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Running Head: SLI AND PARENTAL PERSPECTIVES

Parental Perspectives During the Transition to Adulthood of Adolescents With a History
of Specific Language Impairment (SLI)

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Abstract

Purpose: The second paper of the companion set (the first being on “Language and independence”) presents research examining parental perspectives on aspects of impairment in their offspring involving families rearing children with specific language impairment (SLI). **Method:** The same sample as per the first study participated in this investigation: a total of 238 parents and their offspring (120 with a history of SLI and 118 typically developing offspring). Parents were interviewed using the transition daily rewards and worries questionnaire (TDRWQ). Measures of the adolescents’ receptive and expressive language, reading, non-verbal IQ and socio-emotional functioning were obtained. **Results:** Parents of adolescents with a history of SLI had more negative expectations in the areas of future/adult life, socialization and community resources. An exception was family relations, which was a source of reward for both sets of parents. **Conclusions:** Parents of adolescents with SLI have a range of perspectives regarding their offspring; some raise concerns, some more positive. In addition, there is striking heterogeneity in the experiences of parents in the SLI group. Variables that influence being a concerned parent involve the adolescents’ level of independence, quality of peer relations, their prosocial behavior and the presence of conduct problems.

Key words: parental perspectives, transition to adulthood, specific language impairment (SLI)

Parental perspectives during the transition to adulthood of adolescents with a history of specific language impairment (SLI)

Specific Language Impairment (SLI) is a relatively common developmental disorder affecting approximately 7% of kindergarten age children (Tomblin et al., 1997). It is an interesting disorder as it involves marked language difficulties in the context of normal general nonverbal abilities, adequate hearing, appropriate environmental exposure to language and absence of obvious neural damage (Bishop, 1997; Leonard 1998). Although there has been much research into the development of children with SLI, the predominant focus has been on the children themselves, and particularly on their psycholinguistic, cognitive and information processing capacities. Yet, increasingly, researchers have become aware of the importance of the social contexts within which these young people develop. Initially, attention turned to peer relations, showing that having SLI poses liabilities in respect of the child's engagements with others, reflected in problematic interactions and poorer quality of friendships (Brinton & Fujiki, 2002; Durkin & Conti-Ramsden, in press). Recent work has begun also to illuminate the children's family settings and, in particular, has shown that careful attention to parental concerns can afford valuable guides to developmental needs and to what should be the goals of service provision (Lindsay & Dockrell, 2004). It is increasingly recognised that, for theoretical and policy reasons, we need to enrich our understanding of the perceptions of the key people in the lives of young people with language disorders.

In this second article, we investigate the observations and expectations of parents of adolescents with SLI. Whilst parenting experiences in families with a range of impairments or disabilities, including children with SLI, have been examined, this has

rarely been done for adolescents and young adults. The transition from childhood to adulthood is a crucial phase in the life of any individual but it is an especially challenging one for young people with developmental disorders. Parents are well placed to observe and evaluate their adolescent children's needs and preparedness for this transition. We examine parents' perceptions in a study using the same sample as that used in the companion article on "Language and Independence".

Impairment and Parental Perspectives

Research into parents whose children have impairments has focused mainly on families where children have intellectual and developmental disabilities. This work has resulted in a broader awareness that parental concerns can provide sensitive indicators of children's special needs (Glascoe, MacLean, & Stone, 1991). Not surprisingly, it also highlights the demands on the parents themselves. Furthermore, Glidden & Jobe (2007) found that parents of young people with special needs had more concern about their offspring than parents who did not. In a recent review, Glidden and Schoolcraft (2007) conclude that, in general, stress levels are higher among parents rearing children with developmental disabilities than among parents of typically developing children (see also Baker et al., 2003; Emerson, 2003). Investigators have proposed that more severe disabilities bring about more concern, more strain and more stress (although these results have not been universal; cf. Blacher, Lopez, Shapiro & Fusco, 1997; Shin, 2002). Type of disability may also play a role, with parents of children with autism generally experiencing more concern and stress than parents rearing children with Down Syndrome (Hodapp, 1999; Holroyd & Mc Arthur, 1976) and parents of children with behavior and

conduct problems experiencing higher levels of concern and burden of care (Hastings, 2003; Orsmond, Seltzer, Krauss & Hong, 2003; Ricci & Hodapp, 2003).

In recent years, there has been an important shift in the growing literature on parents of children with developmental disabilities. From a primarily pathology-oriented starting point, which sought to identify the negatives experienced, investigators have moved gradually to the acknowledgment that the parents also find positive rewards in their caregiver roles (Glidden & Schoolcraft, 2007; Hastings & Taunt, 2002). Such information is valuable, not only because it offers a fuller and more balanced account of the family contexts, but also because it has the potential to enrich our knowledge of milieux that may be supportive of positive outcomes. Helff and Glidden (1998) argue that positive and negative experiences are not necessarily mutually exclusive ends of a continuum, but may be simultaneous and predicted by different factors. It is desirable to examine the extent to which concerns and rewards co-exist, and to identify their sources.

Parental Perspectives in Families Rearing Children with SLI

Although there is a growing body of work on families rearing children with other disorders, relatively little evidence is available involving families rearing children with SLI. The research that has been conducted so far suggests that parental concerns change at different stages of the children's development. Initially, the concern is often related to the fact that the child has a problem which is not always recognised by professionals. Parents of children who present with delayed speech and language development are often told by the medical profession to "wait and see" if the child improves naturally in the early preschool period. Parents are concerned about the lack of a diagnosis and hence access to intervention (Rannard, Lyons, & Glenn, 2004; Glascoe et al., 1991). Once SLI

is recognised, parental concerns become more focused on the amount and type of intervention and educational support the child may be receiving, particularly during the primary school years (Band et al., 2002; Lindsay & Dockrell, 2004). Research into later childhood is sparse. Pratt, Botting, & Conti-Ramsden (2006) interviewed 52 mothers of 14-year-old children with a history of SLI and found that at this stage of development, the most common reported primary concern was the child's future, i.e. living independently, employability, followed by social and educational concerns. Interestingly, few mothers reported concerns regarding their children's speech and/or language difficulty.

The Present Study

There is a dearth of evidence relating to parental concerns during mid-adolescence. This gap in our knowledge base stands in marked contrast to accumulating evidence that SLI is a long-term disorder continuing through adolescence and even adulthood (Clegg, Hollis, Mawhood, & Rutter, 2005; Howlin, Mawhood, & Rutter, 2000; Mawhood, Howlin, & Rutter, 2000). Young people with SLI as a whole have other associated problems that continue or emerge as they get older. These include social and behavioral difficulties (Brinton & Fujiki, 2002; Fujiki, Brinton, Hart, & Fitzgerald, 1999; Conti-Ramsden & Botting, 2004), difficulties with literacy and academic achievement (Snowling, Adams, Bishop, & Stothard, 2001; Stothard, Snowling, Bishop, Chipchase, & Kaplan, 1998), as well as potential lack of independence (Conti-Ramsden & Durkin, companion article "Language and Independence"). These are crucial issues in respect of the transition into the adult world. In the present study we were interested in determining whether there are differences in parental perspectives during the transition to adulthood between parents of adolescents with SLI and typically developing adolescents. We were

interested in what is most concerning and most important for parents during their offspring's transition to adulthood as well as what factors may be associated with type of parental experience, in particular, what factors differentiate those parents of adolescents with SLI who are very concerned from those who are not. Using an instrument developed by Menard, Schoolcraft, Glidden and Lazarus (2002), we examined parents' concerns about matters relating to their teenage child's interpersonal relations, friendships, and prospects for successful intimate relationships ('Socialization'), about matters relating to access to resources, career support and income potential ('Community Resources'), and integration into the community and development as autonomous adults ('Future/ Adult Life'). In each case, we expected to find that, if parents are indeed attuned to their adolescents' individual characteristics, then these should be identifiable as areas of greater concern for the parents of young people with SLI than for the parents of typically developing youth.

As stressed above, not all aspects of parenting children with developmental impairments are necessarily experienced or perceived as negative. Previous research has shown that parents of exceptional children also enjoy aspects of their roles and take pleasure in their children's personalities and lives in much the same way that parents of typically developing children do. However, very little is known of family relations in contexts where an adolescent member of the household has SLI. To assess this, we solicited parents' evaluations of their child's engagement with the family ('Family Relations'). In this respect, we did not expect to find substantial differences between parents as a function of whether their child had SLI or not.

Method

Participants

The same sample as described in the first study of “Language and Independence” participated in this investigation. Participants were 238 parents of young people with a history of SLI ($n = 120$) and typically developing adolescents ($n = 118$).

At the time of the study, all adolescents were attending the last year of compulsory secondary education. Table 1 presents the characteristics of the adolescents with SLI and TD adolescents in terms of their current psycholinguistic profiles and social/emotional/behavioral functioning (as based on the Strengths and Difficulties Questionnaire; Goodman, Meltzer & Bailey, 1998, which is described fully below).

Tests and Materials

Transition Daily Rewards and Worries Questionnaire (Glidden & Jobe, 2007; Menard, Schoolcraft, Glidden & Lazarus, 2002). The TDRWQ was developed by the above authors as an inventory to measure the daily rewards and concern that parents experience as their offspring make the transition to adulthood. These authors (Glidden & Jobe, 2007) report a series of five studies involving 823 respondents, that provide evidence for a four factor structure with acceptable internal reliability (Cronbach’s alpha ranging from .74 to .85), split-half reliability (Pearson’s correlation = .84), test-retest reliability (via a confirmatory factor analysis with acceptable level of fit and high correlations for each of the factors across time, .56 to .68) as well as adequate discriminant and convergent validity (based on analysis with a comparative measure, i.e. the Subjective Well-Being task). The characteristics of the instrument and the availability

of potential comparative data from the authors' research on typical as well as special needs groups made the TDRWQ the instrument of choice for the present study.

The TDRWQ is a 68-item questionnaire administered to parents designed to assess both the positive and negative aspects of a young person's transition to adult life. Each item comprises a statement describing common issues that arise during this period. Parents are told that these issues can sometimes be rewarding or they may become a source of stress. There are 34 reward items, for example 'I believe that X is fully prepared for independent living.' and 34 worry items, for example 'I fear that others can easily take advantage of my child'.

Parents are first asked how strongly they agree with the statement using a five-point Likert scale indicating 1 'strongly disagree', 2 'disagree', 3 'neither agree nor disagree', 4 'agree' and 5 'strongly agree'. Parents are then asked how important this issue is for them using a four-point scale indicating 0 'not at all important', 1 'slightly important', 2 'somewhat important' and 3 'very important'.

After reverse-scoring the concern items, the questionnaire yields 4 factors based on 34 of the items; Future/Adult Life, Community Resources, Socialization, and Family Relations (see appendix for examples of each subscale). For all factors, i.e. subscales, lower scores are less favourable.

Although the authors of the TDRWQ provide evidence for the reliability of the four subscales of the questionnaire, we repeated this analysis with our sample. Reliabilities (Cronbach's alphas) for the subscales ranged from very good to excellent: Future/ adult life, $\alpha = .88$, Socialization $\alpha = .81$, Community resources, $\alpha = .73$, Family relations, $\alpha = .75$.

Receptive language, expressive language and nonverbal IQ. The measures used were the same as those used in the first study “Language and Independence”.

Social-emotional functioning. The Strengths and Difficulties Questionnaire – self report (SDQ; Goodman et al., 1998) was completed by the adolescents. The SDQ is a brief behavioral screening questionnaire which can be completed by 11-16 year olds providing coverage of young people’s behavior, emotions and relationships. It asks about 25 attributes, some positive (e.g. I try to be nice to other people. I care about their feelings) and others negative (e.g. I am often unhappy, downhearted or tearful). The 25 items are divided between 5 scales of 5 items each, generating scores for conduct problems (e.g. I get very angry and often lose my temper), hyperactivity (e.g. I am constantly fidgeting or squirming), emotional symptoms (e.g. I am nervous in new situations, I easily lose confidence) peer problems (e.g. I am usually on my own. I generally play alone or keep to myself) and prosocial behavior (e.g. I am helpful if someone is hurt, upset or feeling ill). All but the last are negatively scored (high scores are less favorable) and summed to generate a total difficulties score.

Procedure

The procedure used was the same as that described in the first study on “Language and Independence”. The parents of the young people were interviewed using the TDRWQ separately at home for a single period of around two hours, within a working month of the interviews and assessments. The majority of the TDRWQs were completed by the mothers of the young people (SLI 78%; TD 83%) with the remainder completed by the fathers (SLI 10%; TD 7%) or both parents (SLI 11%; TD 10%). In one

case, the guardian (an aunt) of a young person with SLI completed the questionnaire (1%).

Results

Are there Differences in Parental Perspectives During the Transition to Adulthood Between Parents of Adolescents with SLI and TD Adolescents?

The mean scores for each subscale of the TDRWQ are presented in Table 2. As predicted, parents of adolescents with SLI scored significantly lower than parents of TD adolescents on future/adult life ($F(1,234) = 127.6, p < .001$, partial $\eta^2 = .35$), socialization ($F(1,233) = 91.1, p < .001$, partial $\eta^2 = .28$), and community resources, ($F(1,234) = 41.8, p < .001$, partial $\eta^2 = .15$). The difference between groups regarding family relations was not significant ($F(1,219) = 3.4, p = .067$, partial $\eta^2 = .02$); in both cases, the means were above the midpoint of the scale, consistent with the assumption that parents of adolescents with SLI do find rewards in this area of their children's lives that are comparable to those experienced by parents of typically developing young people.

What is Most Concerning and What is Most Important for Parents During Their Offspring's Transition to Adulthood?

The transition statements from the TDRWQ which were most concerning (defined by over 30% of parents strongly disagreeing/ strongly agreeing with transition statements) were as follows:

Parents of adolescents with SLI:

I fear that others can easily take advantage of my child. 40.3% strongly agree

I believe that there are a lot of resources available in my child's community. 35.3% strongly disagree

(My child) has a lot of choices for work. 31.9% strongly disagree

Parents of TD adolescents:

There were no transition statements that were most concerning (as defined above) for parents of TD adolescents.

Thus, the majority of the parents of TD adolescents did not consistently identify serious concerns among those listed. In contrast, approximately one third of parents of adolescents with SLI were worried about others taking advantage of their child, a lack of resources available in the community and restricted employment options for their children.

Recall that the TDRWQ also included an importance scale for each of the issues examined. Table 3 presents the top five most important transition issues (defined as parents rating them as very important).

Three issues were common to both parents of adolescents with SLI and TD adolescents: the young person's future (79% SLI; 69% TD), choices for work (74% SLI; 62% TD) and socializing with other people (74% SLI; 61% TD). What is important to point out is that although there was commonality across parents with regard to what was very important in the transition to adulthood, for parents of young people with SLI these issues were a source of more concern and fewer rewards than for parents of TD adolescents, i.e. parents of adolescents with SLI scored significantly lower on a composite of these three items than parents of TD adolescents ($F(1,233) = 91.47, p < .001, \text{partial } \eta^2 = .28$).

What Factors are Associated with Type of Parental Experience?

A question to be addressed was whether variables could be identified that related to the type of parental experience observed in the families participating in the study. Given that the TD group did not show much variation in measures relevant to this question, analyses in this area were related to the group with SLI only. Associated factors were examined in terms of the adolescents' psycholinguistic characteristics (language and literacy) and behavioral and emotional characteristics. Specifically, the future/adult life and socialization subscales of the TDRWQ were examined as dependent variables, as these had been demonstrated to show the greatest difference between adolescents with SLI and TD adolescents. The community resources subscale was also found to be significantly different across groups but was not examined further. This decision was taken due to the nature of our sample which is geographically spread across the whole country. Thus, our participants are likely to have varied access to different types of resources and we did not have enough information about the actual community resources available to interpret findings in a more fine-grained way.

Hierarchical regressions were conducted using the future/adult life and socialization subscales respectively as the outcome variables. The first block for each regression consisted only of nonverbal IQ in order to control for this variable. The second block added the adolescents' psycholinguistic characteristics as well as the behavioral and emotional characteristics, i.e. expressive and receptive language, reading comprehension and also SDQ emotional difficulties, conduct problems, hyperactivity, peer problems and prosocial scales. Table 4 shows the correlations between these measures. These correlations, in addition to collinearity statistics, suggest that none of these predictors have a strong linear relationship with other predictors.

Table 5 shows the results of the hierarchical regression analysis for predicting type of parental expectations about the future/adult life of their offspring with SLI. The SDQ conduct and peer subscales were found to significantly contribute 22% of the variance in parental concerns about future/adult life (using adj. R^2).

In order to further explore parental concerns about future/adult life, level of independence (as reported in the companion paper “Language and Independence”, see also Table 1, independence score, this paper) was added to the variables in the second step in a second analysis. Recall that level of independence was ascertained by developing a composite parental-report independence score that summed 11 individual items creating a variable with a minimum of 0 (no independence) to a maximum of 11 (high independent functioning). Level of independence was also found to be a significant predictor of parental concerns with the model explaining 49% of the variance.

Table 6 shows the results of the hierarchical regression analysis for predicting type of parental expectations about the socialization of their offspring with SLI. The SDQ prosocial and peer subscales were found to contribute significantly to the variance in concerns about socialization (15%). Once again, a second analysis adding level of independence to the variables in step 2 revealed that independence was a significant predictor of parental concerns with the model explaining over 31% of the variance.

What Factors Differentiate Those Parents of Adolescents with SLI Who Are Very Worried From Those Who Are Not?

Parents of adolescents with SLI reveal considerably greater variation in levels of concern than did parents of TD adolescents. This indicates that while some parents of

children with SLI experience relatively high levels of anxiety about the future of the children, others are less worried.

A binary categorisation ‘very worried’ versus ‘not worried’ was created. Those parents scoring more than 1 SD below and above the SLI mean for a particular factor were identified (≤ 30.2 or ≥ 50.6 for Future/adult life factor and ≤ 21 or ≥ 31 for the Socialization factor). This yielded a group of 20 parents who appeared to be very worried over the future/adult life of their child ($M = 25.5$, $SD = 4.1$) and a group of 25 who were not worried ($M = 54.1$, $SD = 2.9$) and instead were having rewarding experiences in relation to this aspect of rearing their offspring. There were 24 parents who were very worried ($M = 18.8$, $SD = 2.3$) and 25 parents who were not worried ($M = 32.7$, $SD = 1.5$) about the socialization of their offspring. In order to ascertain how many parents worried about future life were also worried about socialization, parental data regarding the presence/absence of concerns in both areas were examined ($n=27$). 15/27 parents were not worried about either area of functioning in their offspring and 12/27 parents were worried about both. Thus, there were no cases of parents who had concerns in one area but not the other.

In terms of the demographic distribution of these groups, maternal education was not significantly different between either the future/adult life very worried/not worried groups ($\chi^2(5) = 6.4$, $p = .27$) or the socialization very worried/not worried groups ($\chi^2(6) = 10.5$, $p = .11$). This was also true of household income (future very worried/not worried ($\chi^2(10) = 16.5$, $p = .086$); socialization very worried/not worried ($\chi^2(11) = 14.0$, $p = .23$)). Descriptive statistics for each group are presented in table 7. The adolescents in the group with parents very worried over their future/adult life had borderline lower PIQ ($F(1,41) =$

3.84, $p = .057$, partial $\eta^2 = .09$), lower receptive language ($F(1,42) = 10.44$, $p = .002$ partial $\eta^2 = .20$), lower expressive language ($F(1,42) = 9.23$, $p = .004$, partial $\eta^2 = .18$), lower reading comprehension scores ($F(1,40) = 20.15$, $p < .001$, partial $\eta^2 = .34$) and a lower parental independence score ($F(1,39) = 51.09$, $p < .001$, partial $\eta^2 = .57$) than the group with parents who were not worried. The adolescents did not rate themselves as more or less prosocial ($F(1,43) = 1.49$, $p = .229$) but did rate themselves as more hyperactive ($F(1,43) = 4.52$, $p = .039$, partial $\eta^2 = .10$), having more emotional difficulties ($F(1,42) = 7.04$, $p = .011$, partial $\eta^2 = .14$), having more conduct difficulties ($F(1,43) = 11.74$, $p = .001$, partial $\eta^2 = .21$) and having more peer difficulties ($F(1,43) = 11.29$, $p = .002$, partial $\eta^2 = .21$).

In terms of socialization, the adolescents in the group with parents who were very worried were not different in PIQ ($F(1,44) = 0.11$, $p = .747$), receptive language ($F(1,46) = 0.27$, $p = .605$), expressive language ($F(1,46) = 0.04$, $p = .852$) or reading comprehension ($F(1,45) = 2.44$, $p = .125$) from the group with parents who were not worried. However, they did have a lower parental independence score ($F(1,43) = 60.56$, $p < .001$, partial $\eta^2 = .59$). The adolescents in the group with very worried parents rated themselves as less prosocial ($F(1,47) = 9.50$, $p = .003$, partial $\eta^2 = .17$), having more emotional difficulties ($F(1,47) = 7.40$, $p = .009$, partial $\eta^2 = .14$) and having more difficulties with peers ($F(1,47) = 13.77$, $p = .001$, partial $\eta^2 = .23$) as well as a borderline difference on having more conduct difficulties ($F(1,47) = 2.83$, $p = .099$, partial $\eta^2 = .06$). They did not rate themselves as more hyperactive ($F(1,47) = 2.58$, $p = .115$).

Logistic regression was performed with the very worried/not worried group as the dependent variable. The first block of the regression consisted of nonverbal IQ. The

second block added expressive language, receptive language, reading comprehension, the SDQ prosocial, emotional, hyperactivity, conduct and peer problems scores and also parental independence score. A forward stepwise procedure was used with significance levels for entry set at $p = .05$. Logistic regression coefficients were used to estimate the odds ratios for each of the independent variables in the model.

WORD Reading Comprehension ($OR = .864$, $95\%CI = .755-.988$, $p = .033$) and parental independence score ($OR = .341$, $95\%CI = .149-.779$, $p = .011$) were found to be significantly related to presence/absence of parental concern over their child's future/adult life. For every one-point decrease in reading comprehension scores, the probability of parental concern over the future of their child is increased by 14%. For every one-point decrease in the parental independence score, the probability of having concerned parents is increased 66%.

In the case of socialization, parental independence score was the only variable significantly related to parental concern ($OR = .185$, $95\%CI = .065-.526$, $p = .002$). For every one-point decrease in the parental independence score, the probability of having concerned parents is increased 81%.

Discussion

This study, to the authors' knowledge, is the first to investigate the perspectives of parents of young people with SLI when their offspring are making the transition to adulthood. A number of important findings emerge relating to parents' perceptions of rewards versus concerns, the nature of their concerns, and the characteristics of the young person that are predictive of concern.

Parental Perspectives During the Transition to Adulthood

The present study identified differences in perspective between parents of adolescents with and without a history of SLI in the areas of future/adult life, socialization and community resources. In contrast to parents of TD adolescents, parents of adolescents with a history of SLI had a number of concerns. The one exception was family relations. There was virtually no difference between the two groups of parents on this measure, with both indicating relatively positive appraisals.

These findings are in line with previous research using the same instrument but involving young people receiving special education. Glidden and Jobe (2007) found significant differences among American honours, regular and special education students (who were on average 18 years of age) in the same areas identified by the TDRWQ: adult life, socialization and community resources. However, no differences between groups were obtained with respect to family relations, with results suggesting that this area was generally a source of reward and fewer concerns. This pattern of results is consistent with recent research demonstrating that, although they do experience higher levels of stress, families can adapt to the demands of rearing children with developmental impairments and can find relations with their children rewarding (Flaherty & Glidden, 2000; Seltzer, Greenberg, Floyd, Pettee & Hong, 2001). Importantly, then, the overall findings from the present study indicate that parents of adolescents with SLI are not reporting ubiquitously negative perspectives/ experiences; this lends particular salience, of course, to those areas of their adolescents' lives that they do perceive as a source of concern.

What Concerns Parents Most and What is Most Important?

More than one third of parents of young people with SLI identified three specific issues which seriously concerned them: others taking advantage of their offspring, lack of resources available in the community and restricted work choices. Interestingly, there were no particular concerning issues which were common to at least one third of the parents of TD adolescents. This more detailed information may be useful in directing support resources. For example, specific training might be desirable for those with SLI in how to manage their difficulties during interviews or when completing employment application forms; advice on appropriate careers, courses, as well as on personal-social education.

Why should parents fear that others might take advantage of their child with SLI? One contributing factor may be the child's history of social vulnerability. Recent research has demonstrated that children with SLI are disproportionately at risk of bullying. They are three times more likely to be bullied at school than TD peers (Knox & Conti-Ramsden, 2003). Furthermore, this was the case whether the children were receiving special education in mainstream or special education placements. In addition, studies of peer relationships in younger children with SLI have found specific patterns of conflict and conflict-resolution behavior which may exacerbate poor social relationships, particularly in reconciliation after disagreement (Horowitz, Jansson, Ljungberg & Hedenbro, in press). Hence, it may be that parents have some awareness of their child's social difficulties and anticipate that these will continue, providing a handicap and risk of victimisation during early adult interactions and beyond.

We examined also what parents considered to be the most important issues in the transition to adulthood. Between two thirds and three quarters of parents of adolescents

with and without a history of SLI coincided in identifying three common transition issues: the young person's future, choices for work, and socialization. This analysis provided an opportunity to measure the degree of importance of a particular reward or concern for each of the parent groups participating in the study (see also Crnic & Greenberg, 1990, for a similar approach). Although both groups of parents tended to agree on the key importance of these specific issues, the types of experiences the two groups reported were quite different. For parents of TD adolescents, these issues were a source of reward and fewer concerns while for parents of adolescents with SLI the reverse was observed, i.e. these issues were a source of concern and fewer rewards. A number of studies suggest that parenting children with impairments involves more concerns than does parenting TD children (Dyson, 1997; Glidden & Schoolcraft, 2007). The findings of the present investigation extend this body of research to parents of young people with a history of SLI in the transition to adulthood.

What Factors are Associated with Type of Parental Experience?

Results suggest that there is no consistent pattern of associations between the psycholinguistic and social-behavioral characteristics of TD adolescents and the level of parental concern about transition to adulthood issues. Overall, in the present study, inspection of the mean item scores for each of these two factors (future/adult life and socialization, Table 2) suggest high levels of reward for parents of TD adolescents, with not much variability observed. In contrast, clear patterns of association were found in the SLI parent group, in particular with respect to levels of parental concern and their offspring's level of independence and social-behavioral functioning. Quality of adolescents' social behavior and peer relations has a key influence on parental level of

concern about their offspring's future/adult life and socialization. Where parents see their adolescent child as being difficult to manage and not getting on well with peers, they tend to anticipate less favorable outcomes in adulthood. But, even more crucially, parental concerns are closely associated with their offspring's level of independence (see the companion paper "Language and Independence"). The critical conclusion for the present purposes is that the severity of dependence (lack of independence) predicts parental concerns about their offspring's future/adult life and about the young person's capacity to benefit from socialization opportunities. This finding, nonetheless, needs to be qualified. The measure of independence that was used aimed to tap activities outside the home (amongst others); thus it is possible that the strong relationship between independence and parental concern over socialization is due, at least partly, to some overlap between these two variables.

In contrast, much like Pratt et al., (2006), child characteristics in terms of cognitive, language and literacy skills did not appear to relate linearly to level of parental concern. Results from the companion paper "Language and Independence" suggest that language and literacy play an important role in adolescent independent functioning and a larger role than nonverbal abilities. Thus, young people with more severe language and literacy difficulties are less likely to be independent. What the results of this study further suggest is that, by the time children reach adolescence, lack of independence is what is clearly associated with greater parental concern.

Compared to TD populations, there is marked heterogeneity in the subjective experience of parents of children with different types of impairments (e.g., Seltzer & Heller, 1997). The results of the present investigation suggest that parents of adolescents

with SLI manifest similar variability. Some parents appeared to be very worried about their offspring future/adult life and socialization while others were not. To investigate the sources of this differentiation, we identified two extreme groups within the SLI sample: those parents who were very worried and those parents who were not.

Importantly, these two groups did not differ in terms of maternal education or household income. Overall, parents who were very worried about their adolescents' future/adult life had offspring with lower cognitive, language and literacy skills as well as being less independent and having more social-behavioral difficulties. Logistic regression analysis revealed literacy (reading with understanding) and independence were the most significant predictors. Thus, language impairment seems to bear directly on parental concerns to the extent that literacy problems are a cause of anxiety about adult prospects. The most significant predictor, however, was level of independence. Furthermore, for socialization, level of independence was the only significant predictor. Taken together, these results suggest that lack of independence is the key concern of parents who are very worried about their offspring with SLI. In our companion paper "Language and Independence" we discuss concurrent and early predictive variables that increase the risk of lack of independence in adolescence. Such information is crucial for identifying particularly vulnerable subgroups within the SLI population. These results are also relevant to our theoretical understanding of the nature of SLI. Parental concerns suggest that there may be a number of areas of development that can be problematic in SLI; some of these may not be necessarily directly related to, or be a consequence of, having a history of language problems. These possibilities emphasize once again the need for

longitudinal studies involving children with SLI that examine gradually developing competencies and their interrelationships.

This is not to claim that only child characteristics determine how parental concerns are formed about young people with SLI. As suggested by broader models of parenting (Belsky, 1984, 1990), the social context, resources and support, marital relations, and parental characteristics, including coping skills, are also very relevant (see Blacher, 2001; Minnes, 1988; Pratt et al., 2006, for examples in relation to parenting children with special needs). In this study, we found no differences in maternal education and household income when comparing worried and not worried parents, suggesting that resources are not a primary determinant of the present results. It remains to future research to investigate what is likely to be a complex interplay of family processes (including marital relations and parent-child attachments), support, and parenting styles as influences on parental anxieties about their adolescents. Given the tendency for language difficulties to run in families (Choudhury & Benasich, 2003), it is possible that some parental concerns about the child's future reflect observations of their own or relatives' experiences. Lindsay and Dockrell (2004), for example, found that parents of younger children with SLI often took family history into account in deciding to pursue diagnoses or interventions. Nevertheless, the present findings do establish that parents of young people with histories of SLI are more likely to experience concerns about their children's futures than are parents of adolescents with TD.

Findings of the present study demonstrate that parents of adolescents with SLI have a range of perspectives regarding their offspring in the transition to adulthood; some of these are concerning (future/adult life, socialization, community resources) while

others are more positive (family relations). In addition, striking heterogeneity in the experiences of parents was identified in the SLI parent group and this was significantly more so than for parents of TD adolescents. Our results suggest on the one hand, that for some parents rearing a young person with SLI is mostly a rewarding experience. On the other hand, for some parents it is mostly a concerning experience. Variables that influence being a parent who is very worried involve in particular the adolescents' level of independence. As reported in the companion paper "Language and Independence", level of independence is in turn associated with both language and literacy skills. In the light of accumulating evidence that parental concerns are reliable guides to their children's problems and needs (Glascoe et al., 1991), these findings indicate priorities for future research and for service provision. In the companion paper we outline the need for support for the young people themselves. What the findings of this paper emphasise is the need for social support for some parents of young people with SLI for whom raising a young person with SLI is a very concerning experience. Such support is likely to involve access to professionals such as psychologists and social workers who can provide parental counselling as well as information/advocacy for parents and their offspring with SLI during the transition to adulthood.

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Table 1

Ability Profiles (Psycholinguistic Standard Scores, Social/Emotional/Behavioral Functioning and Parental Opinion of Independence) of Adolescents with SLI and TD Adolescents

	SLI		TD	
	(n=120)		(n=118)	
	M	SD	M	SD
CELF-R Receptive subtest (Word Classes)	83.7	16.5	99.9	13.3
CELF-R Expressive subtest (Recalling Sentences)	73.6	10.3	97.5	14.9
WORD Reading Comprehension ^a	75.8	14.2	92.2	11.4
WISC-III PIQ	84.3	18.8	101.0	15.2
SDQ prosocial score ^b	7.8	1.9	8.6	1.5
SDQ hyperactivity score	4.6	2.5	3.7	2.3
SDQ emotional symptoms score	3.9	2.5	2.3	1.7
SDQ conduct disorder score	2.6	1.7	1.8	1.7
SDQ peer problems score	2.6	1.9	1.2	1.1
Parental independence score ^c	7.0	2.7	9.7	1.0

^a n=63 for TD adolescents

^b SDQ prosocial scale is scored positively so that higher scores are more favourable.

All other SDQ scales are scored negatively, where higher scores are less favourable.

^c Parental independence score is scored positively so that higher scores are more favourable

Table 2

*Mean Scores for Adolescents with SLI and TD Adolescents for Each of the Four TDRWQ**Factors*

	Adolescents with SLI (n=119)		TD adolescents (n=117)	
	M	SD	M	SD
Future/Adult Life	3.4	0.8	4.4	0.4
Socialization	3.7	0.7	4.5	0.5
Community Resources	3.0	0.7	3.5	0.6
Family Relations	4.1	0.7	4.3	0.6

Table 3

*The Five Most Important Transition Issues for Parents of Adolescents with SLI and TD**Adolescents*

	Percentage of parents to whom issue is 'very important'
<i>Adolescents with SLI</i>	
Child will be a good parent	80
Optimistic about child's future*	79
Understands the responsibilities that accompany sex	76
Child enjoys socialising with other people*	74
Child has a lot of choices for work*	74
<i>TD adolescents</i>	
Opportunities available after child leaves school	71
Optimistic about child's future*	69
Resources available in child's community	62
Child has a lot of choices for work*	62
Others can easily take advantage of child	61
Child enjoys socialising with other people*	61
*common to parents of SLI and TD adolescents	

Table 4

Correlations between Language, Literacy and Behavioral/Emotional Characteristics

	CELF	CELF	WORD	SDQ	SDQ	SDQ	SDQ	SDQ	indepe
	exp	rec	rc	prosoc	hyper	emot	conduct	peer	ndence
PIQ	.24**	.57**	.58**	.07	.02	-.02	-.06	.01	.11
	.03	.22*	.50**	.00	-.17	-.16	-.21*	.02	.17
CELF exp		.57**	.55**	-.09	.08	-.09	-.05	-.13	.16
		.36**	.11	-.08	-.12	-.02	-.05	-.14	.04
CELF rec			.64**	-.07	-.11	-.13	-.09	-.07	.18
			.42**	.08	-.17	.06	-.17	-.13	-.05
WORD rc				.08	-.12	-.13	-.10	-.19*	.25*
				.01	-.08	-.16	.01	-.12	.19
SDQ prosocial					-.22*	.13	-.26*	-.08	.22*
					-.13	.17	-.26**	-.15	-.03
SDQ hyper						.24*	.51**	.16	-.13
						.16	.43**	.04	-.05
SDQ emotional							.15	.51**	-.23*
							.21*	.16	-.05
SDQ conduct								.15	-.16
								.17	.11
SDQ peer									-.27**
									-.03

* p<.05 **p<.01

Note: top values in each cell denote SLI, bottom values denote TD

Table 5

Hierarchical Regression Analysis Predicting Parent Concern About the Future/Adult Life of their Adolescent Child with SLI

Variable	R^2	R^2	f^2	B	SE B	β
	change					
Step 1	.01		.01			
WISC PIQ**				.06	.05	.11
Step 2	.30	.29	.42			
CELf expressive subtest				.10	.12	.10
CELf receptive subtest				.01	.08	.01
WORD reading comprehension				.04	.10	.06
SDQ Prosocial score				.50	.51	.10
SDQ Hyperactivity score				-.33	.45	-.08
SDQ Emotional difficulties score				-.51	.42	-.13
SDQ Conduct problems score*				-1.25	.60	-.22
SDQ Peer difficulties score*				-1.20	.57	-.23

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

Table 6

Hierarchical Regression Analysis Predicting Parental Concern About the Socialization of Their Adolescent Child with SLI

Variable	R^2	R^2	f^2	B	SE B	β
	change					
Step 1	.01		.01			
WISC PIQ**				-.02	.03	-.03
Step 2	.23	.22	.29			
CELf expressive subtest				-.01	.06	-.01
CELf receptive subtest				-.05	.04	-.16
WORD reading comprehension				.01	.05	.04
SDQ Prosocial score*				.64	.27	.25
SDQ Hyperactivity score				-.11	.24	-.05
SDQ Emotional difficulties score				-.36	.22	-.18
SDQ Conduct problems score				.22	.32	.08
SDQ Peer difficulties score*				-.66	.30	-.25

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

Table 7

Child Characteristics of the Parental Very Worried Versus Not Worried Groups in the Areas of Future/Adult Life and Socialization

	Future/adult life		Socialization	
	Very Worried	Not worried	Very worried	Not worried
WISC PIQ	83.5 (22.1)	92.4 (14.5)	89.0 (20.5)	86.8 (13.7)
CELF-wc (receptive)	79.4 (15.5)	93.5 (15.3)	89.4 (21.0)	85.2 (13.5)
CELF-rs (expressive)	71.0 (8.5)	79.1 (10.2)	77.1 (13.7)	75.7 (10.2)
WORD reading comprehension	69.3 (11.4)	85.5 (11.5)	77.3 (15.6)	83.0 (12.2)
SDQ prosocial behavior	7.7 (1.7)	8.1 (1.6)	7.0 (2.0)	8.4 (1.3)
SDQ hyperactivity	5.5 (1.9)	3.9 (2.3)	5.5 (2.1)	4.0 (2.5)
SDQ emotional symptoms	4.4 (2.1)	2.9 (1.9)	4.8 (2.5)	3.0 (2.1)
SDQ conduct disorder	3.8 (2.0)	1.9 (1.7)	3.0 (1.7)	2.1 (1.6)
SDQ peer problems	3.3 (1.8)	1.6 (1.2)	3.3 (2.1)	1.4 (1.2)
Parental independence score	4.4 (2.9)	9.1 (1.2)	4.7 (2.3)	9.0 (1.3)

Appendix

Examples of Items in TDRWQ Factors

Future/Adult life

I worry that the community will not accept _____ (R)

I am afraid that my child will depend on me forever (R)

I am confident that _____ will earn a good living

Community Resources

I am pleased with _____'s ability to manage money

_____ has a lot of choices for work

I feel that school programs have not adequately prepared my child for independent living (R)

Socialization

I am glad that _____ enjoys socialising with other people

I feel that my child has ample opportunity to meet people

_____ has very few friends and this bothers me (R)

Family Relations

I feel good because _____ enjoys family activities

I worry that _____'s siblings may come to resent him/her (R)

I worry that _____ will not be able to rely on his/her siblings (R)

Key: (R) is a reverse scored item