CLOSE RELATIONSHIPS

Close Relationships in Adolescents With and Without a History of Specific Language Impairment

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Abstract

Purpose: Engagement in close friendships and romantic relationships becomes particularly salient in adolescence. This study examined the influence of language, behavioral, and social variables on the level of emotional engagement experienced by adolescents with and without a history of specific language impairment (SLI). Method: Ninety adolescents with SLI and 91 adolescents with typical language abilities (TD) completed two assessment sessions between the ages of 16 and 17. Results: The group with SLI had significantly lower emotional engagement scores than the group with TD. Some 24% of adolescents with a history of SLI were judged to have poor emotional engagement in close relationships, compared to only 2% of the adolescents with typical language abilities. A regression analysis found language ability, prosocial behavior, and shyness were concurrently predictive of level of emotional engagement in close relationships. Conclusions: Some adolescents with SLI may be less emotionally engaged in their close relationships than their typically developing peers.

Keywords: Specific language impairment, adolescents, social skills

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The development of intimacy and emotional closeness in relationships is an important task of adolescence (Berndt, 1982; Paul & White, 1990; Smetana, Campione-Barr, & Metzger, 2006), and most teenagers have at least one close or best friend (Hartup & Stevens, 1999). Romantic relationships also emerge during the teenage years and by late adolescence most young people have had some degree of romantic involvement (Laursen & Williams, 1997; Zimmer-Gembeck, 2002). Increased emotional investment, such as emotion sharing, emotional support, and empathy, reflects the intimacy and closeness of relationships such as best friendships in adolescence (e.g. Buhrmester, 1990; Meeus, Branje, van der Valk, & de Wied, 2007; Paul & White, 1990). In this study, we were interested in whether adolescents with a history of specific language impairment (SLI) and a comparison group of young people with typical development (TD) are involved in close friendships and romantic relationships. As emotional experiences play a key role in close relationships, we were also interested in understanding "emotional engagement", that is, the feelings adolescents experience and share in their close relationships (e.g. has he/she ever felt sad for his/her friend?). Thus, the present investigation also examined emotional engagement in close friendships and romantic relationships in adolescents with a history of SLI and their peers with no language difficulties.

Close Relationships

Close friendships help maintain positive self-esteem and are important for psychosocial adjustment (Bagwell et al., 2005; Bishop & Inderbitzen, 1995). Intimacy of friendship was found to be consistently and moderately correlated with adjustment and competence in 13- to 16-year-olds, but this relationship was less consistent in

preadolescents (Buhrmester, 1990). This suggests that the ability to establish close intimate relationships may be especially important for socioemotional adjustment in adolescence. Furthermore, it has been suggested that close relationship skills are learned in best friend relationships and are generalized to later intimate and romantic relationships (Meeus et al., 2007). In addition to fostering the skills and emotional attributes that underpin intimate commitments, close friendships in adolescence provide context and lead to opportunities for the emergence of romantic partnerships (Connolly, Furman, & Konarski, 2000; Zimmer-Gembeck, 2002).

Romantic relationships are marked by their intensity, especially their emotional intensity, and involve expressions of affection and (expectation of) sexual activity (Collins, 2003). Having a romantic relationship of good quality in adolescence is linked to positive self-esteem and increased social competence (Harter, 1999; Zimmer-Gembeck, Siebenbruner, & Collins, 2001). These early romantic relationships provide an environment in which adolescents can further develop the ability to be intimate and explore the self-concept (Montgomery, 2005; Paul & White, 1990). Thus, it seems that both close friendships and romantic relationships in adolescence are important for the development of future close and intimate relationships.

What may Influence Engagement in Close Relationships?

Close friendships entail particular communicative demands. Talking - particularly self-disclosure and the sharing of thoughts, emotions, and experiences with each other - are important aspects (Deutsch, Sullivan, Sage, & Basile, 1991; Steinberg & Morris, 2001). Talk becomes an increasingly important activity for adolescents and their friends. As they get older, teenagers spend increasingly more time talking to peers, and older girls (14 to 15 years) spend on average 9 hours per

week “just talking” to friends (Raffaelli & Duckett, 1989). Talking with friends can be an important context for coming to terms with the complexities and contradictions of adolescent gender role development and the formulation of views about how to deal with the opposite sex (Korobov & Bamberg, 2004; Richards & Larson, 1989). Communication skills such as initiating interactions, self-disclosure, listening, and responding support the development of intimacy in friendships (Paul & White, 1990). Yet, despite the natural prevalence of talking and communicating among adolescent peers, surprisingly little research has directly examined the role of language ability in the development and maintenance of close relationships. The ability to use language effectively may be important for engaging emotionally in close friendships and romantic relationships.

How an individual behaves towards others is also important for close friendships. We expect those we regard as good friends to treat us in positive ways. Prosocial behaviors, such as helping and sharing, are characteristics of high quality friendships among young people (Berndt, 1982). In contrast, negative behavior, such as aggression, is associated with low quality friendships (Berndt, 2002; Cillessen, Jiang, West, & Laszkowski, 2005). A tendency towards prosocial behavior should therefore support engagement in close friendships, whereas a tendency towards problem behavior is likely to be a hindrance or barrier.

Other aspects of social disposition, such as shyness and sociability, affect social interactions and friendships generally, and are likely to impact on close relationships. Shyness is conceptualized as discomfort and inhibition in the presence of other people (Cheek & Buss, 1981; Jones, Briggs, & Smith, 1986). Shyness inhibits interpersonal communication and the development of interpersonal relationships; shy individuals often isolate themselves from the company of others

(Jones et al., 1986). A recent study found that although shy/withdrawn children were as likely as non-shy children to have a mutual best friend, they reported less positive best friend experiences than non-shy peers (Rubin, Wojslawowicz, Rose-Krasnor, Booth-LaForce, & Burgess, 2006). Shyness affects the development and maintenance of close friendships into adulthood (Nelson et al., 2008). Shyness may therefore negatively affect close relationship engagement in adolescence. Sociability is described as a preference for being with others rather than being alone (Cheek & Buss, 1981), and is often studied in conjunction with shyness. Individuals who are not sociable have low motivation to interact socially, and may therefore have limited close relationships.

It is often assumed that females express and experience more intimacy in their relationships than males. Compared to males, females describe their friendships more frequently as close (Moore & Boldero, 1991), and report more intimacy in their romantic relationships (Montgomery, 2005). However, as noted by Clark and Reis (1988), research findings in this area have been inconsistent with some studies finding either no gender difference or a greater level of intimacy among males. Reviews suggest that females do appear to have closer and more intimate friendships than males, but caution that males and females also have different patterns of friendships which makes the interpretation of any gender differences more complex (Berndt, 1982; Rose & Rudolf, 2006).

Close Relationships and Specific Language Impairment

Specific language impairment (SLI) is a developmental disorder involving significant language impairments in the context of normal cognitive ability, hearing, and neurological status (Bishop, 1997; Leonard, 1998). SLI is usually detectable in childhood but can persist into adolescence and adulthood (Clegg, Hollis, Mawhood, &

Rutter, 2005; Stothard, Snowling, Bishop, Chipchase, & Kaplan, 1998). Little is known about the close relationship experiences of individuals with SLI. In this study, typically developing adolescents are compared to a distinct group of adolescents with a known history of SLI. This provides a good opportunity to examine specifically the role of individual differences in language ability in close relationship engagement.

Children and young people with SLI experience social difficulties including poor social competence (Marton, Abramoff, & Rosenzweig, 2005; McCabe, 2005), and peer and friendship difficulties (Durkin & Conti-Ramsden, 2007; Fujiki, Brinton, & Todd, 1996). In a study of eight children with SLI, five reported no reciprocal best friendships in class (Fujiki, Brinton, Hart, & Fitzgerald, 1999). It is possible that the social difficulties associated with SLI extend to close relationships in adolescence.

There is evidence that school-age children with SLI have difficulties inferring emotional reactions in specific social situations when compared to age-matched peers, and that younger children with SLI (5 – 6 years) sometimes misjudged the valence of the emotion that a character might feel (Ford & Milosky, 2003; Spackman, Fujiki, & Brinton, 2006). In addition, Brinton, Spackman, Fujiki and Ricks (2007) found that compared to typically developing children, children with SLI were less able to judge when it was socially appropriate to hide an experienced emotion. This research suggests that children with SLI may have difficulties understanding emotions in social situations, particularly predicting the emotional responses of peers. Such difficulties may have an impact on the social interactions of children with SLI, including their close friendships. However, in a study of conflict resolution strategies, children with SLI were as likely as typically developing children to predict that friends would have a positive reaction following a prosocial strategy (Timler, 2008). It is important to note that similar research with adolescents with SLI has not been carried out so we do

not know if emotional understanding poses a similar problem for relationships in the teenage years.

Although close relationships have not (to the authors' knowledge) been studied in adolescents with SLI, there is some evidence that adults with SLI have difficulties in this area. A study of men in their twenties with a history of SLI found that 12 of the 19 participants had some experience of friendship, but only five had what would be considered close friends (Howlin, Mawhood, & Rutter, 2000). Seventeen of these individuals were followed up in their thirties, by which stage half had a limited range of friendships (Clegg et al., 2005). In addition, the adults with SLI were found to have had fewer romantic relationships compared to their siblings with no language difficulties (Clegg et al., 2005). More recently, a study including 19 adults with SLI found a substantial proportion of these individuals had no close friendships (21%), and almost half had not been involved in a romantic relationship (Whitehouse, Watt, Line, & Bishop, 2009). These studies suggest a disadvantage to adults with SLI in respect of forming and/or maintaining close relationships, though there is also a degree of heterogeneity, with some reporting successful outcomes.

The social difficulties prevalent in SLI, and the research findings relating to close relationships and this impairment, lead to the expectation that adolescents with a history of SLI may have fewer close relationships and difficulties engaging in them. The significant language limitations characteristic of SLI may have a negative impact on engagement in peer relationships (Asher & Gazelle, 1999), including close friendships and romantic relationships. Other potential associates of the ability to form and maintain close relationships (prosocial and difficult behavior, shyness, and sociability) are also areas of weakness for children and young people with SLI. Compared to typically developing children, children with SLI show less prosocial

behavior (Fujiki, Brinton, Morgan, & Hart, 1999; Timler, 2008) and more behavior problems, particularly internalizing behavior problems (Fujiki, Brinton, Isaacson, & Summers, 2001; Redmond & Rice, 1998). The behavioral profile of adolescents with SLI may affect their emotional engagement in close relationships. A recent study of adolescents with and without language impairments found that prosocial behavior was associated with good friendship quality and behavior problems were associated with poor friendship quality (Durkin & Conti-Ramsden, 2007).

There is also evidence that individuals with SLI may experience more shyness than other children. Reticent behavior, a construct similar to shyness (motivated to interact but avoid and feel anxious in social interactions), has been observed in children with SLI between the ages of 5 and 12 (Fujiki, Spackman, Brinton, & Hall, 2004; Hart, Fujiki, Brinton, & Hart, 2004). Recently, adolescents with SLI were found to be significantly more shy than their typically developing peers (Wadman, Durkin, & Conti-Ramsden, 2008). If adolescents with a history of SLI are shy, then this may impact on their opportunities and skills to establish close relationships. This is not to propose, however, that adolescents with SLI lack motivation to interact and to form enduring relationships; Wadman et al. (2008) found no difference between those with SLI and those with typical development on a measure of sociability (desire to interact).

Individuals with SLI have language limitations and they may also exhibit social and behavioral difficulties, all of which may have a negative impact on their close relationships. What is less clear is which of these areas of functioning is more closely associated with level of emotional engagement in close relationships in adolescence. Evidence in this respect is important both in terms of informing our

broader understanding of intimate relationship development and in terms of identifying specific skills areas for intervention and support.

The Present Study

This investigation focuses on the adolescents' own perceptions of their close relationships. The close relationship questions were selected with the aim of examining involvement in close friendships and romantic relationships, and also level of emotional engagement in these close relationships. We were interested in close friendships in adolescence because these friendships help to prepare adolescents for adult friendships and intimate relationships (Sullivan, 1953; Zimmer-Gembeck, 2002). We were also interested in romantic relationships, particularly as the development of romantic relationships in adolescence usually takes place within the context of the existing peer network and close friendships (Connolly et al., 2000; Zimmer-Gembeck, 2002). It is thought that young people further develop the ability to be intimate within their early romantic relationships (Paul & White, 1990). Thus, the extent to which adolescents are emotionally engaged in close friendships and romantic relationships may be an important indicator of their motivation and capacity to engage in close relationships in the future.

The first aim of the study was to compare emotional engagement in close relationships in adolescents with a history of SLI and typically developing adolescents. As young people with SLI often experience conversational, social, and behavioral problems from childhood, it was expected that adolescents with SLI would have poorer emotional engagement in close relationships than peers with typical language abilities. The second aim of the study was to examine the contribution of language (expressive and receptive language), behavioral (prosocial and difficult behavior) and social (shyness and sociability) variables to emotional engagement in

close relationships in adolescence. The behavioral variables examine level of difficult behavior (which may include conduct, hyperactivity, peer and/or emotional problems) and level of prosocial behavior (e.g. helping and sharing). The social variables selected examine how an individual feels when he/she interacts socially; feelings of tension/inhibition (shyness) and preference for being alone/with others (sociability). Based on the available literature, it was expected that all three areas of functioning (language, behavioral and social) would have effects. We were particularly interested in the extent to which language ability would contribute to close relationship engagement, over and above the behavioral and social factors.

Method

Participants

Adolescents with a history of specific language impairment (SLI).

The young people in the group with SLI were initially recruited as part of a nationwide longitudinal study of SLI, The Manchester Language Study (e.g. Conti-Ramsden, Crutchley, & Botting, 1997). The original cohort of 242 children represented a random sample of children attending key stage 1 language units (7 year olds) attached to English mainstream schools. Language units are specialized classrooms that cater for children with primary language difficulties (although some children will have co-occurring conditions such as attention-deficit/hyperactivity disorder, ADHD). Children were excluded if they were reported by their teachers to have frank neurological difficulties or diagnoses of autism, hearing impairment or a general learning disability.

In total, 90 participants with a history of SLI participated in this study. These were participants from the Manchester Language Study who consented to complete the assessments relevant to this investigation. There were 62 males and 28 females.

For the first assessment session the age range for the group with SLI was 15;2 to 16;9 (mean age 15;10). At the time of the second assessment, the age range for the group was 16;2 to 18;2 (mean age 17;1).

Although the individuals in this group had all been identified as having significant language impairment in childhood, the profile for these individuals in adolescence was heterogeneous. Sixty-one participants (68%) in the group could be classified as currently impaired; their performance IQs were in the expected range ($\geq$ 80) but one or more language standard score fell below 1 standard deviation of the population mean (< 85). Sixteen participants (18%) had both impaired language scores and PIQ scores (<80). Thirteen participants (14%) had language and PIQ scores within the expected range (PIQ $\geq$ 80, language standard score $\geq$ 85).

The majority of participants with a history of SLI were attending mainstream school (67/90, 74%) at the time of the first assessment session. The remaining 23 attended a special school or unit. Most of those attending mainstream school were receiving some special educational support (45/67, 67%). Thus, the majority of the adolescents in the group with SLI had the opportunity to interact with typically developing adolescents in the mainstream school environment (classroom, break-times, lunchtimes).

Adolescents with typical language ability (TD).

Young people with no history of language difficulties were recruited to take part in The Manchester Language Study at age 16. The adolescents with typical development (TD) were recruited with the aim of having a comparison group that was representative of households in England in terms of household income and maternal education level. Census data from the General Household Survey were consulted (Office of National Statistics, 2001-2002). The participants with TD were matched to

the participants with SLI in terms of age and socioeconomic status (household income and maternal education). No significant differences were found between the group with SLI and the group with TD on these two socioeconomic status indicators: maternal education level, χ^2 (2, N = 172) = 4.43, p = .11; household income band, χ^2 (3, N = 174) = 3.58, p = .31. The adolescents selected for the comparison group had no history of special educational needs or speech and language therapy provision.

In total, 91 adolescents with TD (54 males, 37 females) completed the two assessment sessions between the ages of 16 and 17. For the first assessment session, the age range for the group with TD was 15;2 to 16;7 (mean age 15;11). The age range for the group at the second assessment session was 15;11 to 17;10 (mean age 16;10).

Measures

The following measures were administered as part of a larger battery of tests. The measures were completed by the participants over the course of two assessment sessions. In the first session, the close relationship questions and then the behavior questionnaire were administered. The second session included (in order) the IQ, language, and reading assessments, and the shyness and sociability scales.

Close relationships questions.

Participants were asked eight questions about their close friendships and romantic relationships to which they responded “yes” or “no”. These questions tapped level of emotional engagement in close relationships. In addition to asking the adolescents if they had close friends or romantic partners, we asked about the nature of feelings experienced, including whether they had ever felt basic (primary) emotions about their friends (happiness, sadness), and secondary emotions (excitement, pride) (Ekman, 1992; Parrott, 2001). The adolescents were also asked if they ever trusted

their friend, as trust is regarded as an important element of emotional support in close relationships (Hartup & Stevens, 1997). Lastly, the adolescents were asked about their future with regard to romantic relationships; that is, whether they expect to get married or settle down with a partner (for this question, participants had the option to respond "don't know"). The eight questions were phrased as follows:

1) Do you have any close or best friends?
2) Have you ever been happy about something your friend(s) did for you?
3) Have you ever been sad for your friend(s)?
4) Have you ever been excited with your friend(s)?
5) Have you ever been proud of your friend(s)?
6) Have you ever trusted your friend(s) with secrets?
7) Have you ever had a girlfriend or boyfriend?
8) In the future, do you think you will ever get married or settle down with one person?

A score of zero was given for a "no/don't know" response and a score of one was given for a "yes" response. A factor analysis (principal component analysis) was carried out on the eight close relationship questions. Questions 2 through 8 loaded onto one factor with values of more than 0.32 (note: loadings of 0.32 and above are regarded as meaningful, see Tabachnick & Fidell, 2007). These seven items grouped together to measure a factor we refer to as "emotional engagement in close relationships". 30% of the total variance was explained by this factor. Question 1 did not load strongly onto this factor (factor loading = .17).

The responses to the seven close relationship questions that loaded onto a common factor were summed to create a composite score of emotional engagement in close relationships. High scores indicated a higher level of emotional engagement in

close relationships, and the maximum score was 7. The minimum score was zero indicating a lack of emotional engagement in close relationships. The internal consistency of this composite scale was acceptable; Cronbach's $\alpha = .64$ (Kline, 1999; Nunnally, 1978).

Language, reading and nonverbal ability.

Language ability was assessed using the Clinical Evaluation of Language Fundamentals- 4th edition, CELF-4 (Semel, Wiig, & Secord, 2003), which provides an Expressive Language Index, a Receptive Language Index, and a Core Language Score. Performance IQ (PIQ) was assessed using the Wechsler Abbreviated Scale of Intelligence, WASI (Wechsler, 1999). The Test of Word Reading Efficiency, TOWRE (Torgesen, Wagner, & Rashotte, 1999), was used to assess word reading ability.

Prosocial and difficult behavior.

Prosocial and difficult behavior were assessed using the Strengths and Difficulties Questionnaire (SDQ) – self-report (Goodman, Meltzer, & Bailey, 1998). The SDQ was designed for 11- to 16-year-olds and consists of 25 items describing behaviors, emotions, and relationships. The respondent indicates how true of him or her each item is by responding 0 ("not true"), 1 ("somewhat true") or 2 ("certainly true"). The 25 items are divided into five subscales, five questions per subscale, which give scores for conduct problems (e.g. "I get very angry and often lose my temper"), hyperactivity (e.g. "I am restless, I cannot stay still for long"), emotion problems (e.g. "I worry a lot"), peer problems (e.g. "Other children or young people pick on or bully me"), and prosocial behavior (e.g. "I am helpful if someone is hurt, upset, or feeling ill"). The sum of the scores on the conduct, hyperactivity, emotional problems, and peer problems subtests provided a total difficulties score, used here as an indicator of

difficult behavior. Scores ranged from 0 to 40, with a high score representing more difficult behaviors. The prosocial behavior subscale gave scores between 0 and 10, with a high score indicating more prosocial behavior. The total difficulties scale was found to have good internal consistency with a Cronbach's α of .82 in a sample of young people aged 11 to 16 years (Goodman et al., 1998). In the same sample the prosocial scale had an acceptable Cronbach's α of .65. In the present sample the total difficulties scale had a Cronbach's α of .76 and the prosocial subscale, as in the Goodman study, had a lower Cronbach's α of .55.

Shyness and sociability.

Shyness was assessed with the 12-item Revised Cheek and Buss Shyness Scale (Cheek, 1983), used by Stritzke, Nguyen & Durkin (2004). This scale has been used widely in empirical studies of shyness and was designed to measure tension and inhibition when with others, by assessing how the respondent feels when interacting with strangers and acquaintances. Example items include "I do not find it hard to talk to strangers" and "I am often uncomfortable at parties and other social functions". Participants respond to the questions on a 5-point scale, from 1 ("very untrue") to 5 ("very true"). The maximum score is 60 and a score of 34 or above indicates shyness. The 12-item version has been shown to have high internal consistency in a sample of university students, with a Cronbach's α of .89 (Stritzke et al., 2004). Similar results were found with the sample in this study (Cronbach's α = .89).

Sociability was assessed using the Cheek and Buss Sociability Scale (Cheek & Buss, 1981). This scale was developed alongside the shyness scale to measure preference for being with others rather than being alone. This measure and conceptualization of sociability differs from that used in other studies of children with SLI in which sociability is conceptualized as demonstrating positive social behaviors

(e.g. Fujiki, Brinton, Morgan et al., 1999; Hart et al., 2004). Example items include "I like to be with people" and "I prefer working with others rather than alone". The scale has five items, with responses from 1 ("very untrue") to 5 ("very true"), requiring the respondent to indicate how much he or she wants to be/interact with people. The maximum score is 25, with higher scores representing higher sociability. A reasonable internal consistency (Cronbach's $\alpha = .70$) was found with a sample of university students (Cheek & Buss, 1981), and with the present sample (Cronbach's $\alpha = .75$).

Psychometric profiles.

The mean standard scores for the group with SLI and the group with TD on the language, reading, and IQ measures are given in Table 1. The adolescents with TD had expressive and receptive language scores within the expected range. The participants with SLI had significantly lower expressive language scores and receptive language scores, which fell below the expected range (< 85). The adolescents with SLI had significantly lower mean PIQ scores than the adolescents with TD. Note that groups with SLI are often found to have lower nonverbal IQ than comparison groups (Leonard, 1998). The mean reading ability score for the group with SLI was significantly lower than the mean reading ability score for the group with TD. Nonetheless, the reading scores indicated that both groups had an average reading age of at least 9 years, which was judged to be adequate for completing the scales used in this study.

Procedure

The young people were assessed in a quiet room either at home or school. The standardized assessments of language, IQ, and reading were administered in the manner specified by the test manuals. The SDQ, shyness scale, and sociability scale items, and the close relationship questions, were read aloud to the participants. The

items and response options were also presented visually. Care was taken to ensure participants comprehended the items/questions and the response options. For example, participants were given the opportunity to try out the response options in relation to an unrelated topic such as a statement about food preference (e.g. "I enjoying eating fruit everyday"). Nonetheless, any inconsistent and unexpected responses were checked for meaning, particularly when the items were negatively worded, and extra clarification was given where needed; very few interventions of this kind were required. Ethical approval was obtained from the University of Manchester.

Plan of Analysis

The responses of the participants to the eight close relationship questions are considered individually, by comparing percentages of responses (% "yes", % "no") in the group with SLI and the group with TD. The significance of the associations between language status (SLI vs. TD) and the question responses are tested using chi-square analysis (Fisher's exact test where expected frequencies < 5). The scores on the composite emotional engagement scale are transformed in order to better approximate the normal distribution. Parametric methods are therefore used. Group and gender differences in emotional engagement scores are examined using a two-way ANCOVA (analysis of covariance, controlling for PIQ). Beyond this, differences between the genders are not examined because of the small number of female participants. Note that effect sizes (Cramer's V and η^2) are interpreted according to Cohen (1988).

The potential associates of emotional engagement are first explored by looking at group differences in difficult behavior, prosocial behavior, shyness, and sociability (one-way analyses of variance, ANOVAs). The correlations (Pearson's product-

moment coefficients) between the psycholinguistic, behavioral, and psychosocial variables, and the transformed emotional engagement scores are then calculated. A hierarchical regression is used to examine the possible concurrent predictors of emotional engagement in separate steps. Participants are then classified as having poor emotional engagement scores if they score below a cut-off (2SD below the mean in the TD group). A logistic regression is used to examine the concurrent predictors of having adequate (versus poor) emotional engagement in close relationships.

Results

Close Friendships

The majority of adolescents with SLI (92.2%) and adolescents with TD (98.9%) reported that they had at least one close friend. Seven participants with SLI and one participant with TD reported having no close or best friend(s). The association between language status (SLI vs. TD) and having/not having a close friend was significant (p = .034, two-tailed Fisher's exact test).

The percentages of participants with SLI and TD who indicated that they had felt particular emotions about their close friend(s) are presented in Table 2. Note that the percentages for the group with TD were at or approaching ceiling. The majority of adolescents (SLI and TD) reported experiencing each feeling about their friend(s), although the percentage was lower for the adolescents with SLI for each item. Except for "been proud of your friend(s)", the between group differences were significant (p < .01) and small (Cramer's V ranged from .23 to .25; Cohen, 1988).

Romantic Relationships

Fewer adolescents with SLI indicated they had had a girlfriend or boyfriend (66.7%), compared with the adolescents with TD (85.7%). This association between

language status (SLI vs. TD) and having a girlfriend/boyfriend was small but significant, χ^2 (1, N = 181) = 9.06, p =.003, V = .22.

Of the adolescents with SLI, 68.9% thought they would get married/settle down in the future (31.1% no/don't know). A greater percentage of adolescents with TD (96.7%) thought they would get married/settle down in the future (3.3% no/don't know). This association was moderate and significant, χ^2 (1, N = 181) = 24.66, p <.01, V = .37.

Emotional Engagement in Close Relationships

The mean emotional engagement score for the group with SLI was 5.41 (*SD* = 1.59), and the group's scores ranged from 1 to 7. The group with TD had a higher mean emotional engagement score of 6.54 (*SD* = 0.82), and their scores ranged from 3 to 7. The 95% confidence intervals around these means did not overlap (SLI: 5.08 – 5.74; TD: 6.37 – 6.71).

The distribution of the emotional engagement scores was negatively skewed (skewness = -1.60, *SE* = 0.18). The scores were transformed using $Lg_{10}(K - X)$, where K equals the maximum value of the variable plus one (see Tabachnick & Fidell, 2007). This improved the distribution (skewness = 0.66, *SE* = 0.18) and the transformed emotional engagement scores were used in the analyses below.

A two-way ANCOVA (group x gender) was carried out including PIQ as a covariate (because the group with SLI had lower PIQ scores than the group with TD). There was a significant group difference in emotional engagement $F(1, 176) = 22.83$, $p < .01$, $\eta^2 = .10$. The effect of group was small (Cohen, 1988) accounting for 10% of the variance in emotional engagement scores. The group with SLI had significantly lower emotional engagement in close relationships compared with the group with TD.

Overall, females had a higher mean emotional engagement score (M = 6.20, SD =1.40) than males (M = 5.85, SD = 1.40), but the main effect of gender was non-significant $F(1, 176) = 2.98$, $p = .09$ and the interaction of group and gender was non-significant $F(1, 176) = 0.10$, $p = .76$.

Adequate versus Poor Emotional Engagement in Close Relationships

The participants were classified as having poor emotional engagement if they scored four or less on the emotional engagement composite scale. These were scores more than 2 standard deviations below the expected mean (the mean of the group with TD). Of the adolescents with SLI, 24% were classified as having a poor level of emotional engagement in close relationships. Only 2% of the participants with TD were classified as having poor emotional engagement.

Correlates of Emotional Engagement in Close Relationships

The mean scores for the group with SLI and the group with TD on the behavioral and psychosocial measures are given in Table 3. The group with SLI had a lower mean prosocial score than the group with TD and the difference was small though significant, $F(1, 179) = 9.97$, $p = .002$, $\eta^2 = .05$ (only 5% variance accounted for). The group with SLI had a significantly higher total difficulties mean score than the group with TD, $F(1, 177) = 33.82$, $p < .01$, $\eta^2 = .16$, and this group difference was medium accounting for 16% of variance (note: difficult behavior scores were not available for two participants). The adolescents with a history of SLI were less prosocial and had more behavioral difficulties than the adolescents with TD.

The adolescents with SLI had a higher mean shyness score than the adolescents with TD, and the group difference was medium and significant, $F(1, 179) = 36.18$, $p < .01$, $\eta^2 = .17$ (17% of variance accounted for). There was no significant difference in the sociability scores of the two groups, $F(1, 179) = 1.75$, $p = .19$. The

adolescents with SLI were more shy than the adolescents with TD, but both groups were similarly sociable.

We examined the associations between emotional engagement and the psycholinguistic (expressive language, receptive language, PIQ), behavioral (difficult and prosocial behavior), and psychosocial (shyness and sociability) variables. The transformed emotional engagement scores were used, and they were inverted (i.e. low scores indicate more emotional engagement). Thus, for interpretation, the direction of correlation coefficients given below is reversed. Higher emotional engagement scores were associated with better expressive language (r = -.40) and receptive language (r = -.34), and to a lesser extent with higher PIQ (r = -.22). Higher emotional engagement scores were associated with more prosocial behavior (r = -.36), less difficult behavior (r = .24), less shyness (r = .41), and more sociability (r = -.26). All the correlations were significant (p < .01 level).

Concurrent Predictors of Emotional Engagement in Close Relationships in Adolescence

A regression analysis examined the possible concurrent predictors of emotional engagement in close relationships (see Table 4). The behavioral, psychosocial, and language variables were entered into a hierarchical regression in separate steps (step 1 - PIQ; step 2 - prosocial and difficult behavior; step 3 – shyness and sociability; step 4 – core language ability), in order to examine the unique contribution of language, beyond prosocial behavior and shyness. Expressive and receptive language were highly correlated (r = .89, p < .01), so the core language score was included in the regression model to avoid multicollinearity. The core language score taps both expressive and receptive language ability and was

significantly correlated with emotional engagement, r =-.39, p < .01. The regression model was significant at the final step, $F(6, 171) = 11.46$, $p < .01$.

Percentage of explained variance is based on the adjusted R^2 values obtained. The model at step 1 accounted for 3% of the variance in emotional engagement score, and PIQ was a significant predictor (small effect size). When prosocial and difficult behavior were included in step 2, 14% of the variance in emotional engagement was accounted for, with a medium effect size. Prosocial behavior was a significant predictor in this step. Step 3 accounted for 22% of the variance in emotional engagement and the effect size attributable to the addition of shyness and sociability was small. Shyness and prosocial behavior were significant predictors in step 3. Core language ability was included in the final step, in which 26% of the variance in emotional engagement score was accounted for. The effect of the addition of language ability was small, contributing 4% of unique variance. Language ability was a significant predictor of emotional engagement, in addition to prosocial behavior and shyness.

Given the differences across group in emotional engagement in close relationships, a further regression analysis was carried out, with group status (SLI vs. TD group) included in a final step (coded SLI 1, TD 0). Group status was only a marginal predictor of emotional engagement in close relationships, $\beta = .18$, $p = .059$. This is not unexpected due to the inclusion of language ability in the previous step, which differentiates the two groups to a large extent. Prosocial behavior and shyness were significant predictors in this model. At the final step, this model accounted for 27% of the variance in emotional engagement in close relationships.

As already noted, participants were classified as having poor or adequate emotional engagement. A logistic regression was carried out to examine the potential

concurrent predictors of having adequate or poor emotional engagement in close relationships. As in the linear regression, PIQ, the social and behavioral variables, and core language ability were included in the model. Outcome was coded as 0 (adequate close relationship engagement) and 1 (poor close relationship engagement), and significance levels for entry were set at $p = .05$. Prosocial behavior, shyness, and core language ability were significant predictors of having poor (versus adequate) emotional engagement in close relationships. Having better language ability (odds ratio = 0.94, 95% CI = 0.91 – 0.97) and particularly having more prosocial behavior (odds ratio = 0.59, 95% CI = 0.42 – 0.83) reduces risk of having poor emotional engagement in close relationships. Shyness (odds ratio = 1.13, 95% CI = 1.02 – 1.25) is associated with an increased risk of having poor emotional engagement in close relationships. The odds ratios for language ability and shyness are close to 1 indicating these variables have only a small effect, whereas prosocial behavior has a larger effect in the model.

Discussion

Close Relationships and SLI

The first aim of this study was to compare the close relationship experiences of adolescents with a history of SLI and adolescents with no language difficulties. At present, little is known about the impact persistent language difficulties can have on the development of close friendships and romantic relationships. Over 90% of adolescents, regardless of language status, reported having at least one close or best friend. This is in line with previous estimates that between 80% and 90% of teenagers report having a close friendship (Hartup & Stevens, 1999). In addition, most of the young people reported feeling happy about something the friend(s) did, feeling sad for their friend(s), feeling excited with their friend(s), feeling proud of their friend(s), and

trusting their friend(s) with secrets. However, for each of these questions, a smaller percentage of adolescents with SLI responded positively compared to adolescents with TD. Overall, the majority of adolescents (with and without SLI) had at least one close friend and reported feelings about these friends that reflect some degree of intimacy.

The adolescents from the two groups differed more in their romantic relationship experience and expectations. Around one third of the adolescents with SLI had no experience of a romantic relationship, compared to only 15% of the adolescents with no language problems. With regard to future romantic relationships, fewer of the adolescents with a history of SLI had positive long-term relationship expectations, compared to their peers. Almost all the typically developing adolescents thought that they would get married or settle down with one person in the future compared to 69% of the adolescents with SLI. This difference in expectations is in line with previous findings of lower levels of close relationships and romantic partnerships among adults with histories of SLI in comparison with non-language impaired adults (Clegg et al., 2005). Thus, some adolescents with SLI have not been involved in a romantic relationship and tend to entertain relatively pessimistic visions of their interpersonal futures. It is possible that expectations in turn influence outcomes (if you doubt you will get a date, you may approach the challenge of finding one less competently than more optimistic peers). Future research could test this possibility more directly.

The language difficulties and associated social and behavior problems experienced by individuals with SLI suggested that close relationships may also be an area of weakness. This was partially borne out; the adolescents with a history of SLI as a whole scored less favorably on the measure of emotional engagement in close

relationships compared to the typically developing adolescents. Just under a quarter of adolescents with SLI were judged to have poor emotional engagement scores, compared to only 2% of the typically developing adolescents. This suggests that a proportion of adolescents with a history of SLI are at increased risk of poor emotional engagement in close relationships. However, most have adequate close relationships. Heterogeneity in outcomes, including socioemotional functioning, is characteristic of samples with SLI (Durkin & Conti-Ramsden, 2007; Fujiki, Brinton, Hart et al., 1999). It is important to highlight, nonetheless, that having a language impairment does not guarantee socioemotional difficulties and outcomes for individuals with SLI are often difficult to predict.

Engagement in Close Relationships in Adolescence

A further aim of this study was to examine the contribution of language, behavioral, and psychosocial variables to emotional engagement in close relationships in adolescence. The role of language ability was of particular interest, and this study included individuals with typical language abilities and individuals with histories of language impairment. We found that in addition to the contribution of behavioral and social factors, language ability was concurrently predictive of emotional engagement in close relationships. Talking and conversation are a main activity for close friends in adolescence (Raffaelli & Duckett, 1989), and the development of intimacy involves communication skills such as self-disclosure (Paul & White, 1990). This study suggests that being able to effectively express oneself verbally, and understand what others say, may support emotional engagement in close relationships. It may be, for example, that the ability to express thoughts and feelings to significant others plays an important role in the development of close relationships (although expression of emotions was not examined in the present study). Language ability alone did not

influence level of emotional engagement in close relationships, and in this study we found behavioral and social factors also played a role. Thus, language ability is not the sole factor determining outcomes in the complex arena of interpersonal relationships, but it does contribute.

Prosocial behavior was concurrently predictive of level of emotional engagement. Prosocial behavior is known to be important for friendship quality generally (Berndt, 2002; Cillessen et al., 2005; Durkin & Conti-Ramsden, 2007). These findings suggest that being prosocial is important for emotional engagement in close friendships and romantic relationships too. Helping and sharing behavior may provide the opportunity to interact positively with peers and transform these acquaintances into close intimate friendships or even romantic relationships.

Shyness was a significant predictor of emotional engagement in close relationships, but sociability was not. It may be that shy adolescents find it harder to initiate close relationships because they feel uncomfortable and inhibited with others, and avoid social interactions. Previous studies have found shy children and socially anxious teens have poorer quality close friendships compared with their non-shy peers, particularly in terms of low intimacy and support (La Greca & Lopez, 1998; Rubin et al., 2006; Vernberg, Abwender, Ewell, & Beery, 1992). Shyness may hold back the development of emotional closeness and intimacy that is crucial to close friendships and romantic relationships.

Prosocial behavior, shyness, and language ability were concurrently predictive of level of emotional engagement in close relationships in adolescence. The same factors also emerged as significant predictors of close relationship outcome in a logistic regression. Individuals who have poorer language ability, less prosocial behavior, and experience more shyness are at risk of having poor emotional

engagement in close relationships in adolescence. So, behavioral and social factors are likely to influence close relationship experience, by facilitating their development or exacerbating difficulties. What is also clear is that language difficulties are a risk factor for poor emotional engagement in close relationships in adolescence. In the case of SLI, having good prosocial behavior, such as helping and sharing, is likely to support emotional engagement in close relationships despite the adolescents' significant language difficulties. However, a tendency towards shy behavior (observed in some adolescents with SLI) may be associated with less engagement in close relationships. Further research examining other important characteristics of close relationships, for example, companionship and the provision of support, would be valuable.

Methodological and Clinical Implications

A potential limitation of this study is the 'fuzziness' of the close relationship construct being measured. The measure of emotional engagement was based on a variety of emotions expressed and not how typical that behavior was of the individual reporting or how appropriate the expression was. However, we attempted to operationalize the construct: the questions were developed with a clear theoretical rationale and a factor analysis indicated that the seven questions used to create the composite score loaded onto a common factor with sufficiently high loading items. The findings indicate overall between-group differences and the differences are in the predicted direction.

Nevertheless, future research could usefully employ more elaborate and more specific measures of particular dimensions of close relationships. For example, questions tapping the perspective of friends/peers may be useful in determining whether close relationships are reciprocated (e.g. "have your friends ever been happy

about something *you* did for them?"). Related to this is the issue of how individuals with SLI define close relationships, and whether this differs from typically developing peers. It may also be interesting to examine the parental perspective; do parents think their adolescent child with SLI has a close friend? Lastly, given that school-age children with SLI have some difficulties understanding and predicting emotions in social situations, it would be interesting to look at whether the emotions adolescents with SLI experience and perceive in their close relationships are appropriate (are their close relationships of good quality?).

In this study, a significant group difference in engagement in close relationships was found. However, it is important to note that less than a quarter of the participants with SLI were classified as having poor emotional engagement in close relationships. This may be partly explained by the fact that individuals with serious socioemotional or behavioral problems are by definition excluded from the SLI classification. It is therefore not surprising that only a proportion of adolescents with SLI had problems in their close relationships, and that as a group the difficulties adolescents with SLI encounter in close relationships are best described as subtle.

The effect of gender was also examined. Gender differences in indicators of closeness and intimacy have not been found consistently (Berndt, 1982; Clark & Reis, 1988; Rose & Rudolf, 2006). In the present study, a gender difference was not apparent in level of emotional engagement (although the main effect of gender was approaching significance, $p = .09$). The small proportion of female participants in this study means that it is not an optimal basis for assessing possible gender differences. A significant gender difference may have emerged had the sample included a larger number of females.

This investigation provides information about variables that contribute to adolescent emotional engagement in close relationships. Prosocial behavior was positively related to level of emotional engagement in close relationships, whilst shyness was negatively associated. Language ability made a small but distinct contribution to level of emotional engagement in close relationships, suggesting the importance of effective communication in these relationships. Within this context the findings of the present investigation are informative to schools and professionals supporting young people with SLI. In terms of intervention, there is a need to continue to concentrate on linguistic abilities but at the same time focus on social and relationship issues (Fujiki, Brinton, Hart et al., 1999; Howlin et al., 2000). Previous research indicates that a significant proportion of adolescents with SLI exhibit poorer quality friendships (Durkin & Conti-Ramsden, 2007), and the present study suggests some of these individuals may have limited engagement in close friendships and romantic relationships. It would be valuable, therefore, to consider ways in which to support the development of close relationships in young people with SLI.

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Table 1

Language, Performance IQ, and Reading Scores for Adolescents With SLI and Adolescents with TD

	Group with SLI *M*(*SD*)	Group with TD *M*(*SD*)	*F*	*p*	η^2
Performance IQ	93.41 (16.46)	106.36 (10.90)	39.05	<.01	.18
Expressive language	66.54 (16.04)	99.77 (13.40)	229.02	<.01	.56
Receptive language	72.69 (18.11)	98.53 (11.51)	131.53	<.01	.42
Core language	68.93 (18.45)	102.64 (13.72)	194.03	<.01	.52
Word reading ability	71.39 (15.98)	95.57 (12.97)	125.07	<.01	.41

Table 2

Percentages of "Yes" responses to the Close Relationship Questions

	% respond "yes"		*p*	*V*
	Group with SLI	Group with TD		
Do you have any close or best friends?	92.2	98.9	.029	-
Have you ever:				
- been happy about something your friend(s) did for you?	84.4	97.8	.002	.23
- been sad for your friend(s)?	73.3	91.2	.002	.24
- been excited with your friend(s)?	88.9	100.0	.001	.24
- been proud of your friend(s)?	82.2	89.0	.193	-
- trusted your friend(s) with secrets?	76.7	93.4	.002	.24
Have you ever had a girlfriend or boyfriend?	66.7	85.7	.003	.22
In the future, do you think you will ever get married or settle down with one person?	68.9	96.7	.000	.37

Table 3

Behavioral and Psychosocial Scores for Adolescents With SLI and Adolescents With TD

	Group with SLI		Group with TD	
	M	*SD*	*M*	*SD*
Prosocial Behavior	8.00	1.71	8.71	1.31
Difficult Behavior	13.36	5.81	8.88	4.42
Shyness	34.79	8.13	27.55	8.06
Sociability	19.62	3.24	20.23	2.93

Table 4

Hierarchical Regression Predicting Emotional Engagement in Close Relationships

Variable	R^2	Adj.R^2	ΔR^2	f^2	*B*	*SE B*	B
Step 1	.04	.03		.04			
Performance IQ					.00	.00	-.19*
Step 2	.16	.14	.12	.15			
Performance IQ					.00	.00	-.13
Prosocial behavior					-.05	.01	-.29**
Difficult behavior					.01	.00	.15
Step 3	.24	.22	.08	.10			
Performance IQ					.00	.00	-.09
Prosocial behavior					-.04	.01	-.26**
Difficult behavior					.00	.00	.00
Shyness					.01	.00	.30**
Sociability					.00	.01	-.05
Step 4	.29	.26	.05	.07			
Performance IQ					.00	.00	.07
Prosocial behavior					-.04	.01	-.22**
Difficult behavior					.00	.00	-.05
Shyness					.01	.00	.25**
Sociability					-.01	.01	-.08
Language ability					.00	.00	-.31**

*$p < .05$, **$p < .01$