotional state—for example, “It’s dark, I’m scared,” “I not cry now,” and “Not happy, sad” (Bretherton & Beeghly, 1982; Bretherton, Fritz, Zahn-Waxler, & Ridgeway, 1986). The earliest emotion words used by English speakers include “happy,” “sad,” and “scared,” but self-ascriptions of “surprised,” “jealous,” and “embarrassed” are usually not used until about

age 4 years or later (Wellman et al., 1995), and full meta-cognitive awareness of emotions (i.e., explicitly mentioning the role of thoughts and feelings in generating emotions) may not develop until as late as age 10 (Harris, Olthof, & Meerum Terwogt, 1981).

<TX> With regard to age effects in early to middle childhood on accuracy of emotional awareness, surprisingly most studies have found no age effects (e.g., Casey, 1993; Strayer & Roberts, 1997) or even that younger children show better convergence between expression and report than do older children (e.g., Eisenberg, Fabes, Schaller, & Miller, 1989). For example, Strayer and Roberts (1997), who looked at convergence between reported and expressed emotions in 5-, 9-, and 13-year-olds and found no increase with age, speculated that increasing insight into one's own emotions with age (if such insight occurs) may be offset by increasing social pressures to minimize emotions or conform to social expectations as children grow older. This was supported in a study of 7- to 12-year-olds by the finding that older children are more likely to inhibit anger than are younger children (Hourigan, Goodman, & Southam-Gerow, 2011). Indeed, convergence rates between expression and report in adults are not necessarily higher than they are in children. For example a study using adults by Bonanno and Keltner (2004) yielded correlations between expression and report of $r = .25$ for sadness and $r = .44$ for anger, which compares with $r = .40$ for sadness and $r = .13$ for anger in preschool children in a similar convergence study by Warren and Stifter (2008). We should not assume that online emotional awareness necessarily increases steadily from preschool to adolescence and certainly not that it reaches a ceiling in adulthood. As Warren and Stifter (2008) write, "Reporting on one's felt emotion is a difficult task for adults and children alike" (p. 254).

With regard to gender effects on emotional awareness, most studies show a clear advantage for girls. For example, in the Casey (1993) study, girls were more accurate when reporting on their emotion display than were boys. Among the girls, 65% accurately described their facial expressions, whereas only 31% of the boys accurately described theirs. Eisenberg, Fabes, Miller, et al. (1989) found that second-grade girls (6–7 years) showed greater

convergence between self-reported and expressed sadness than did second-grade boys. Strayer and Roberts (1997) also found that 5- to 13-year-old girls were more accurate than boys in reporting their emotions. Exceptions are studies by Warren and Stifter (2008), which found no gender differences in reporting accuracy in preschool children, and by Anastassiou-Hadjicharalambous and Warden (2007), which found in a sample of 8- to 10-year-olds that boys were more accurate than girls.

*****The Role of Parenting in Children's Emotional Awareness*

<TX-FL>Although there has been much research on how parents socialize their children's emotions (for reviews, see Zahn-Waxler, 2010; Zeman, Cassano, & Adrian, 2013), there has been little research on how such socialization affects children's subsequent ability to report their own emotions accurately. Exceptions are the studies by Strayer and Roberts (2004) and Warren and Stifter (2008). Strayer and Roberts (2004) did not directly observe parents' behavior but found that children who reported greater parental rejection and physical discipline were less accurate when reporting their emotion facial display. Also parents' own reports of lower levels of warmth were related to lower levels of facial-verbal convergence in their children. Warren and Stifter (2008) measured mothers' emotion-related socialization behaviors (which included mothers' self-reports on their responses to their child's emotions, as well as an observational measure of their emotion talk with their child) and found that supportive emotion-related socialization behaviors were predictive of their children's higher self-awareness of happiness. However, Warren and Stifter did not directly measure mothers' responses to their children's in vivo emotions, so there is currently very limited direct observational evidence that particular types of parenting behavior increase children's emotional awareness.

<C> *The role of parental emotional validation*

A strong candidate for a parenting characteristic that may facilitate children's emotional awareness is emotional validation (Linehan, 1993). By *emotional validation*, we mean the

nonjudgmental reference to and acceptance of another person's emotion or emotional perspective (see also Fruzzetti & Iverson, 2004). The concept of validating emotions in a therapeutic context was first introduced by Carl Rogers (1961) and developed in parenting theory by Haim Ginott (1965), although similar notions have long existed in Buddhist approaches to listening (Nhat Hanh, 1998). John Gottman (1993) has discussed *validating couples* in marital therapy and uses a related but distinct concept of *emotion coaching* in parenting training (Gottman, Katz, and Hooven, 1996).

<TX> The key aspects of successful emotional validation are that another person's emotion or emotional perspective is referred to (a) accurately and (b) nonjudgmentally. For example, statements such as these, said in a calm tone: "It looks like you are very angry"; "It sounds as if you hate him very much"; "It seems as if you are disgusted with the whole situation" (Ginott, 1965, p. 28). It is the person's emotion *experience* that is accepted, not necessarily their behavior: for example (said to a child), "I can see how angry you are at your brother. Tell him what you want with your words not your fists" (Faber & Mazlish, 2002, p. 27). The flipside of this is *emotional invalidation*, in which the other's emotion is rejected, dismissed, delegitimized, or incorrectly labeled—for example, saying, "Don't be angry" or "You're not scared," or simply ignoring the child's emotions.

Several theorists have hypothesized that a high level of parental emotional validation in early childhood contributes to good emotional awareness, whereas a high degree of emotional invalidation leads to poor emotional awareness (e.g., Fruzzetti & Iverson, 2004; Linehan, 1993). The mechanism underlying this link would presumably be a form of shaping, and several theorists suggest that in part it is the child's introspective attention that is being shaped. Some theorists have proposed that categorical emotions are not straightforwardly introspectable (Barrett, 2006; Frijda, 1986) and thus that learning to report them requires that one's attention be guided and shaped towards relevant features such as relevant thoughts and bodily sensations (Lambie & Marcel, 2002), or that other people reflect one's emotions back in

a way that enables one to notice one's own emotion state (Fonagy et al., 2002; Gergely & Watson, 1996).

However, to date, there is no direct evidence for the link between validation and awareness. There are data linking emotional validation with adaptive emotion regulation in children and adolescents (Shipman et al., 2007), and with emotional reactivity in children (Shenk & Fruzzetti, 2011), but the direct link with validation and awareness has not, to our knowledge, been explicitly demonstrated.

The Current Study

<TX-FL>The current study directly examined the link between parental emotional validation/invalidation and child awareness/unawareness of emotion in a natural (or seminatural) context. Since very few fathers signed up to the study, we focused only on maternal validation. With regard to measuring these constructs, we developed a new observational measure of emotional validation/invalidation based on the key conceptual features of nonjudgmental accurate reference to the emotion or emotional perspective of the other (*emotional validation*) versus judgmental, dismissive, or inaccurate reference to the emotion or emotional perspective of the other (*emotional invalidation*).¹ We measured accuracy of emotional awareness by using the convergence between the children's expression of emotion and their subsequent verbal report of it (Casey, 1993; Strayer & Roberts, 2004).

<TX> To test the link between real-time maternal emotional validation and children's subsequent emotional awareness, we needed a situation in which children express real emotions while interacting with their mother, but over which we could control most of the overt situational factors. We chose a structured game to elicit emotions (Snakes and Ladders)—one in which the outcome was controlled (it was played on a computer with preset dice rolls programmed in) and in which the mother's interactions with the child could be measured (via video recordings). Finally, children could be interviewed immediately after the game and asked about their emotions at set "anchor points"—for example, losing the first

game, or going down a long snake—thus enabling us to match up their reported emotions with the emotions they expressed while we kept the situational factors constant. The specific hypotheses:

1. Higher maternal emotional validation expressed during the game will predict higher child emotional awareness (i.e., greater accuracy in children's emotional self-report).
2. Higher maternal emotional invalidation expressed during the game will predict lower child emotional awareness (i.e., lower accuracy in children's emotional self-report).
3. There will be a gender effect such that girls will be validated more than boys and will have greater emotional awareness than boys.

A further question was whether the effects described in Hypotheses 1–3 would be independent of the child's age, verbal IQ, and (third-person) emotional recognition ability.

Method

Participants

A total of 65 mother–child dyads participated in this study, which was part of a series of studies forming a Ph.D. project on emotional validation. The children (33 boys and 32 girls) were 4–7 years old, with a mean age of 70.09 months ($SD = 12.10$) or 5 years 10 months).

Children were predominately recruited from primary schools in and around Cambridge, England, with 8 children recruited from Wales. Children's ethnicities were 83% White British, 12% mixed British parentage, and 5% Asian. Mothers' age ranged 23–53 years. Family annual income ranged £14,000–£120,000 (median = £45,000; £1 = ca. \$1.45). Mothers' highest education levels were as follows: 47% had a postgraduate education (e.g., master's, doctorate), 28% had an undergraduate degree (i.e., college education), 20% had A levels or equivalent (i.e., high school education), and 5% had GCSE (General Certificate of Secondary Education, test taken at age 16) as their highest level of education.

Procedure

<TX-FL>Data were collected during a 1-hour home visit. Families were paid £6 for their time, and the child received a small toy and a sticker as a token of appreciation. All procedures were reviewed and approved by the Anglia Ruskin University ethics board. Parents and children were fully informed about the study procedures before giving their consent.

<TX> Prior to the researchers' arrival, mother and child were informed that they were to play a simple computer game (Snakes and Ladders) while being videotaped, followed by a brief postgame interview regarding the child's emotions. Mothers were not told that they were explicitly under observation, although they were aware that they were being video recorded, and neither mothers nor children were told that the game was preset. Upon arrival, the child was invited to help the researcher to set up the camera and start the computer to encourage the child to relax in the researcher's presence. The mother and child were told that the person who wins two of the three games would receive a prize (a toy of their choice), and they got a quick look at the prize selection before they were told about the order of events and taught how to play the game. To avoid the distorting effects of observer presence, the researcher left the room when the game started. The three games took 15–20 minutes to complete in total.

The researcher reentered the room after the three games and first conducted the emotional awareness interview with the child, followed by the emotional recognition test, and finally the verbal ability measure. Immediately before the emotional awareness interview, the researcher checked whether the child remembered what had just happened in the three games. This was memory check protocol: "I want to ask what you remember about the games we just played. Who won the first game? Who won the second game? Who won the third game? Do you remember going down two long snakes? Was it the first, second, or third game this happened?" After this, the child was asked the emotional awareness questions (see the section *Children's first-person emotional awareness*). The mother completed a series of demographic questions and a parenting questionnaire while the child was being interviewed. The mother was in the same room as the child when the child was being interviewed. Lastly, the parent and

child were fully debriefed, and the child was awarded the prize and a certificate. In the debrief, both mother and child were told that the game was rigged, and the mother was given a brief explanation about emotional validation.

Materials

<C> *Snakes and Ladders game.* A computerized version of the traditional board game Snakes and Ladders (aka Chutes and Ladders) was used both to induce the children's emotions and to engage each mother into interacting with her child. In the traditional game, players take it in turns to throw a die and then move their counter on a board with the aim being to reach the winning square, and in which landing on ladders moves you nearer to the goal, whereas landing on snakes takes you further away. For this project, a computerized version of Snakes and Ladders was specifically developed in which the board was represented on the computer screen and mother and child took turns to "roll" the visually represented dice by pressing a computer key. The game was played on a laptop with an inbuilt video camera so that both mother and child could be recorded. The dice rolls for three different games were preprogrammed into the computer so that the child would lose the first game, win the second game, and win the third game. In the final game, the child would be close to winning, then go down two long snakes in a row, be on the verge of losing, but win in the end. All children thus experienced the same three games (in terms of the dice rolls). Three anchor points across the three games were used to standardize the emotional awareness interview: (a) going down the long snake in the first game, (b) losing the first game, and (c) going down two snakes in a row in the last game. Each individual game took about 5–7 minutes to play.

<C> *Children's (first-person) emotional awareness.* Emotional awareness (indexed by the convergence between observed and self-reported emotions) was assessed by using children's video-recorded facial expressions and an immediate postgame interview. The interview asked the child to identify their emotion at three separate anchor points across the three games: "How did you feel when you went down the long snake in the first game?", "How did you feel when

you lost the first game?”, and “How did you feel when you went down two snakes in the last game?” Emotional awareness was scored by the convergence between the child’s video-recorded facial/postural/vocal expressions at the time of the event and their later verbal interview responses. For example, if their expression was coded as “angry” when they lost the first game, and they replied “angry” (or a synonym like “cross”) when asked how they felt when they lost the first game, they were scored as correct. Emotional awareness was scored by using only these three anchor points. Thus, the maximum emotional awareness score achievable was 3 and the minimum was 0. Replying “nothing” or “okay” was counted as correct if the expression was coded as “no emotion,” so children not expressing any emotions at anchor points could still in principle score a maximum 3 for emotional awareness if they correctly replied “no emotion” (or equivalent) to each of the emotional awareness questions.

<TX> Coders judged the child’s predominant emotion by coding facial, postural, and vocal expressions during the 5-second period following each anchor point. The coding system was based on work by Cole, Zahn-Waxler, and Smith (1994) and Roberts and Strayer (1996). To obtain an interrater reliability measure, two observers independently coded 30 emotion episodes from the game by using this system and achieved good agreement ($\kappa = .72, p < .001$).

<C> *Children’s (third-person) emotional recognition.* Children’s emotional recognition (of another’s emotion) was assessed by using the Denham (1986) affective labeling task in which children were asked verbally to identify emotions in four drawn faces representing happy, angry, sad, and scared. Although Denham originally scored children 1 point for each correct emotion identified and a half point for the correct valence of emotion (e.g., calling the sad face angry), we decided to use a stricter coding scheme of simply 1 point for each correct emotion and no half points for correct valence. The reason for this stricter scheme was that the issue of being able to distinguish sad, angry, and fearful emotions was key to our measure of emotional awareness (we awarded no half points here for correct valence); and it was important for us to

compare these awareness scores with a control measure of the degree to which children recognize and distinguish the *expressions* of anger, sadness, and fear.

<C> *Children's verbal ability.* Children's receptive vocabulary was assessed by using the British Picture Vocabulary Scale III (Dunn, Dunn, Styles, & Sewell, 2009). The BPVS-III is administered by a researcher, who says a word from a standardized list, and the child points to one picture (out of four) that corresponds to the word. The child responds to progressively harder sets of words, and testing stops when the child makes at least eight errors within a set of 12 pictures. Raw scores were used in data analysis.

<C> *Mother's emotional validation and emotional invalidation.* *Emotional validation* was defined as parents' verbal statements and behaviors that accurately referenced their child's emotion in an accepting, nonjudgmental way. This was measured by using an observational system specially designed for this study, the Emotional Validation and Invalidation Observational Measure (EVIOM), which provided a simple count of the total number of mothers' validating and invalidating responses across the three games. To control for children's level of emotional expressivity (there is more opportunity to validate if the child is more emotional), the total number of validating and invalidating responses were divided by the number of emotions expressed by the child so as to give ratio scores of the average number of maternal validating and invalidating responses per emotion.

<TX> Interrater reliability of the EVIOM was assessed by using two raters, who each coded a sample of 30 mothers' videoed responses by using the EVIOM, and who were blind to each other's ratings. There was good agreement between the two raters for both emotional validation ($\kappa = .66, p < .001$) and emotional invalidation ($\kappa = .64, p < .001$). For construct validity, test sensitivity, and brief factor analysis of the EVIOM, see the Appendix.

The following coded responses gained 1 point for emotional validation and emotional invalidation, respectively, each time they occurred. Responses coded as emotional validation were as follows:

<NL>

1. *Congruent emotion labeling.* Directly labeling the child's emotion in an accurate and nonjudgmental way—for example, "I can see how angry you are" or "It makes you sad to lose."
2. *Validating emotional point of view.* The emotional perspective of the child is directly referred to (whether or not the emotion is explicitly labeled)—for example, "They're tricky those snakes" or "Oh dear!" (said in a tone that is congruent to the child's point of view).
3. *Marked affect mirroring.* The parent displays the correct emotion category that corresponds to the child's emotion state, but in an exaggerated or "marked" way in order to make clear that the display refers to the child's, and not the parent's, emotional state (see Gergely & Watson, 1996).

<TX-FL>Responses coded as emotional invalidation were as follows:

<NL>

1. *Minimizing.* Playing down the seriousness of the situation—for example, "It's only a game."
2. *Incongruent category.* Parent's verbalization or facial expression is incongruent to the child's emotion—for example, "You look angry" (when the child looks sad), or the parent smiles or laughs when the child frowns or looks sad.
3. *Distraction.* The parent distracts the child from their emotion—for example, "Oh look, it's your turn," "Let's play another game," or "Maybe you will win this time."
4. *Negation.* Telling the child not to have the emotion—for example, "Don't worry" or "Don't be angry."
5. *Ignoring.* Actively ignoring the child's emotion—that is, making no comment or response in situations when the parent has clearly noticed the child's emotion (as evidenced by eye gaze).

<A>Results

<TX-FL>Coding of emotional validation, invalidation, and the child's expressed emotions was carried out blind relative to the emotions later reported by the child. All children correctly answered all four of the memory questions, checking that they remembered who had won each game and in which game they had gone down two long snakes.

Bivariate Correlations Between All Study Variables

<TX-FL>All bivariate correlations (Pearson's r) and corresponding significance levels (two tailed) between major study variables are listed in Table 1.<TABLE 1> Child's emotional awareness scores correlated significantly with three variables: child's gender (girls more aware than boys), mother's emotional validation, and mother's emotional invalidation. Looking at the interrelationships of these four variables, mother's emotional validation and invalidation correlated significantly negatively with each other, and child's gender was correlated significantly with mother's validation (girls validated more than boys).

<TX> Other points of note are that the child's age was significantly correlated with both their verbal ability and their emotional recognition score, but neither age nor verbal ability nor emotional recognition was significantly correlated with emotional awareness.

Children's Expressed Emotion and Awareness of Emotion

<TX-FL>The emotion-induction procedure successfully produced negative emotions in all the children. Over the total game-playing period, the mean number of negative emotions expressed per child (i.e., the mean emotionality score referred to in Table 1) was 4.54 ($SD = 2.64$). Of these emotions, 50% were coded as sadness 47% as anger, and 3% as fear. The mother's responses to all these emotions were later used in calculating emotional validation and invalidation (see the next section). Because the incidence of fear was so low, expressed fear was not included in the analyses of awareness by emotion or validation by emotion.

<TX> Table 2<TABLE 2> lists the number of children correctly reporting each emotion—that is, the number (and percentage) showing awareness of each expressed emotion by category. These were the emotional awareness scores by child: 18% of the children failed to correctly name any of their emotions, 43% correctly named one of their emotions, 25% correctly named two emotions, and 14% correctly named all three of their emotions. The mean score for emotional awareness was 1.34 ($SD = .94$). There was an uneven distribution of awareness of emotion by emotion category. Children were accurately aware of 53% of all occurrences of sadness, but only 24% of all occurrences of anger. Thus, the majority of sadness episodes occurred with awareness, whereas the majority of anger episodes occurred without awareness. There was a significant association between awareness and the type of emotion expressed, $\chi^2(1, N = 161) = 12.59, p < .001, \phi = .28$. Looking at the standardized residuals, the effect was driven by a significantly lower-than-expected number of instances of awareness of anger (standardized residual = $-2.1, p < 0.5$) (see Figure 1).<FIGURE 1> Based on the odds ratio, the odds of being aware of the emotion was 3.47 times higher if the emotion was sadness than if it was anger.

Overall, children's self-reports of emotion were linked to the emotions they expressed, with $\chi^2(1, N = 106) = 4.19, p < .05, \phi = .19$. Thus, taking the sample as a whole, children's reports of their emotions matched their facial expressions at a level greater than chance. Based on the odds ratios, children overall were 2.51 times more likely to report the emotion they expressed than to report an emotion other than the one they expressed.

In terms of awareness by gender and emotion category a two-way analysis of variance showed a main effect for gender $F(1, 51) = 8.08, p = .01$ (girls were significantly more aware than boys) and a main effect for type of emotion, $F(1, 51) = 5.73, p = .02$ (children who most commonly expressed sadness were significantly more aware of their emotion than were those who most commonly expressed anger). There was no interaction between gender and type of

emotion in degree of child's emotional awareness, $F(1, 51) = .00, p = .99$ (see Figure 2).<FIGURE 2>

Mother's Emotional Validation and Invalidation

<TX-FL>Overall, in regard to their child's negative emotions, mothers made a total of 336 behavioral responses that were coded as either validating or invalidating. Of these, 89 responses (26%) were validating and 247 (74%) were invalidating. Of the validating responses, 80% were coded as validating point of view, 11% as mirroring, and 8% as labeling. Of the invalidating responses, 37% were incongruent emotion, 32% distraction, 20% ignoring, 9% minimizing, and 2% negation. In terms of the types of responses individuals engaged in, a total of 57% of mothers showed at least some emotional validation behavior, and 92% showed at least some emotional invalidation. About half the mothers (54%) engaged in both validation and invalidation, 38% in invalidation only, 5% in validation only, and 3% in neither. The mean emotional validation ratio was 0.29 ($SD = .37$), and the mean emotional invalidation ratio was 0.83 ($SD = .56$). In other words, mothers made on average 0.29 validation responses per child emotion and 0.83 invalidation responses per child emotion. These responses differed by child gender, with an average of 0.37 validation responses per girl's emotion and 0.19 validation responses per boy's emotion, and an average of 0.76 invalidation responses per girl's emotion and 0.90 invalidation per boy's emotion. Girls were significantly more likely to be validated than boys, $t(63) = -1.96, p = .025$ (one-tailed), but boys were not significantly more likely to have their emotions *invalidated*, $t(63) = 0.97, p = .17$ (one-tailed).

<TX> In terms of validation/invalidation behavior in relation to emotion category, validation was more common following sadness than following anger. There was a significant association between type of emotion expressed by the child and the type of mother's response, $\chi^2(1, N = 336) = 6.22, p < .05, \phi = 1.14$. This effect seems to be driven by a greater tendency to validate sadness. Based on the odds ratio, the odds of mothers producing a validating responses were

nearly twice as high (1.87 times higher) if their child's emotion was sadness than if it was anger.

Did gender and type of emotion expressed by the child interact with their mother's degree of emotional validation or invalidation? This question was addressed by conducting 2×2 analyses of variance (ANOVAs). (For these ANOVAs, children who expressed sadness and anger equally often [$n = 10$] were excluded.) First, with mother's emotional validation as the dependent variable, and the child's gender and the type of emotion most commonly expressed by the child as the independent variables, two-way ANOVAs showed a main effect for gender, $F(1, 51) = 4.92, p = .03$ (girls were significantly more validated than boys), and a main effect for type of emotion, $F(1, 51) = 6.08, p = .02$ (children who most commonly expressed sadness were significantly more validated than those who most commonly expressed anger). There was no interaction between gender and type of emotion in degree of mother's emotional validation, $F(1, 51) = .80, p = .38$ (see Figure 3).<FIGURE 3>

Second, two-way ANOVAs for maternal *invalidation* showed no main effect for gender, $F(1, 51) = 1.18, p = .29$, and no main effect for type of emotion, $F(1, 51) = 0.86, p = .36$. There was no interaction between gender and type of emotion in degree of mother's emotional invalidation, $F(1, 51) = .15, p = .70$.

Regression Analysis for Predicting Emotional Awareness

<TX-FL>To determine how different variables predicted child's emotional awareness while controlling for the effects of the other variables, a multiple linear regression was carried out using six predictor variables—child's age, child's gender, child's verbal ability, child's emotional recognition ability, mother's emotional validation, and mother's emotional invalidation. A hierarchical procedure was used with the predictor variables entered in three blocks: the four child variables entered first (Block 1)—age, gender, verbal ability, and emotional recognition—followed by the two parenting variables added in Block 2. Finally, two interaction variables (validation \times gender, and invalidation \times gender) were added in Block 3 to

determine whether the effects of validation on awareness were moderated by gender. See Table 3<TABLE 3> for standardized beta weightings and R^2 values. Plots of standardized residuals indicated that assumptions of normality, linearity, and homogeneity of variance were met, and variance inflation factor (VIF) statistics indicated no problems with multicollinearity. <TX> Model 1, which included only the child variables, accounted for 20% of the variance in child emotional awareness scores and was significant, $R^2 = .20$, $F(4, 60) = 3.43$, $p = .01$. There were two significant predictors in Model 1—namely, child's gender and child's third-person emotional recognition score. The addition of the parenting variables (mother's emotional validation and invalidation) in Model 2 increased the amount of variance in child emotional awareness accounted for by 25%–45%. This second model was also significant, $R^2 = .45$, $F(6, 58) = 7.46$, $p < .001$, and ΔR^2 from Model 1 to Model 2 was significant, $\Delta R^2 = .25$, $p < .001$. In Model 2, the three significant predictors were child's gender, mother's emotional validation, and mother's emotional invalidation. Finally, in Model 3, the interaction of emotional validation and gender, and emotional invalidation and gender, were added to determine whether gender moderated the effects of validation on awareness. ΔR^2 from Model 2 to Model 3 was 0.04 and not significant. The standardized betas for both interaction variables were not significant. Thus these additional variables in Model 3 did not add significantly to the variance explained, and the comments that immediately follow and those in the discussion are based on Model 2.

The variable with the largest association with child's emotional awareness was mother's emotional validation. The effect size of mother's emotional validation In Model 2 can be expressed by saying that increasing the mother's emotional validation by 1 *SD* would be associated with an increase in the child's emotional awareness by .45 *SD*. The effect size of child gender in Model 2 can be expressed by saying that being a girl, rather than a boy, is associated with an increase in emotional awareness by .25 *SD*.

<A>Discussion

<TX-FL>We were interested at the outset in this question: Are mothers' levels of emotional validation and invalidation linked to their children's emotional awareness? The results showed that mothers' emotional validation and mothers' emotional invalidation both had significant independent effects on their children's emotional awareness, even when controlling for their child's gender, age, verbal ability, and level of emotional recognition.

<TX> Based on a multiple regression model, the variable with the largest association with children's emotional awareness in this task was the mother's level of emotional validation. Furthermore, the mother's level of emotional *invalidation* was independently a significant *negative* predictor of the child's emotional awareness. This is consistent with Linehan's (1993) previous theoretical proposal that invalidating environments reduce the child's ability to label their own emotions accurately.

Neither the child's verbal ability, nor their level of emotional recognition, as indexed by an emotional facial recognition task, were significant predictors of emotional awareness in this study. However, consistent with some previous research, we found that girls were more accurate when reporting their emotions than were boys. In addition, girls were significantly more validated than boys (although boys were not significantly more *invalidated*). The greater validation of girls therefore may have played a role in girls' greater emotional awareness.

Mothers' emotional validation did not seem to serve as a simple prime for the children's emotion reports, since hardly any mothers directly labeled their child's emotions—the most common type of validation was to validate the child's emotional point of view (e.g., “Oh dear! They're tricky those snakes!”) without explicitly naming the emotion. This suggests that simple labeling of the child's emotion state was not the main process in operation here. Although studies by Linehan (1993) and by Fruzzetti, Shenk, and Hoffman (2005) highlight the importance of labeling, the implicit legitimizing of the emotion (as indexed by reflecting the child's point of view) had a strong effect in the present study, even in the absence of labeling.

Children's levels of emotional awareness were different for different categorical emotions, with children being significantly more aware of sadness than of anger. Furthermore, mothers were significantly more validating of sadness than they were of anger. Thus, there seems to be a link between mother's validation and child's emotional awareness at the level of emotion category. This is in line with previous research which found that anger is regarded as less socially acceptable than sadness and is often discouraged in children (Casey & Fuller, 1994), but here we demonstrate a correlation between the mother's level validation of a particular emotion and the child's subsequent awareness of it. This could be interpreted as the mother scaffolding their child's introspection in such a way that facilitated the child's emotion reporting.

Is the child's awareness of emotion entirely socially constructed by the parent? Our results suggest not, since our data show that children's reports of their emotions overall did correspond significantly to the emotions they expressed facially and behaviorally. In other words, the children seem to be using some form of introspection in the sense of using information derived from attending to their own emotion states. We can state this with reasonable confidence because situational factors were insufficient to account for the children's' emotion reports: When identical situations resulted in different emotion expressions—for example, going down the long snake, resulting in expressed anger for one child versus expressed sadness for another—children's emotion reports overall were linked significantly to the emotion they expressed. This implies that the child's episodic memory of the emotion they felt and expressed was playing a part in their self-report and was not merely memory of situational factors (e.g., "I went down a snake").

However, there was large variability in how accurately the children reported their emotions, and although characteristics of the child (i.e., their gender, age, verbal IQ, and emotional recognition ability) explained 20% of this variance, their mother's levels of emotional validation/invalidation accounted for a further 25% of this variance, more than

doubling the amount of variance explained ($\Delta R^2 = .25, p < .001$). Mothers' level of emotional validation/invalidation therefore had a statistically significant impact on their children's emotional awareness.

This is the first observational study to show directly that maternal emotional validation is positively correlated, and maternal invalidation is negatively correlated, with their children's emotional awareness. If awareness of emotion is beneficial and linked with emotional validation, then training and supporting parents in emotional validation of their children is desirable. In this study, we found that only 57% of mothers showed any emotional validation at all, whereas 92% produced at least some invalidating responses, and the overall ratio of invalidating responses to validating responses was nearly 3:1 at 2.86:1. The most common response to negative emotions of both sadness and anger was invalidation. Why were so few emotions validated?

This may be because many parents find the emotional validation of negative emotions an odd or unnatural thing to do (Faber & Mazlish, 2002; Ginott, 1965). Many parents view negative emotions as something not to be dwelt on but to be quickly passed over. Indeed, the validation specifically of anger is intuitively seen as inappropriate by many, and the skill required to validate anger experience without condoning anger behavior is quite sophisticated (Ginott, 1965). In addition to simply not knowing the technique, the mothers' general meta-emotion philosophy may have played a part here (Gottman et al., 1996), although this was not measured. An *emotion-dismissing philosophy*—the view that negative emotions are harmful and that the parent's job is to alleviate these as quickly as possible—may have predominated over an *emotion-coaching philosophy*—beliefs that the parent should help the child understand and express their negative emotions. Further research would be needed to establish the link between direct emotional validation as measured in the present study and the parents' meta-emotional beliefs. We should also add that some invalidating responses such as minimizing and distraction may be regarded as functional in some situations (e.g., when a child's emotion

is preventing them doing a task), but the claim being discussed here is that invalidation reduces emotional awareness, not necessarily that all invalidation is bad in all respects (although we are assuming that long-term reduction in emotional awareness may well have negative consequences).

However, we do have preliminary data that emotional validation as measured here can be trained. In a pilot training study ($N = 15$) used to examine the test sensitivity of the EVIOM, we found that giving mothers a booklet on emotional validation 1 week prior to testing increased the number of mothers who validated from 57% to 100% and the proportion of emotions they validated from 26% to 67% (Lindberg, 2013). Thus, after training, we increased the proportion of emotions validated from just under 1 in 3 to 2 in 3. This is preliminary evidence that emotional validation can be effectively trained, although further research is needed to establish how long lasting the effects of training are and also the impact it has on the emotional awareness of the trainees' children.

There are several limitations of the present study. First, the sample we used was homogeneous, largely consisting of highly educated middle-class mothers. The patterns of emotional validation and invalidation observed may not generalize to different social or cultural groups. No fathers were observed, and the issue of how children might respond if one parent is validating and one is invalidating was not covered. Second, the measure of emotional awareness used does have the problem of being insensitive to deliberate suppression of emotional expression by the child or to deliberate verbal denial by the child. In both of these cases, children might be scored as unaware of their emotion when in fact they were aware. The data show 26 cases out of 195 in which the former was possible (i.e., no emotion was expressed but one was reported) and 20 cases in which the latter was possible (i.e., an emotion was expressed and reported as "no emotion"). Neither excluding these cases, nor giving them the benefit of the doubt and coding them as awareness, made a difference to the statistical

significance of the effect between emotional validation and awareness, but acknowledging these possibilities does reduce the sensitivity of our measure.

Third, the mothers' emotions were not recorded unless they were a response to their child's emotions. Mothers' emotions *before* the child responded were not examined. It is possible that the mother's own emotion sometimes primed their child's subsequent emotion—that is, that social referencing was an additional process operating prior to emotional validation. Even in such cases, however, the child's awareness of their emotion and the mother's emotional validation of it can still be measured. Further research would be needed to address the interplay between social referencing and emotional validation.

Fourth, the interaction between mother and child in this study was in a game situation. Although many negative emotions were generated, it may be that the way people respond to each others' negative emotions in games is not typical of how emotions are responded to in real life. Ideally, more naturalistic situations should be recorded so that parents' authentic responses to their child's real-life emotions can be coded.

Fifth, the study presents only a microanalysis of a specific interaction, and we cannot assume that the effects of validation on awareness observed here in a game will necessarily generalize to other situations or have longer-term effects. All we can say the present study has demonstrated is that when mothers validate or invalidate their child's emotions while playing a game, this affects their child's subsequent awareness of their emotions while playing that game. It may or may not be that this will generalize such that mothers who habitually validate or invalidate their child's emotions will have a long-term effect on their child developing more or less emotional awareness in general. Further research using a longitudinal design and a range of settings would be needed to address this. However, at the very least, the present study does not reduce the plausibility of the idea that a more general link exists between emotional validation and emotional awareness.

In conclusion, although emotional validation by parents has been hypothesized to play an important role in children's emotional awareness in both the parenting (Ginott, 1965; Gottman et al., 1996) and the clinical literature (e.g., Linehan, 1993), the present study has been the first to directly measure and establish this link observationally in specific mother-child interactions. Greater emotional validation by mothers was associated with greater emotional awareness in their children, and greater invalidation was associated with decreased emotional awareness. These findings would need to be replicated, and several factors need further investigation—for example, the role played by mother's meta-emotion philosophy, whether the effects can be established longitudinally and across different settings, how the effects may vary across social class and culture, and the role of fathers—but the implications are clear: Focusing specifically on emotional validation skills in parenting training is potentially a key factor in increasing children's direct awareness of their own emotion states.

<Footnote>

<FS1>To measure emotional validation, we did not use the existing Parent-Child Validation/Invalidation Coding Scale (Schneider & Fruzzetti, 2002) for two reasons: (a) This scale is based on observing a discussion between parent and child about a past emotional event in which the child felt sad, angry, or scared, whereas we wanted to look at *live* rather than past emotions in children in order to gain concurrent measures of real-time emotional awareness and real-time emotional validation. (b) The scale gives “problem-solving” by the parent a high rating for emotional validation, which is conceptually problematic, since arguably problem-solving can be done in an invalidating way (see Faber & Mazlish, 2002; Ginott, 1965).

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<AP>

<A>Appendix: Validity of the EVIOM

Construct validity of the EVIOM was hard to determine directly against existing measures because our construct differed somewhat from the only other existing observational measure, the Parent–Child Validation/Invalidation Coding Scale (Schneider & Fruzzetti, 2002).

However, significant correlations were found with some related self-report measures. For emotional invalidation, two subscales of the Coping with Children’s Negative Emotion Scale (CCNES; Eisenberg & Fabes, 1994) were relevant. Invalidation as measured by the EVIOM correlated significantly ($r = .28, p < .05$) with the Punitive subscale of the CCNES, which measures the degree to which parents report they respond with punishment to their child’s negative emotions; and correlated significantly negatively ($r = -.25, p < .05$) with the Expressive Encouragement subscale of the CCNES, which measures the degree to which parents report they encourage their child to express negative emotions.

For emotional validation, none of the subscales of the CCNES were sufficiently matched to use for construct validity. Instead, we explored construct validity via test sensitivity to a training procedure that adhered closely to a key paradigmatic model of emotional validation. For this, we devised a training booklet by using the emotional validation construct of Faber and Mazlish (2002), which is directly derived from the work of Ginott (1965). In a separate study (Lindberg, 2013), mothers ($N = 30$) were randomly assigned to either an emotional validation-training condition or to a no-training control. In the training condition, mothers, 1 week before testing, were given a short booklet (based on material from Faber & Mazlish, 2002) explaining what emotional validation is and how to demonstrate it. The control group was given only the normal participant information sheet. Both groups then participated

in the parent–child Snakes and Ladders game, and emotional validation was measured by using the EVIOM. Participants in the emotional validation training group exhibited significantly more emotional validation as measured by the EVIOM than those in the control group, $t(27) = -5.14, p < .001$, indicating that the EVIOM was sensitive to the presence of emotional validation as defined by Faber and Mazlish (2002) and Ginott (1965).

An exploratory principal components analysis was used to identify factors underlying the nine items of the EVIOM. Initial analysis revealed four factors with eigenvalues greater than 1, with the first factor explaining 24% of the variance, the second factor 17% of the variance, the third factor 15% of the variance, and the fourth factor 12% of the variance. Two-, three-, and four-factor solutions were examined by using both varimax and oblimin rotations. There was little difference between the varimax and oblimin solutions, and the varimax analysis is reported here. The four-factor solution yielded a first factor loading heavily on Negation (.99) and Punish (.99); a second loading highly on Validating Context (.81), Labeling (.65), and Not Ignoring (.60); a third loading on Distraction (.83) and Minimizing (.60); and a fourth loading on Mirroring (.75) and Not Incongruent (.75). The three-factor solution produced a first factor loading on Negation (.98) and Punish (.98); a second loading on Validating Context (.82), Labeling (.62), and Not Ignoring (.52); and a third loading on Distraction (.63), Not Ignoring (.59), Not Mirroring (.53), and Minimizing (.44). The two-factor solution yielded a first factor loading on Punish (.97), Negation (.97), and Minimizing (.41); and a second factor loading on Validating Context (.82), Labeling (.63), and Not Ignoring (.51).

The two-factor solution, which explained 41% of the variance, was preferred because of the leveling off of eigenvalues on the scree plot after two factors, and because of previous theoretical support. The two factors of “punish–negate–minimize” and “validate-label-attend” fall well into *Invalidate* and *Validate* constructs, respectively. Alternatively, the four-factor solution, which explained 68% of the variance, seems to give two validating and two

invalidating factors. The validating factors were *Validation* (validating context, labeling, and not ignoring), and *Congruency* (mirroring and not incongruent); and the invalidating factors were *Negation* (negate and punish) and *Minimization* (distraction and minimizing).<EOF>

Table 1

Number of children expressing emotions by category at each anchor point, the number correctly reporting (aware of) that emotion, and the number aware as a percentage (%) of those expressed.

| Anchor Point | | Sadness | Anger | Fear | No emotion | Total |
|------------------|------------------|---------|-------|------|------------|-------|
| Lost first game: | <i>Expressed</i> | 25 | 18 | 0 | 22 | 65 |
| | <i>Reported</i> | 13 | 3 | n/a | 1 | 17 |
| | <i>% Aware</i> | 52% | 17% | n/a | 5% | 26% |
| Down long snake | <i>Expressed</i> | 39 | 17 | 2 | 7 | 65 |
| | <i>Reported</i> | 22 | 5 | 0 | 0 | 30 |
| | <i>% Aware</i> | 56% | 29% | 0% | 0% | 46% |
| Down 2 snakes | <i>Expressed</i> | 35 | 27 | 2 | 1 | 65 |
| | <i>Reported</i> | 17 | 7 | 0 | 0 | 24 |
| | <i>% Aware</i> | 49% | 26% | 0% | 0% | 37% |
| Total | <i>Expressed</i> | 99 | 62 | 4 | 30 | 195 |
| | <i>Reported</i> | 52 | 15 | 0 | 1 | 68 |
| | <i>% Aware</i> | 53% | 24% | 0% | 3% | 35% |

Table 2

Correlations, Means, and Standard Deviations of Key Study Variables

| | <i>M (SD)</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-----------------------------|--------------------|---|------|-------|------|------|-------|-------|-------|-------|--------|
| <i>Child Variables</i> | | | | | | | | | | | |
| 1. Age (months) | 70.09 (12.10) | 1 | -.06 | .53** | -.12 | .25* | .07 | .01 | .12 | -.13 | .12 |
| 2. Gender | 0.49 (.50) | | 1 | -.11 | .31* | -.08 | .37** | .18 | .12 | .26* | -.12 |
| 3. Verbal Ability | 102.85 (11.58) | | | 1 | -.07 | .19 | .05 | .28* | .27* | -.05 | .04 |
| 4. Emotionality | 4.54 (2.64) | | | | 1 | .03 | .13 | .23 | .14 | .01 | .12 |
| 5. Emotional Understanding | 2.72 (.84) | | | | | 1 | .22 | -.31* | .01 | .13 | -.08 |
| 6. Emotional Awareness | 1.34 (.94) | | | | | | 1 | -.03 | .22 | .56** | -.36** |
| <i>Parent Variables</i> | | | | | | | | | | | |
| 7. Household Income (£) | 49.71k (28.26k) | | | | | | | 1 | .47** | .07 | .00 |
| 8. Mother's Education (yrs) | 16.00 (3.06) | | | | | | | | 1 | .26* | -.24 |
| 9. Emotional Validation | 0.28 (.37) | | | | | | | | | 1 | -.28* |
| 10. Emotional Invalidation | 0.83 (.56) | | | | | | | | | | 1 |

Notes. $N = 65$ for all variables except Education ($n=61$) and Income ($n= 55$). For sex, 0= male, 1 = female.

* $p < .05$ ** $p < .01$ (2-tailed)

Table 3

Regressions Predicting Child Emotional Awareness (with Child Variables Entered for Model 1, Mother's Validation/Invalidation Scores Added for Model 2, and Interactions Between Emotional Validation/Invalidation and Gender Added for Model 3)

| Predictor | Model 1 | Model 2 | Model 3 |
|---------------------------------|---------|---------|---------|
| Age (child) | .01 | .12 | .11 |
| Gender (child) | .39** | .25* | .27* |
| Verbal IQ (child) | .05 | .03 | .05 |
| Emotional understanding (child) | .24* | .13 | .18 |
| Emotional validation (mother) | | .44*** | .36** |
| Emotional invalidation (mother) | | -.21* | -.16 |
| Emotional validation × gender | | | .07 |
| Emotional invalidation × gender | | | -.25 |
| R^2 | .20 | .45 | .49 |
| ΔR^2 | | .25 *** | .04 |

Notes. Values for each variable represent the standardized beta for the variable.

* $p < .05$. ** $p < .01$ *** $p < .001$



Figure 1. Children's emotional awareness by category. Number of instances of anger and sadness expressed at particular anchor points of which children were aware or not aware.

(* $p < .05$)

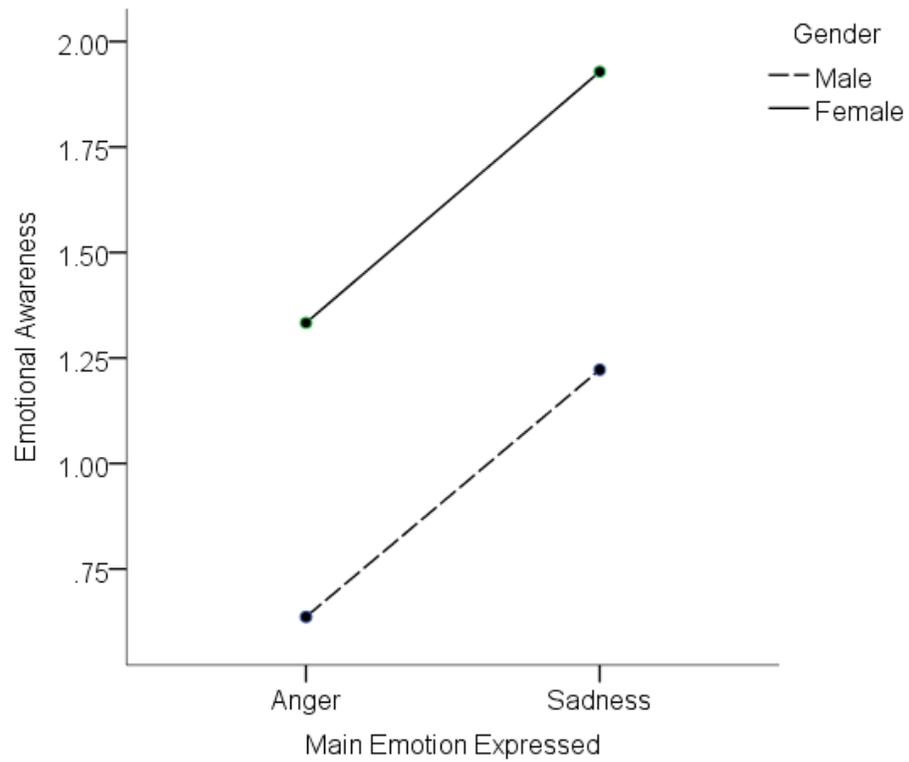


Figure 2. Child's emotional awareness score (number of own emotions correctly identified) by gender and type of emotion most commonly expressed.

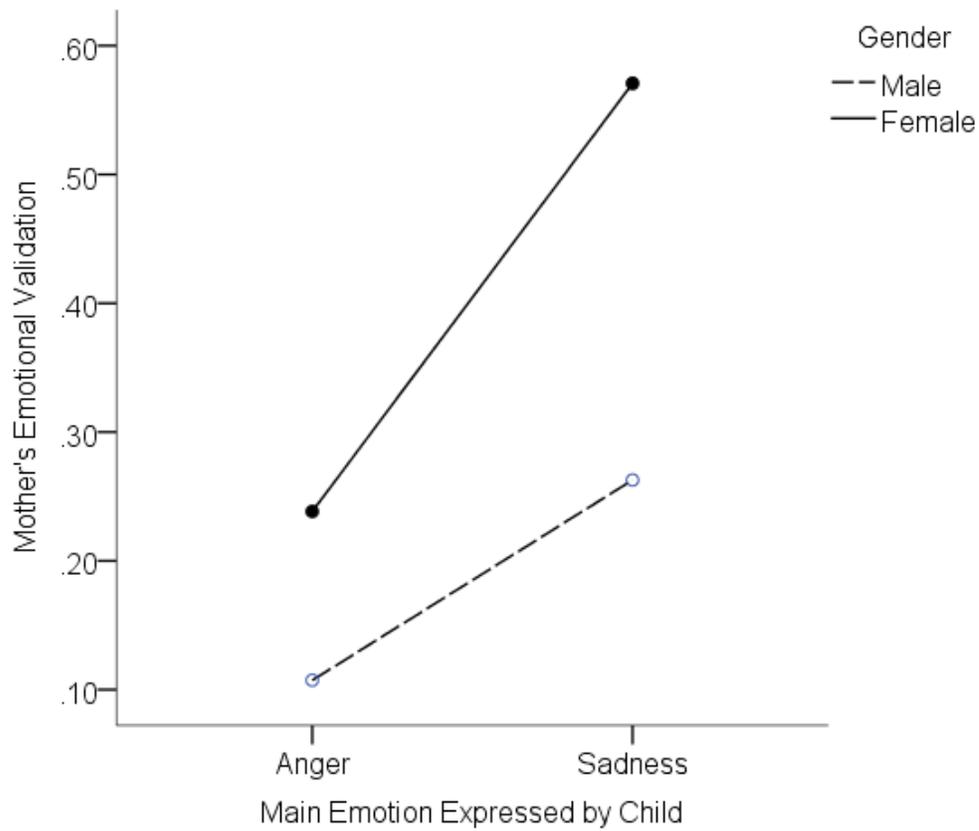


Figure 3. Mother's degree of emotional validation (average number of validating responses per child emotion) by gender of child and type of emotion most commonly expressed by child.