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The Relationship of Language and Emotion Understanding to Sociable Behavior of Children with Language Impairment

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THE RELATIONSHIP OF LANGUAGE AND EMOTION UNDERSTANDING

TO THE SOCIABLE BEHAVIOR

OF CHILDREN WITH LANGUAGE IMPAIRMENT

by

Jami Lee Potter

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GRADUATE COMMITTEE APPROVAL

of a thesis submitted by

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This thesis has been read by each member of the following graduate committee and by majority vote has been found to be satisfactory.

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As chair of the candidate's graduate committee, I have read the thesis of Jami Lee Potter in its final form and have found that (1) its format, citations, and bibliographical style are consistent and acceptable and fulfill university and department style requirements; (2) its illustrative materials including figures, tables, and charts are in place; and (3) the final manuscript is satisfactory to the graduate committee and is ready for submission to the university library.

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ABSTRACT

THE RELATIONSHIP OF LANGUAGE AND EMOTION UNDERSTANDING

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OF CHILDREN WITH LANGUAGE IMPAIRMENT

Jami Lee Potter

Department of Communication Disorders

Master of Science

The purpose of this study was to examine the relationship between emotion understanding and language ability to the sociable behavior in children with language impairment (LI) and their typically developing peers. Twenty-nine children with LI and 29 age- and gender-matched peers with typical language were used in this study. Sociability was rated by his/her classroom teacher using the *Teacher Behavior Rating Scale* (Hart & Robinson, 1996). Language ability was assessed using the *Comprehensive Assessment of Spoken Language* (Carrow-Woolfolk, 1999). To assess emotion understanding, each participant was asked to perform several structural dissemblance tasks. Children with LI received scores significantly lower in language, dissemblance, prosocial behavior, and likeability compared to their typical developing peers. Hierarchical regression analyses indicated that language was a significant predictor of

sociability. However, further analyses indicated that dissemblance mediated the

relationship between language and likeability in girls, but not boys. Results from further

analyses for prosocial behavior indicated that dissemblance did not mediate the

relationship between language and prosocial behavior. Evidence from this study supports

past research indicating children with LI experience emotional and language difficulties,

which affect their social competence, particularly in girls.

ACKNOWLEDGMENTS

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Introduction

Recent research has revealed that children with language impairment (LI) have marked social difficulties. For example, these children have difficulty accessing ongoing interactions (Brinton, Fujiki, Spencer, & Robinson, 1997; Craig & Washington, 1993; Liiva & Cleave, 2005), have problems negotiating with classmates (Brinton, Fujiki, & McKee, 1998), and are less likely to be chosen as playmates by peers (Gertner, Rice, & Hadley, 1994). It has also been found that children with LI are rated by teachers as being more withdrawn and less sociable than their typical peers (Fujiki, Brinton, Isaacson, & Summers, 2001; Fujiki, Brinton, Morgan, & Hart, 1999; Redmond & Rice, 1998; Fujiki, Spackman, Brinton, & Hall, 2004; Irwin, Carter, & Briggs-Gowan, 2002).

Although a direct linkage has not been established, it is likely that these interactional problems play a role in the social outcomes experienced by these children. Children with LI are also often ignored by their classmates in conversation (Hadley & Rice, 1991), are more likely to interact with adults rather than same age peers (McCabe & Marshall, 2006; Rice, Sell, & Hadley, 1991), have fewer friends (Durkin & Conti-Ramsden, 2007; Fujiki, Brinton, Hart, & Fitzgerald, 1999) and are more likely to be labeled as having behavioral problems by teachers (Fujiki, Brinton, & Todd, 1996).

It might be assumed that the social difficulties experienced by children with LI stem solely from their deficits in language. In keeping with this idea, Redmond and Rice (1998) proposed the Social Adaptation Model (SAM) to explain how language ability may affect social competence. These authors suggest that children with LI make social adjustments as a result of their poor language ability. Realizing that they do not communicate effectively, they avoid social interactions in which their poor skills would be displayed. Although language is likely to play an important role in social competence,

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recent work has suggested that other factors may play a role as well since severity of LI is not always correlated with the severity of social deficits (Fujiki, Brinton, Morgan et al., 1999; Hart, Fujiki, Brinton, & Hart, 2004).

One factor that may contribute to the social difficulties of children with LI is emotional competence. It has been found that children with LI do not recognize emotion as well as children their own age with typical language development, which in turn may affect social interactions (e.g., Brinton, Spackman, Fujiki, & Ricks, 2007; Fujiki, Spackman, Brinton, & Illig, 2008). Izard (2001) suggested that a deficiency in emotion knowledge "leads to contextually inappropriate or insufficient emotion communication and, hence, to behavior problems and delayed social competence" (p. 252). The purpose of this study was to determine the contributions of language ability and emotion understanding, as reflected by structured dissemblance (Brinton et al., 2007), predicted the level of sociable behavior exhibited by children with LI and their peers with typical skills.

Review of Literature

The following literature review focuses on social competence with a particular emphasis on sociability. Researchers have different views on the subject of sociable behavior. These views are explored and the manner in which sociability affects the social interactions of typical children is considered. Next, the difficulties children with LI have with social competence in general and sociable behavior in particular are reviewed. One factor suspected of interacting with LI to produce difficulty with sociable behavior is emotion understanding. Thus, emotion understanding is defined with a specific focus on emotional dissemblance. Finally, the difficulties children with LI have with emotion understanding are presented.

Sociability

Sanson, Hemphill, and Smart (2004) describe sociability as, "the tendency to approach novel situations and people" (p. 143). It also refers to positive social behavior. Sociable behaviors may include behaviors such as showing concern, inviting by-standers to join an activity, stopping a quarrel, being cooperative, giving support, engaging in play, and having conversations with other children while playing (Coie, Dodge, & Coppotelli, 1982; Coplan & Rubin, 1998).

Various researchers have divided sociability into sub-categories. In one such example, Hart, Olsen, Robinson, and Mandleco (1997) divided sociability into two subtypes: likeability (or impulse control) and prosocial behavior. Likeability referred to behaviors that affected how easy a child is to get along with and how well liked the child is by others. The list of behaviors categorized under this label included friendly and conforming behavior, emotion regulation, appropriate rough and tumble play, and assertive leadership skills (Hart, McGee, & Hernandez, 1993).

Prosocial behavior has been defined, "as any voluntary, intentional action that produces positive or beneficial outcome for the recipient regardless of whether that action is costly to the donor, neutral in its impact, or beneficial" (Grusec, Davidov, & Lundell, 2002, p. 458). Prosocial behavior may include providing comfort to a peer, sharing, or offering assistance.

For typically developing children, sociable behaviors are associated with higher sociometric ratings. This was found true across cultures (Hart et al., 2000), age groups (Coie et al., 1982), and populations with disability (Siperstein & Leffert, 1997). Prosocial behaviors such as cooperativeness were highly predictive of social acceptance and popularity among children of varying age groups (Coie, Dodge, & Kupersmidt, 1990).

There is considerable evidence that children who produce more sociable behaviors are more well accepted by their peers and had more friendships. For example, Newcomb, Bukowski, and Pattee (1993) examined teacher, parent, and peer ratings of behavior. These authors found that popular children were rated as more sociable than less accepted peers. Children who were rejected or neglected were rated as less sociable by all informants (teacher, parent, and peer).

Additionally, Coie et al. (1982) investigated the sociometric ratings of children in the third, fifth, and eighth grade. Children were separated into sociometric categories (e.g., popular, socially rejected, and controversial) based on peer ratings and nominations. The researchers found that popular children were rated high in cooperativeness and leadership and low in negative social behaviors. The opposite was found true for children who were rejected. It is notable that another group of children received high ratings in

leadership, but also high ratings in negative behaviors. These children were liked by some peers and not by others. Coie et al. labeled these children as controversial.

Ladd and Price (1987) investigated children's transition from preschool to kindergarten in order to identify social behaviors that predict social development. Children with higher levels of cooperative play and prosocial behaviors were perceived more positively by teachers and peers. Those who were more aggressive were disliked by peers and viewed less positively by teachers.

The relationship between behavior on the playground and social status was examined by Ladd, Price, and Hart (1988). Twenty-eight children were followed throughout the school year, being observed at the beginning, middle, and end of the year. After each observation, each child involved in the study was asked to identify three children they enjoyed playing with and three children they did not like playing with. It was found that children who displayed more prosocial behavior early in the year received more positive social ratings. It was also found that observed behavior predicted social outcome and peer reputation predicted observed behavior later in the school year. Early prosocial behavior such as cooperative play did not predict later behavior. It was also found that initial negative reputations continue even if the child's behavior changed during the school year.

Sociable behavior is important for the development of social relationships in childhood. The development of social relationships is in turn important because it is linked to a variety of outcomes later in life. Ladd, Buhs, and Troop (2002) suggested that long-term delinquency, school drop-out, and psychological disturbances could be associated with unsuccessful childhood social relationships and experiences. Pianta

(1999) also stressed the importance of developing positive peer relationships, stressing its links with success in school and life. Although not the only influential variable, positive sociable behaviors are highly important to positive social relationships.

Hart, Ladd, and Burleson (1990) examined first and fourth grade children's expectations for outcomes of friendly and unfriendly behavior to predict peer status and determine if their expectations were affected by maternal discipline. Children who expected to get their way by using non-friendly, assertive strategies were less desired as playmates. These same children had mothers who were more power assertive in their disciplinary style, suggesting that children's expectations and sociable behavior is affected by maternal style of discipline.

Eisenberg et al. (2001) used a Structured Equation Model (SEM) to examine the relationship between maternal expression of positive and negative affect and social competence in 4-year and 6-year-old children. The model revealed a relationship between maternal affective expression and social competence. Mother's who regulated their behavior and expression had children with better regulation and were more socially competent. Positive social relationships thus appeared to be an outcome of positive sociable behaviors.

Although not a comprehensive review, the studies cited above are representative of a larger body of literature. There is considerable evidence that sociable behavior is basic to the development of social competence in typical children. The next section focuses on social competence in children with LI.

Social Behaviors in Children with LI

First a sampling of some of the research done on the social competence of children with LI is reviewed. These studies give some examples of the problems these

children experience. This is followed by studies that focus specifically on sociable behavior.

Cillessen and Bellmore (2002) have suggested that to be socially competent, a child must display certain positive behaviors during four common social tasks: appropriate play with peers, accessing peer groups, emotion regulation, and conflict resolution. Various studies have found that children with LI have difficulties in all four of these tasks.

Rice et al. (1991) studied the interactions of preschool aged children with typical language skills and children with disordered language skills. They found that typically developing children preferred talking to other children with typical developing language. Those with disordered language talked more with adults than their peers. Observing children in the same preschool context, Hadley and Rice (1991) found that children with LI ignored the initiations for interaction by their peers. These same children were also ignored by their typical language peers.

McCabe and Marshall (2006) found similar results to those of Rice and her colleagues in another group of preschool children with LI. The authors compared information from direct observation of the children with teacher and parent ratings of behavior. They hypothesized that the children would differ in their interactive style from their typical age-matched peers in assertiveness, isolation, dependency, and other social behaviors. It was found that children with LI relied on adults as conversational partners and ignored others. Both teachers and parents rated the children as being less assertive and more isolated and dependent on adults. These children did not engage in sociointeractive play, but in adjacent play.

Fujiki et al. (1996) asked teachers to rate the social behavior of elementary school age children with LI and their peers. Teachers rated children with LI as being less socially competent and displaying more problem behaviors than their typical chronological age-matched peers. The children with LI also self-reported that they interacted with fewer peers than the typical children studied.

McCabe and Mellor (2004) looked at the social competence of preschool children with LI. Each child's behavior was rated by teachers, parents, and peers on social problem solving and sociable behavior. Preschoolers with LI were rated lower than their peers with typical language in assertiveness, socialization, self-control, and empathetic responding. Children with LI were also rated lower on sociable behaviors including being liked by peers, initiating activities, and showing concern for others.

Fujiki, Brinton, Hart et al. (1999) found children with LI to be less accepted by peers. Eight children with LI received peer ratings and reciprocal friendship ratings from their classmates. Three of the children in the study were less accepted by peers. Five of the children with LI reported no reciprocal friendships and were not rated by any of their peers as a best friend. These outcomes were notably poorer that those observed for the typically developing children in the same classrooms.

Cillessen and Bellmore's (2002) second point regarding social competence was the ability to access, or enter an ongoing interaction. This task is important because it requires the child to initiate interaction which is basic to developing relationships. If a child is unable to access ongoing peer interactions, there is little chance of forming friendships or learn from peers (Craig & Washington, 1993).

Craig and Washington (1993) observed five children with LI as they attempted to access an ongoing dyadic interaction. Three of the five children did not access the group. Two of the children stood back and watched the other children play. The third child who did not access the interaction attempted to do so but was rejected and did not try again. The two children who did access the group did so without using verbal language. Craig and Washington also observed typical children matched for chronological age and language age perform the same task. All of the typical children successfully accessed the group.

Brinton et al. (1997) examined six elementary school age children with LI in their attempts to access ongoing interactions in a 20-minute time period. Two of the six children never accessed the group. A third child with LI accessed but only played momentarily. As in the Craig and Washington (1993) study, all of the typical chronological and age matched children were able to access successfully. Brinton et al. also observed the children who were able to enter the interaction. It was found that despite accessing, these children were frequently only able to superficially interact with the other children. These findings were replicated and extended by Liiva and Cleave (2005).

Cillessen and Bellmore's (2002) third point regarding social competence focused on emotion regulation. As in the previous two areas, there is evidence suggesting that children with LI have poor emotion regulation skills than their typical peers. By way of example, Fujiki et al. (2004) studied children with LI and typically developing controls to determine if there were differences in emotion regulation, language ability, and reticence These authors also examined the extent to which emotion regulation and language

predicted reticence. Children with LI received lower language scores, lower ratings on emotion regulation, and lower reticent scores than their typical language peers. Both emotion regulation and language ability were found to be predictive of reticence in children with LI.

Cilessen and Bellmore's (2002) fourth point focused on conflict resolution. In a study that addressed a related area, Brinton et al. (1998) examined the ability of children with LI to participate in negotiations with peers. These researchers focused on the type of negotiation strategies the children used in making a mutual group decision with two typically developing peers of the same age. The task involved the three children negotiating which snack they wanted to share. Results were not statistically different in the number of utterances produced by the children with LI and the typically developing peers. However, the children with LI used fewer negotiation strategies, and the strategies the children with LI did produce were lower level negotiation strategies. These lower level negotiation strategies consisted of demanding and vetoing. Examples of the higher level strategies used by typically developing children included pointing out advantages for a particular treat or suggesting that the children vote on the decision.

Several researchers have focused specifically on sociability. Using teacher ratings of sociable behaviors, Hart et al. (2004) studied the relationship between sociability and severity of LI. Teachers rated the social behavior of 41 children with LI and 41 children with typical language development. It was found that children with LI were rated lower in sociable behaviors than their typical peers. It was also suggested that severity of LI was related to the child's level of prosocial behavior. Severe difficulty with receptive or expressive language was predictive of lower prosocial ratings. This finding was not

surprising. Prosocial behaviors such as comforting, sharing, helping, and sympathizing with a peer require receptive and expressive language.

The work of Hart et al. (2004) is representative of other studies that have also found that children with LI are rated as less sociable than typical peers by teachers. Illustrative of this research, Fujiki, Brinton, Morgan et al. (1999) and Fujiki et al. (2004) also found similar results using teacher ratings.

The above research has shown that children with LI differ in social competence in relation to their typically developing peers. There may be several factors contributing to the child's behavior. One factor that has been receiving attention recently is emotional competence. One aspect of emotional competence, emotion understanding, has received particular study.

Emotional Competence

Emotions are an integral part of child development. The display, regulation, and understanding of emotion is key for successful social interactions (Denham, von Salisch, Olthof, Kochanoff, & Caverly, 2002). An example of the connection between social and emotional competence is found in the definition of affective social competence (ASC). ASC has been defined by Dunsmore, Noguchi, Garner, Casey, and Bhullar (2008) as "the ability to effectively send and receive emotional signals and to manage one's own emotional experience" (p. 212). This definition highlights the connection between social and emotional competence.

Emotional competence has been defined by Saarni (1999) as the ability to demonstrate "one's self-efficacy in emotion-eliciting transactions, which are invariably social in nature" (p. 2). Within this definition, self-efficacy is, "acting in accord with one's sense of moral character" (p. 2). Emotions underlie the development of moral

behavior (Eisenberg & Fabes, 1998; Izard, 2001). Therefore, to be characterized as emotionally competent one must be able to act accordingly to one's own moral code when faced with emotion-eliciting experiences.

Emotion expression, emotion understanding, and emotion regulation are three subtypes of emotional competence. Expression of emotion involves a range of behaviors such as using gestures to express a message regarding a social situation, expressing empathy towards others' emotions, displaying complex and self-conscious emotions such as shame and guilt, and displaying an emotion outwardly while internally experiencing different or even ambivalent emotions. Emotion understanding is the ability to identify one's own and others' emotions and being able to talk about emotions. Emotion regulation is defined as the ability to monitor the outward display of emotion and emotional arousal (Denham, 1998).

The three subtypes explained above are intricately connected components that form the overall construct of emotional competence. When a child faces an emotion eliciting situation, the child must be able to identify the current emotions of self and of others to regulate behavior during the situation. The ability to regulate behavior aids the child in appropriately expressing emotion; knowing when and where it is appropriate to express emotion and acting in accord to one's own moral code. Emotion understanding is basic to emotion regulation and emotion expression. One must be able to understand one's own emotions and the emotional behavior of others in order to regulate and express emotion appropriately (Denham, 1998). Although these three components of emotional competence are interrelated, the remainder of this review will focus on emotion understanding and the effects it has on social interactions in both typically developing

children and children with LI. Of particular importance is dissemblance, a higher level aspect of emotion understanding.

Emotion understanding. Saarni (1999) defined emotion understanding as "the ability to discern and understand others' emotions, using situational and expressive cues that have some degree of cultural consensus as to their emotional meaning" (p. 106). Denham (1998) indicated that the umbrella term emotion understanding involves the following behaviors:

1. Labeling emotional expressions

2. Identifying emotion-eliciting situations

3. Inferring the causes of emotion-eliciting situations and the consequences of specific emotional reactions

4. Using emotion language to describe one's own emotions and clarify those of others

5. Recognizing that others can experience different emotional experiences than one's self

6. Being aware of emotion regulation strategies

7. Knowing emotion display rules

8. Knowing that more than one emotion can be experienced concurrently, even when the emotions conflict

9. Understanding complex social and self-conscious emotions

Of particular interest in the context of the current study is emotional dissemblance, which involves points 5 and 7. Dissemblance, which is discussed in greater detail in the next section, was used to provide an indication of an individual's emotion

understanding. Successful dissemblance requires an individual to infer the consequences of emotional reactions, have a knowledge of emotion display rules, and an understanding of complex social and self-conscious emotions.

Emotional dissemblance. Emotional dissemblance was chosen as the measure of emotion understanding in this study because it is a more sophisticated aspect of emotion understanding. In order to dissemble (or hide) emotion, a child must realize "that inner emotional state need not correspond to outer expression, both in oneself and in others" (Saarni, 1999, p. 187). Saarni outlined four motivations for children using emotional display rules to dissemble emotion. The first motivation is to avoid negative consequences of displaying an emotion. The second motivation is to save face or to effectively manage how one feels. The third motivation for dissembling emotion is to protect someone else's feelings, with the goal of preserving a relationship. This motivation represents a more mature level of emotion dissemblance. Finally, the fourth motivation for dissembling emotion is to conform to social and cultural rules for displaying emotion. In order to know when emotion should be dissembled, the child must have knowledge of emotion display rules.

Emotional display rules are conventions for expressing emotion appropriately according to social norms. Gnepp and Hess (1986) stated that emotions may be expressed according to cultural display rules or "display rules designed to satisfy a *need of the moment*" (p. 103). Gnepp and Hess further described these two types of display rules by stating:

> Cultural display rules are social conventions shared by members of a particular social class, subculture, or culture. Displays to satisfy a need of the moment are

used for personal gain; they are based on the individual's expectations of the

consequences of expressing a particular emotion in a given situation. Thus, they

are usually self-protective in nature. (p. 103)

One example of the use of cultural display rules is when one expresses gratitude for an

unwanted gift in order to protect the feelings of the other person, a prosocial behavior.

Displays of emotion to satisfy the need of the moment are used to avoid the consequences

of displaying of an action, such as a child showing remorse for breaking mother's vase to

avoid punishment.

Gosselin, Warren, and Diotto (2002) presented 6- and 11-year-old children with

vignettes in which the main character was required to dissemble emotion. Each vignette

had two endings: one which was prosocial and one which was self-protective. Children in

both age groups accurately identified the true emotion of the main character. Boys were

more accurate than girls when the motivation was prosocial. The authors attributed this

difference to the dissemblance of a positive emotion and the motivation being prosocial

in nature.

Cole (1986) studied preschoolers' and first and third graders' use of emotion

dissemblance. Children were asked to rank toys according to which toy they would want

most. The children were then given the toy ranked least on their list. The children's

reaction varied according to whether or not the examiner was in the room. Children at

both age levels controlled emotion. Girls smiled more than boys when given the

unwanted gift.

Underwood, Coie, and Herbsman (1992) studied the display rules for anger and

aggressiveness in third, fifth, and seventh graders. Each participant responded to

videotaped, anger-evoking stories. All children dissembled emotion more for teachers than peers. Dissemblance for anger increased with age and girls masked their emotion more than boys. The studies by Cole (1986) and Underwood et al., suggest that social context affects children's ability to dissemble emotion.

In typically developing children knowledge of emotional display rules is thought to be predictive of prosocial behavior. Denham (1998) states that, "knowing when and when not to show emotions is immeasurably valuable in maintaining social relations" (p. 90). Children who use prosocial display rules receive better sociometric ratings by teachers and peers (Jones, Abbey, & Cumberland, 1998; McDowell & Parke, 2000). In addition, McDowell and Parke found that children who used prosocial forms of display rules were likely to "combine emotion regulation with other behaviors which, in turn, leads to being perceived as more socially competent" (p. 427). Therefore, children who use emotion dissemblance in regards to socially and culturally accepted display rules are more likely to use prosocial behaviors such as sharing, helping, and showing concern.

Garner (1996) examined the relationship between knowledge of emotion display rules and prosocial behavior in 39 low-income fourth and fifth graders. Each participant was administered three emotional knowledge tasks to examine emotional role taking, knowledge of affective attribution, and knowledge of emotion display rules. The participants also self-reported on their relationships with peers and their prosocial behavior was rated by their teacher. Garner found that knowledge of prosocial display rules was predictive of prosocial behavior. Children were scored as using prosocial display rules when they expressed an emotion contrary to their true feelings to protect the feelings of another.

Emotional Competence in Children with LI

Language plays an important role in emotional development. Language allows one to talk about emotional experiences as well as "integrate them across context and compare them with others' representations about emotional experiences" (Saarni, 1999, p. 131). The ability for children with LI to develop emotional competence may be impaired due to the child's deficits in both receptive and expressive language and an inability to talk about emotions. Because of the correlation between language and emotional development, emotional competence in children with LI has recently received more attention. For example, Fujiki et al. (2004) used the *Teacher Behavior Rating Scale* (Hart & Robinson, 1996; TBRS) and the *Emotion Regulation Checklist* (Shields & Cicchetti, 1997) to find that reticent behavior could be predicted by linguistic ability and emotion regulation. This work demonstrated that other factors, interacting with, or in addition to language, have an impact on the social interactions for children with LI. Of particular interest with respect to this study is emotion understanding in children with LI.

Several researchers have examined emotion understanding in children with LI. Spackman, Fujiki, Brinton, Nelson, and Allen (2005) examined the ability of these children and their typical controls to understand emotion as conveyed by facial expression and by music. Spackman et al. found that children with LI did not differ in their ability to identify basic emotions such as happy, sad, and anger from photographs, but were less accurate at identifying surprise and disgust. The errors noted were due to confusion between emotions of the same valence. With respect to emotion conveyed by music, the children with LI identified emotions differently than the typical children. The highest level of agreement was found in identifying music that conveyed the emotion of happiness. Music expressing fear, anger, and sadness had the lowest agreement. Children

with LI confused emotion with a negative valence (e.g., disgust as anger, anger as fear) significantly more often than typical children.

Boucher, Lewis, and Collis (2000) performed four different experiments analyzing the voice processing abilities of children with autism, children with LI, and typically developing children. In one experiment the authors asked each child to name the emotion expressed vocally on a recording and match the emotion to the corresponding photograph expressing the emotion. The children with LI were significantly poorer at identifying and matching the emotions than the children with autism and typical development. Children with LI performed better at identifying emotion vocally expressed than matching them to facial expressions. Typically developing children performed better at matching emotions to facial expressions than identifying vocally expressed emotions. This study provided surprising evidence that children with LI have difficulty understanding and identifying emotions through facial expression.

Another aspect of emotion that may interact with language is emotion inferencing, or the ability to anticipate how someone feels in response to a situation (Ford & Milosky, 2008). Ford and Milosky (2003) examined the ability of kindergarten children with LI to infer emotional reactions in social situations by identifying and labeling facial expressions and by inferring emotional reactions from stories. Twelve children with LI were matched to typical developing peers of the same age. Each child was asked to label pictures depicting four emotions (happy, angry, sad, and mad). They were also asked to infer the emotional reactions of a character in nine stories. Both LI and typical children were able to identify emotions depicted on cards. However, children with LI had difficulty inferring a character's emotion from a story and provided answers of a different

valence (e.g., substitute happy for mad). Ford and Milosky (2003) suggested that these differences in identifying emotion may contribute to social deficits in children with LI.

In a replication of the Ford and Milosky (2003) study, Spackman, Fujiki, and Brinton (2006) examined how well elementary school age children with LI and their typical peers could infer emotions in specific social situations. Each child was presented with a story in which the main character was faced with an emotion-eliciting situation. After hearing the story the child was asked to state the emotion felt by the character and provide a reason for why the character would experience the emotion. Children with LI were less accurate at inferring the emotion experienced and had more difficulty describing emotions appropriately.

In a later study, Ford and Milosky (2008) examined the ability of young children with typical language and children with LI to make emotion inferences online during the process of discourse comprehension. Preschool children with typical language and LI were presented with narrated videos designed to elicit knowledge about a certain emotional state. At the end of each video an emotion drawing that either matched or did not match the expected emotion (based on the video) was presented. Each child was asked to name the facial expression being elicited from the video immediately after the video was presented and response time was recorded. Ford and Milosky found that children with typical language skills had significantly slower response times when the emotion drawing did not match the emotion in the video than when it did match. Children with LI did not differ in response time to the matched or mismatched emotions. These results indicated that children with typical language were making inferences as to what emotion would be presented based on the video, and thus required more processing time

when there was a mismatch. The fact that processing time did not differ in the children with LI suggests that these participants were not making inferences as to the expected emotion.

The ability to dissemble or hide emotion for social purposes may also interact with language in predicting social interactions in children with LI. Brinton et al. (2007) studied the ability of children with LI and their typical developing age-matched peers to dissemble emotion. Ten hypothetical emotion-eliciting situations were presented to each child. After each situation was presented, the child was asked a series of questions to assess the ability to dissemble as well as the child's knowledge of display rules. The groups differed significantly in their judgments regarding the need for dissemblance. They did not differ when asked what their parents would want them to say, however. Brinton et al. suggested that children with LI may not recognize the need to maintain relationships by monitoring emotional display.

As the studies reviewed above show, there is strong evidence that some children with LI have difficulty with emotion understanding. These children have difficulty making inferences of emotion, identifying emotion conveyed by prosody, and in determining when emotion should be dissembled. It is likely that these problems play a role in the social problems commonly experienced by children with language difficulties. In the current study the link between emotion understanding, language, and sociable behaviors was examined. The goal of this study was to determine the extent to which language (as represented by a standardized language test score) and emotion understanding (as represented by dissemblance) influence the ability ratings of sociable behavior in children with LI and their typical peers.

Method

The structured dissemblance task was one of four tasks designed to examine emotion understanding in a larger study involving children with LI. The overall project was supervised by Drs. Martin Fujiki and Bonnie Brinton. All research procedures were reviewed and approved by the Institutional Review Board of Brigham Young University to ensure ethical treatment of human subjects.

Participants

The sample consisted of 58 children (34 boys, 24 girls). Twenty-nine of the children were diagnosed with LI and 29 had typical language development. Participants were chosen from fourteen different elementary schools in the Jordan, Alpine, and Nebo school districts. Each child with LI was age- and gender-matched to a typically developing child in his or her classroom. Teachers of the children involved were asked to complete a short questionnaire about each child's social competence in the classroom.

Children in both groups were mainly from a White, middle-class population. Socioeconomic status data of the participants was obtained from block group data from the 2000 U. S. census (U.S. Census Bureau, 2008). The average percentage of the population below the federal poverty level in the neighborhoods surrounding the fourteen schools was 3.65% ($SD = 3.47$) with a range from 0% to 11%.

The *Comprehensive Assessment of Spoken Language* (CASL; Carrow-Woolfolk, 1999) was used to verify group membership in children with LI and to rule out language difficulty in the typically developing children. The CASL is a standardized, norm-referenced test used for children and adolescents between the ages of 3 and 21 years. It includes subtests measuring lexical/semantic, syntactic, supralinguistic, and pragmatic

linguistic skills. It also provides an overall composite score of language ability. The composite score was used as the measure of language for analysis in this study.

The *Universal Nonverbal Intelligence Test* (UNIT; Bracken & MaCallum, 2003) is a standardized, norm-referenced nonverbal test of intelligence, designed for children between the ages of 5 and 17 years. The UNIT was used to assess general intelligence in all of the participants. The UNIT was used to verify participation in this study.

Children with LI. In the group with LI, there were 12 females and 17 males, with an average age of 9;0 (*SD* = 12.0 months), and an age range of 7;1 to 10;10. Participants with LI were chosen based on a language standard score at least one standard deviation below the mean on the CASL (Carrow-Woolfolk, 1999). Children with LI could not have a diagnosis of emotional disturbance or behavioral disorder based on school placement and teacher report. Children were also required to receive a standard score at or above 75 as measured by the UNIT (Bracken & MaCallum, 2003). The mean age and mean scores for the UNIT and CASL are reported in Table 1.

Children with typical language skills. Participants with typical language skills were matched by chronological age to the child with LI. The age of the typical language child was required to be within six months of the child with LI. The child also had to be the same gender and a member of the same classroom as the child with LI. In the typically-developing language group, there were 12 females and 17 males, with an average age of 8;9 (years; months; *SD* = 22.4 months), and an age range of 7;1 to 10;10. These children could not be enrolled in services for academic, behavioral, or communication problems. Several possible typical matches for each LI participant were identified. The match was randomly selected from the permission slips that were

Table 1

Mean Age, Language, and IQ Standard Scores for Children with Language Impairment

(LI) and Typically Developing Children

	LI		Typical	
Test	M *(SD)*	Range	M *(SD)*	Range
UNIT IQ Standard Score	96 (9)	82-116	104 (12)	84-141
CASL Composite Score	78 (6)	68-90	101 (9)	82-119
Chronlogical Age	9;0 (12.0)	7;1-10;10	8;9 (22.4)	7;1-10;10

Note. Standard deviations appear in parentheses. IQ = intelligent quotient; CASL =

Comprehensive Assessment of Spoken Language (Carrow-Woolfolk, 1999); UNIT =

Universal Nonverbal Intelligence Test (Bracken & McCallum, 2003). For each test, the

mean standard score is 100 with a standard deviation of 15.

returned. These children were also required to score at or above the typical mean on both the UNIT and CASL. The mean age and mean scores for the UNIT and CASL are reported in Table 1.

Teachers. Classroom teachers of both the children with LI and the typical children completed a social skills questionnaire, a short version of the TBRS (Hart & Robinson, 1996), that included questions focusing on the behavioral domains of withdrawal, aggression, anxiety, and sociability. The domain of sociability was divided into two subtypes: prosocial and likeability. Prosocial behavior is exhibited when a child voluntarily does something positive for another child. On the TBRS, this subtype consisted of five items which examined whether the child offered to help other children, provided comfort, or shared various items with others. Likeability, or how well the child gets along with and is liked by others, consisted of five items designed to examine whether the child controlled his or her temper, if the child was easily accepted into ongoing interactions, and if peers enjoyed being with the child.

Measures

The following measures were used to assess dissemblance, language, and sociable behavior.

Dissemblance. Structured dissemblance was assessed using methods based on Brinton et al. (2007). Participants were presented with 10 hypothetical stories in which the main character was faced with a situation that would elicit an emotion such as happiness, sadness, fear, anger, or disgust. The stories were written using age-appropriate language. Pictures were used to enhance understanding. The main character in the story had a gender neutral name (Chris) and was draw in such a way that gender could be manipulated in the scenarios to match the gender of the child being assessed (e.g., if the

child being assessed was female then the character in the story was referred to as a female). The story was also structured so that the main character could be male or female.

Each emotion-eliciting story focused on a character named Chris. The following is an example of a story designed to elicit happiness:

This is Chris and his/her mom. Chris' mom loves to go to the museum. Chris does not want to go to the museum. He/She thinks that the museum is boring. Mom wants to take Chris to the museum. Mom and Chris get in the car to go. The car won't start. They cannot go to the museum.

The examiner read the story and asked each participant four questions. The first question was asked to assess comprehension of the child's understanding of the story. Second, an emotion question was asked: "How does Chris feel?" This question assessed the child's ability to judge what emotion Chris would experience. As long as the emotion was of an appropriate valence it was considered as acceptable. For example, if a child responded that Chris would feel mad when the story was designed to elicit sadness, the item was counted as a correct answer because the two emotions were of the same valence. Either emotion would need to be dissembled. Based on previous work, the two scenarios designed to elicit happiness would result in the need to dissemble even if the child selected an incorrect valence (Brinton et al., 2007). Despite this, valence errors for these scenarios were still scored.

A third question was asked to determine if the child would recommend that the child in the story dissemble the emotion. The participant was prompted with a second question if the response did not address emotion ("What should Chris say about his/her feelings?"). The scores used in the current study were based on responses to this question.

Finally, each participant was asked a question about display rules to determine if the child recognized that this was a situation that required dissemblance. The question was phrased as, "What would Chris' parents want Chris to do?" It was assumed that most parents would teach their children to hide certain emotions for self-protective or prosocial reasons. However, it was possible that some parents would teach their children to be honest regardless of the social outcome. This question provided an indication of how often the child's dissemblance (or failure to dissemble) would line up with their perception of what a parent would want them to do (See Appendix A for a list of the stories used).

It should be noted that the participants were given the choice of responding verbally by labeling the emotion or by pointing to cards with the emotions portrayed graphically. For example, happiness was depicted by a picture of a sun with the word happiness printed below. A sixth card with a question mark was also presented to the child for a response of "I don't know" or "I'm not sure." Children were trained to use these cards before the experimental testing was initiated. In order to ensure that the use of the cards did not complicate the task, a pilot study was conducted with two groups of preschool children. The preschoolers in the pilot study were given a simplified task of identifying emotions depicted in a story. Statistical comparisons using z-tests of proportion showed no significant differences in the performance of the two groups (see Spackman et al., 2006).

Scoring was based on conventions developed by Brinton et al. (2007). For the question regarding dissemblance ("What should Chris say?"), a score of 1 was given if

the child suggested dissemblance and a score of 0 if the child suggested display. This score was used in the analysis to represent the child's ability to dissemble emotion.

Sociable behavior. Sociable behavior was assessed using a shortened version of the TBRS (Hart & Robinson, 1996). Each of the 74 items was rated on a three-point scale by the classroom teacher filling out the questionnaire, indicating if the child never, sometimes, or very often exhibited the behavior. Initially, the TBRS was designed to assess social behavior in preschool children. However, Fujiki, Brinton, Morgan et al. (1999) measured the reliability of the TBRS for assessing behavior of children between the ages of 5;6 and 12;0. A two-factor analysis and a final principal components analysis was performed yielding two reliable factors with eigenvalues greater than 1, which accounted for 61% of the item variance. These analyses established that the TBRS was an effective evaluation tool for school-age children; therefore, the TBRS was used to assess each participant's social functioning.

The shortened version of the TBRS (Hart & Robinson, 1996) consisting of 74 items was completed by the teacher for each participant in their classroom. Ten of the 74 items rated by teachers were used as the measure of sociability. Two subtypes of sociability were used in the current study: prosocial behavior and likeable behavior. The following statements are examples of prosocial behaviors rated by the child's classroom teacher: helps other children who are feeling sick, offers to share materials with peers, and comforts a child when crying or upset. Examples of likeability behavior include controls temper in conflict situations with peers, other children like to be with the child, and is cooperative during rough and tumble play.

Analysis

A multivariate analysis of variance (MANOVA) was performed to determine differences between children with LI and their typical language peers in dissemblance, likeability, and prosocial behavior. Furthermore, hierarchical regression analyses were used to examine the links between language, emotion understanding as represented by dissemblance, and the two major subtypes of sociable behavior: prosocial and likeability (impulse control).

Results

The raw scores for language, dissemblance, likeability, and prosocial behaviors are presented in Table 2. Multivariate analysis of variance (MANOVA) was used to investigate the individual and interactive contributions of gender and language status to likeability, prosocial behavior, and dissemblance. The likeability, prosocial behavior, and dissemblance scores were the dependent variables. Sex and language status were the independent variables. Results showed a significant main multivariate effect for language status ($F(3,51) = 8.749$, $p < .001$), but not for gender ($F(3,51) = .495$, $p = .687$), nor for the interaction of sex by language status ($F(3,51) = .890$, $p = .452$).

Subsequent univariate analyses indicated that there were significant effects for LI for likeability, $F(1, 53) = 19.086$, $p < .001$, $\eta^2 = .265$, prosocial behavior, $F(1, 53)$, $p < .001$, $\eta^2 = .225$, and dissemblance, $F(1, 53)$, $p < .009$, $\eta^2 = .123$. As seen in Table 3, children with LI scored lower on likeability, prosocial behavior, and dissemblance.

To investigate whether dissemblance mediated the relationship between LI and social adjustment variables (likeability, prosocial), procedures outlined by Baron and Kenny (1986) and others were followed (Mackinnon, 1994; Mize, Pettit, & Meece, 2000). As shown in Table 3, the independent variable (language status) was correlated with the mediator (dissemblance), as well as with the dependent variables (social adjustment, as measured by likeability and prosocial behavior). Also, the association between the potential mediator (dissemblance) and the dependent variable (social adjustment) was significant.

Since all three paths involving the independent variable, the mediating variable, and the dependent variables were significantly associated, this allowed for further testing as to whether dissemblance mediated the relationship between LI and social adjustment

Table 2

Mean and Standard Deviations of Likeability, Prosocial, and Dissemblance Scores in

Children with LI and Typical Language Peers

Behavior	Children with LI		Typical Children	
	M	*SD*	*M*	*SD*
Language	78	6	101	9
Likeability	6.51	.39	8.90	.39
Prosocial	5.26	.49	7.99	.49
Dissemblance	2.12	.50	4.07	.49

Note. Higher scores indicate higher levels of behavior.

Table 3

Mediator Analysis of Dissemblance, Likeability, and Prosocial Behavior

	Language	Likeability	Prosocial
Likeability	.428**		
Prosocial	.389**	.586**	
Dissemblance	.392**	.334*	.278*

Note. *p < .05   **p < .01   ***p < .001

(Baron & Kenny, 1986). Two hierarchical regressions were conducted to formally test this hypothesis, with likeability and prosocial behavior as social adjustment dependent variables, respectively. The effect of gender was also examined and controlled for in these analyses by entering this variable on the first step of the equation. Dissemblance was entered on the second step of each equation, and language status was entered on the third step. Interactions of language by dissemblance, gender by dissemblance, and gender by language were entered on step 4. As seen in Table 4, the association between language and social adjustment remained significant after controlling for dissemblance in both analyses. This indicated that dissemblance did not fully mediate the relationship between language status and social adjustment for the sample as a whole.

It was of note that the interaction effects were not significant, including the gender by language status interaction when tested separately. This suggested that dissemblance may mediate the relationship between language status and likeability when controlling for gender. To examine this possibility, separate regression analyses were then conducted within each gender, with dissemblance and language status entered on steps 1 and 2 of each regression respectively. The significant association between language status and likeability dropped out for girls ($\Delta R^2 = .106$, $\Delta F = 2.95$, $p = .101$), but not for boys ($\Delta R^2 = .265$, $\Delta F = 12.47$, $p < .001$). This suggested that dissemblance mediated the relationship between language status and likeability for girls, but not boys. Findings for prosocial behavior showed that language status still predicted prosocial behavior after controlling for dissemblance for both boys and girls ($\Delta R^2 = .133$, $\Delta F = 4.83$, $p < .05$; $\Delta R^2 = .231$, $\Delta F = 7.73$, $p < .05$ respectively). This indicated that

Table 4

Hierarchical Regressions Performed on Likeability and Prosocial Behavior:

Dissemblance and Language Predictors

		Sociability Subtype							
		Likeability				Prosocial			
Step	Variable	R²	R²inc	β	t	R²	R²inc	β	t
1.	Gender	.006	.006	.503	1.367	.019	.019	.006	.015
2.	Dissemblance	.116	.110*	.080	.134	.094	.075*	.114	.181
3.	Language	.309	.193***	.984	2.493	.252	.159***	.443	1.066
4.	Interactions	.334	.025			.261	.009		
	Gender x Dissemblance			.192	.457			.213	.481
	Gender x Language			-.695	-1.317			.081	.145
	Dissemblance x Language			-.117	-.244			-.222	-.440

Note. *p < .05   **p < .01   ***p < .001

dissemblance did not mediate the association between language status and prosocial behavior for boys or girls.

To test the moderation hypotheses, interactions of language by dissemblance, gender by dissemblance, and gender by language were entered in a fourth step of the hierarchical regression. However, the interaction effects were not significant, including the gender by language status interaction when tested separately.

Discussion

The goal of this study was to examine the complex relationship between sociability and emotion understanding in children with LI. The main focus of my research was to determine the extent to which emotion understanding, as represented by dissemblance, and language level, as represented by the CASL, explain sociability in children.

The social difficulties experienced by children with LI are well documented. It is generally assumed that poor language skills play a major role in the development and evolution of these problems. However, there is reason to believe that other variables interact with language to underlie the social problems these children experience. One likely candidate is emotion understanding, which has been shown to be a critical component for successful social interactions in typically developing children (Denham et al., 2002). Because emotion understanding is a broad domain, it was necessary to select a specific measure to represent this ability. Dissemblance was chosen because it is a relatively complex emotion understanding task. Additionally, it has recently been reported that children with LI have difficulty dissembling emotion (Brinton et al., 2007). Children with LI do not appear to comprehend the impact that displaying emotion can have on relationships at the same level as their typical language peers.

Sociability was the dependent measure in this study. Sociable skills such as comforting others or being slow to anger are important to social interaction and have been associated with peer acceptance. Sociability has also been shown to be problematic in children with LI, as indicated by teacher ratings (Fujiki et al, 1999; Hart et al., 2004). Sociability was thus judged to be an important indicator of social competence. Two subtypes of sociable behavior, likeability and prosocial, were selected for study.

Links Between Language, Dissemblance, and Sociability

The initial analysis of the data compared language (the CASL overall score), dissemblance, and sociability (as measured by likeability and prosocial ratings) in children with LI and their typically developing peers. As expected, children with LI scored lower than their typical peers on language ability. The mean scores of children with LI were more than one standard deviation below the mean for the normative sample.

Based on past research, it was also expected that children with LI would perform more poorly than children with typical skills on the sociability measures. Results were again consistent with past research (Fujiki et al., 1999; Hart et al., 2004). Teachers rated children with LI lower in likeability and prosocial behavior on the TBRS, reporting that children with LI were less likely to offer assistance or share, provide comfort to a peer, show sympathy, and were less well accepted by other children.

Children with LI also scored lower on the dissemblance task, consistent with results from Brinton et al. (2007). The children with LI indicated that emotion should be dissembled less often than their typically developing peers. As indicated by Brinton et al. (2007), the children with LI did not appear to fully comprehend the potential impact of displaying emotion on social relationships.

The next step in the analysis examined whether dissemblance mediated the relationship between language and the two subtypes of sociability. It was found that for the sample as a whole, dissemblance did not mediate the relationship between language and sociable behavior. This finding was not surprising as past research has demonstrated similar results; language is a very important indicator of sociable behavior (Hart et al., 2004). Expressive language skills are necessary for several sociable behaviors such as

offering assistance, sharing, and comforting peers. Sociability also includes approaching new situations and people, which requires positive language skills.

Additionally, as part of the regression analysis, gender was included in the first step of the equation. Results provided evidence that dissemblance may mediate the relationship between language and likeability within gender. Further regression analyses within each gender showed that dissemblance mediated the relationship between language and likeability for girls, but not boys. Several likeability behaviors were important: others enjoy being with and talking to the child, is cooperative during rough and tumble play, and controls temper. McDowell and Parke (2000) found that children who use emotion dissemblance are more likely to use prosocial behaviors. Therefore, girls who do not dissemble emotion are less likely to use prosocial behaviors that promote likeability. Also, other children may not like to be around a child who does not dissemble emotion and does not understand the impact of displaying emotion on friendships. It was indicated that dissemblance may mediate the relationship between language and likeable skills for girls. If this finding can be replicated it would suggest that when providing language intervention for girls, training in emotion understanding and social functioning would be particularly appropriate. Emotion understanding training might be taught to boys according to individual need and circumstance.

Findings for prosocial behavior indicated that language remained a significant predictor for both boys and girls. Dissemblance did not mediate the relationship between language and prosocial behavior. These findings were not surprising since most prosocial behaviors such as helping, sharing, and comforting a peer require positive expressive and receptive language skills.

Suggestions for Future Research

The current study examined a specific aspect of emotion understanding, dissemblance, to predict sociable behavior in children with LI and their typically developing peers. Because emotion understanding encompasses more than dissemblance, caution should be taken in generalizing these results. Measuring other aspects of emotion understanding, or even measuring dissemblance in a different way, might produce differing results. In this study, dissemblance was measured by asking children to indicate what a character should do in structured, hypothetical scenarios. It is possible that children would perform differently if confronted with the need to dissemble in a naturalistic situation. In future work, other measures of emotion understanding should be used to provide a more comprehensive view of the impact that emotion understanding and language have on sociable behavior.

Teacher ratings of behavior were the only measure of sociability used in this study. Future research could have parents or others who know the child well rate sociability using the TBRS. It might also be possible to use other sociometric rating scales instead of, or in conjunction with, the TBRS to further examine the sociability of children with LI.

This study used a sample of children from Salt Lake and Utah Counties in Utah. Display rules, which govern dissemblance, vary according to local standards; therefore, the children in this study may have responded differently than children from a different region of the country. Future research could include children from diverse backgrounds and locations to determine how the results could be generalized to more children.

Conclusions

The results from this study suggest that the relationship between social and emotional development is complex in children with LI. Children with LI consistently performed more poorly than typical peers on measures of language, sociability, and emotion understanding. Language was a strong predictor of sociable skills. However, the relationship between language and likeabilty was mediated by dissemblance for girls. It may therefore be the case that the social difficulties girls with LI experience in likeability are influenced by their emotional competence. Further research is needed to explore the relationship between language, emotion, and social development in children with LI. Particular consideration should be given to gender.

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Appendix A

Hypothetical Social Scenarios

1. This is Chris. This is Chris' class. The whole class is going to the swimming pool. The teacher tells all the kids to jump off the high dive. The other kids are excited to jump off the high dive. But Chris thinks the diving board is very high in the air. He/She thinks he/she will get hurt. (FEAR)

2. This is Chris. This is Chris' favorite aunt. Chris' favorite aunt comes to visit him/her. Chris' aunt brings him a present for his/her birthday. Chris really wants a new scooter. Chris opens the present. It is a shirt. Chris does not want a shirt. (SAD)

3. This is Chris. This is Chris' best friend, Taylor. Chris likes to play with Taylor every day. Chris and Taylor are playing with water balloons. Taylor throws a water balloon right at Chris' face. It hurts a lot. (ANGER)

4. This is Chris and his/her mom. Chris' mom loves to go to the museum. Chris does not want to go to the museum. He/She thinks that the museum is boring. Mom wants to take Chris to the museum. Mom and Chris get in the car to go. The car won't start. They cannot go to the museum. (HAPPY)

5. This is Chris. This is Chris' favorite uncle, Bob. Chris gets to eat dinner at Uncle Bob's house. Uncle Bob makes chocolate cake. He gives Chris a big piece of cake. Chris takes a bite of the cake. The cake tastes really nasty. (DISGUST)

6. This is Chris. This is Chris' grandma. Grandma knitted a sweater for Chris for his/her birthday. Grandma worked very hard on the sweater. But Chris thinks the sweater is very ugly and he/she does not want to wear it at all. Then Grandma washes the new sweater. It shrinks in the dryer (make gesture for shrinking on the sweater). It is too small for Chris to wear. (HAPPY)

7. This is Chris. This is Chris' mom. Chris' mom always cooks something good for dinner. One day, Chris' mom is sick. She has to stay in bed. The next-door-neighboor, Mrs. Smith, brings dinner for Chris' family. Mrs. Smith brings tuna casserole. Chris thinks the tuna casserole is very yucky. (DISGUST)

8. This is Chris and his/her class. The class is going to Lagoon. There are lots of rides there. The teacher is taking Chris' whole class on the big roller coaster. The other kids love roller coasters. Chris thinks that he/she might fall out of the roller coaster. (FEAR)

9. This is Chris. This is Chris' grandma. Chris wants to be a dinosaur for Halloween. He/She wants his/her costume to be really scary. Grandma has been working for weeks on Chris' Halloween costume. Grandma finishes the costume and shows it to Chris. It is a Barney costume. (SAD)

10. This is Chris. This is Chris' good friend, Lee. Chris and Lee are finding seats in music class. Chris starts to sit down. Lee pulls Chris' chair out from under him/her. Chris falls on the floor and it hurts a lot. (ANGER)