Oral Language Competence, Social Skills and High-risk Boys: What are Juvenile Offenders Trying to Tell us?

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A cross-sectional study examining the oral language abilities and social skills of male juvenile offenders is described. Fifty juvenile offenders and 50 non-offending controls completed measures of language processing and production, and measures of social skill and IQ. Information about type of offending, substance use histories and learning/literacy problems was also gathered. Young offenders performed significantly worse on all language and social skill measures, but these differences could not be accounted for on the basis of IQ. Just over half of the young offenders were identified as language impaired. This subgroup was compared with non-language impaired offending peers on a range of variables. The findings have particular implications in the areas of early intervention for high-risk boys and investigative interviewing of juvenile offenders. © 2007 The Author(s). Journal compilation © 2007 National Children's Bureau.

Introduction

It is well established that juvenile offending is associated with poor academic performance and learning and/or attentional deficits (Loeber and others, 1998). Poor academic performance in turn carries the risk of early school departure, inadequate further education and training, chronic unemployment and dependence on welfare and/or continued criminal activity. It is, therefore, a critical target of early intervention programmes. Evidence from an Australian study (Putnins, 1999) examining the literacy, numeracy and non-verbal functioning of juvenile offenders shows a decrease in performance across all three domains in comparison with student peers. Putnins (1999) also reported that approximately 80 per cent of juvenile offenders had been expelled or suspended from school (compared with 11% of controls).

In addition to poor literacy and numeracy skills, juvenile offenders typically fail to develop culturally appropriate social skills (Hollin, 1996; Jessor and Jessor, 1977). The extent to which such deficits are causally related to offending remains unclear. Parenting style and

role modelling are probably implicated; however, links have also been made between social skills and information-processing skills in high-risk groups (Hollin, 1996).

Oral language competence is an important, yet often overlooked protective factor in young people. Beitchman and others (1999) reported on a 14-year prospective follow-up of 244 speech- and language-impaired children who were initially identified at the age of 5. At the age of 19, the speech/language-impaired group had the highest number of comorbid psychiatric diagnoses.

Examining links between language competence and prosocial behaviour potentially has much to offer to the understanding of high-risk young people. There is a small but growing body of research identifying significant levels of oral language deficits in juvenile offenders (Bryan, 2004; Davis and others, 1991; Humber and Snow, 2001; Sanger and others, 1999, 2000; Snow and Powell, 2004a,b, 2005). Our own recent studies (Humber and Snow, 2001; Snow and Powell, 2004a,b, 2005) have shown that young male offenders have difficulties on a range of abstract language tasks (e.g. understanding everyday idioms such as 'a bird in the hand's worth two in the bush', and identifying two possible meanings for an ambiguous statement), as well as on measures of speed of information processing and narrative discourse. Narrative discourse refers to the ability to structure information units so that the story is told to a listener in a logical way. According to Stein and Glenn (1979), a narrative typically comprises seven logically sequenced story grammar elements (a setting, an initiating event, an internal response, a plan of action, an attempt at action, direct consequences of this action and protagonists' reactions). Because it is sensitive to many cognitive and linguistic skills (Paul, 2001), narrative competence is the 'canary in the coalmine' with respect to language competence. It has a special significance in relation to young offenders, as it is the means by which an accused person can tell their story to law enforcement authorities. Our findings (Snow and Powell, 2005) indicate that young offenders struggle to put information together for a listener in this way. Specifically, we found that they are less likely than controls to articulate the plan, direct consequences and resolution components of the story, so that important cause-effect relationships are not conveyed to the listener. This language deficit inevitably disadvantages young offenders within the legal system because judicial decisions largely depend on the quality and credibility of the evidence provided by defendants.

Young people with compromised spoken language skills also commonly have difficulty establishing and maintaining satisfying relationships with peers (Davis and others, 1991; Paul, 2001). Evidence suggests that language skills play an integral role in mediating relationships with others. Low peer acceptance has been identified in young offenders (Hollin, 1996), raising the possibility that reduced social competence may be associated with compromised oral language skills. This may be a particular issue for young people who commit violent crimes because of their limited interpersonal resources, their tendency towards hostile attribution and a life history of unsatisfactory interpersonal relationships.

Thus, there are two separate bodies of research which show links between juvenile offending and poor oral language skills on the one hand, and links between juvenile offending and social skill deficits on the other; however, there has not been an explicit attempt to link the evidence across these two paradigms in young high-risk people. The possibility that social skill deficits can at least in part, be accounted for by a decrease in underlying oral language is plausible. It is not known, however, to what extent a decrease in oral language competence correlate with a decrease in social skill. This question is important because many rehabilitative interventions for young offenders (e.g. counselling, literacy and social skill programmes) are likely to have diminished efficacy in cases where oral language skills are deficient.

Aim

The aim of this study was to examine the following hypotheses:

- The oral language skills and social skills of male juvenile offenders would be significantly poorer than those of a demographically similar control group, and that such differences would not be explained on the basis of IQ differences;
- There would be a positive correlation between oral language skills and social skill performance within both the juvenile offender and control groups and
- There would be a higher probability of violent offending in young offenders displaying oral language deficits than in young offenders whose language skills could be classified as non-impaired.

A further aim was to explore the relationship between oral language competence and substance misuse in high-risk youth. Self-reported histories of learning/literacy problems in early childhood were documented so that these could be examined with respect to performance on the measures of language competence.

Method

Participants

Male juvenile offenders (n = 50) completing community-based orders (e.g. a youth attendance order) were recruited through a regional Department of Human Services Juvenile Justice (JJ) office in Victoria, Australia. The region examined has a relatively high score on the Australian Bureau of Statistics (2006) *Socio-economic Indexes for Areas Index of Disadvantage* (meaning relatively high levels of disadvantage) and overwhelmingly comprises families of Anglo-Saxon extraction. JJ case workers applied the following exclusion criteria before approaching a young offender about the project: no documented major psychiatric illness, intellectual disability, traumatic brain injury or hearing impairment. The participants were required to have completed the majority of their schooling in an English-speaking country. These exclusion criteria reflected the need to control variables that could independently influence scores on the measures of interest.

The JJ group had a mean age of 15.8 years (SD = 1.2) and had completed a mean of 7.6 years of education (SD = 2.0). Only nine (18%) were still attending school, and over half (26) indicated that they had left school at least two years prior to their inclusion in the study.

The control group comprised 50 boys attending one of five local government high schools in the same region as the JJ unit. The same exclusion criteria were applied to this group, plus the requirement that they had not been convicted of any criminal offences. The mean age of the control group was 14.9 years (SD = 1.1), hence they were on average nearly a year younger than the young offenders and this difference was statistically significant (t = -3.8, P = 0.000). The controls had completed a mean of 7.8 years of education (SD = 1.0), and at the time of the study, all were still attending school.

Procedure

Approval to conduct the study was obtained from the relevant human research ethics committees.

Language measures

Four tests of oral language competence were completed in a randomised order for each participant: subtests 1 and 4 of the test of language competence-expanded edition (TLC-E), (Wiig and Secord, 1989), a narrative discourse task, and the recalling sentences component of the clinical evaluation of language fundamentals screening test (Semel and others, 1996).

Subtest 1 (ambiguous sentences) of the TLC-E (Wiig and Secord, 1989) requires the interpretation of sentences with meaning ambiguities, for which two alternative interpretations are identified and explained by the participant, for example 'John was looking up the street' – he was either standing on the footpath looking into the distance, or he was looking up the street in a street directory. Subtest 4 (figurative language) requires the interpretation of metaphoric expressions by selecting an alternative from a choice of four options, for example recognising that 'There is rough sailing ahead of us' has a non-literal meaning concerning difficult times. In each of these subtests the participants both heard and saw the printed stimuli which were placed in clear view and read aloud by the examiner.

Narrative discourse was measured by asking participants to 'tell the story of what happened' in 'the flowerpot incident'. This is a sequentially organised six-frame black and white cartoon. The picture stimulus was in view of both the participant and the examiner and responses were audiotaped for transcription and analysis. This stimulus has been used in two earlier studies of the oral language competence of juvenile offenders (Humber and Snow, 2001; Snow and Powell, 2005). Verbatim transcripts were analysed according to the presence and completeness of the seven-story grammar elements identified by Stein and Glenn (1979), as outlined earlier. We have previously described a scoring protocol covering both structural adequacy and content detail (Snow and Powell, 2005). The scoring system yields three dependent variables: the total number of syllables produced (a measure of overall communication output), the number of story grammar elements (out of a total of seven, being those described by Stein and Glenn [1979]) in evidence in the narrative sample and total scores (out of 14) across each of the seven-story grammar elements. This latter measure embodies both structural completeness and the qualitative adequacy of participants' narratives. Hence, each element in each speaker's narrative was scored on a 0, 1 and 2 rating scale, where 0 =the element is not present, 1 = structural evidence of the element, but content deficiencies exist and 2 = the element is structurally in evidence and is qualitatively judged as complete.

Transcription accuracy was examined by having two independent practitioners transcribe the narratives. Discrepancies were rectified through reference to the audiotape and conferring between transcribers.

Inter-rater reliability on narrative scores was examined on a random selection of 25 per cent of samples by asking two speech-language pathologists (one of whom was blind as to the group status of the samples) to score the transcripts independently. Mean point-to-point agreement between raters on the score assigned to each element was 84.3 per cent (SD = 15.1).

Social skill measure

The inventory of adolescent problems-short form (IAP-SF), (Gibbs and others, 1995) was administered to gauge the participants' level of social skill. This was adapted from the adolescent problems inventory and the problems inventory for adolescent girls (see Gibbs and others, 1995). The IAP-SF considers social competence in three response conditions: immediate response demand, deferred response demand and sensitivity to deviant peer pressure. It has been shown to be reliable and valid for use with young offenders (Gibbs and others, 1995). A short vignette is read to the participant, who is then asked to say what he would say in that particular situation. This response is audiotaped and transcribed for analysis and scoring. Gibbs and others (1995) provide explicit scoring guidelines for each scenario.

Two raters independently scored a random sample of 25% of IAP-SF responses. This yielded mean point-to-point agreement for the JJ group of 80% and in the control group of 77%. Discrepancies were discussed between raters, with reference to the scoring manual, and agreement was reached on the scores used for analysis.

Screening measure of non-verbal intelligence

The matrices subtest of the Kaufman brief intelligence test (K-BIT; Kaufman and Kaufman, 1990) was included as a measure of non-verbal intelligence, in order to control for variability in oral language competence as a function of IQ. This subtest is designed to measure fluid intelligence, that is the ability to solve problems through the perception of non-verbal relationships and by completing non-verbal analogies. All matrices items contain pictures and abstract designs rather than words, so non-verbal ability can be assessed even when language skills are limited.

In addition to these measures, some background information was gathered about developmental history. The participants were interviewed about their history of problems such as learning difficulties at school. They were also asked to outline what, if any, interventions had been provided in relation to these. Finally, the participants were asked whether they had ever and recently (last three months) used a range of substances, both licit and illicit.

Information was extracted from the departmental files of JJ participants to ascertain and classify their offence types. Fifteen (30%) had been convicted of violent offences (e.g. assault) while the remaining 35 (60%) had been convicted of property offences (e.g. car theft, wilful damage to property).

Results

Language, social skill and intelligence measures

Table 1 displays the descriptive and inferential statistics for language, social skill and non-verbal IQ measures for both groups.

The offenders performed significantly worse than the control group on all language and social skill measures. There was not, however, a significant difference between the groups on non-verbal IQ, meaning that Hypothesis No 1 was confirmed.

	Group						
	Offender		Comparison				
	Mean	SD	Mean	SD	t	<i>P</i> -value	d
CELF sentence repetition	4.4	2.2	5.7	1.7	-3.4	0.001	0.76
TLC-E Subtest 1 (ambiguous sentences) standard score	6.4	2.7	8.2	2.6	-3.4	0.001	0.69
TLC-E Subtest 4 (figurative language) standard score	6.2	2.6	8.0	2.8	-3.4	0.001	0.64
Narrative discourse: total syllables	75.6	41.1	82.1	26.4	94	0.35	0.24
Narrative discourse: overall score	6.2	2.2	8.1	2.0	-4.6	0.000	0.95
K-BIT matrices subtest standard score	85.8	18.3	90.1	14.8	-1.3	0.20	0.58
IAP-SF: overall social skill score	284.4	105.5	478.3	100.9	-9.4	0.000	1.92
IAP-SF: immediate response demand score	2.9	1.5	4.9	1.3	-6.2	0.000	1.5
IAP-SF: deferred response score	3.2	1.6	4.7	1.6	-7.1	0.000	0.93
IAP-SF: sensitivity to deviant peer pressure	3.5	1.6	5.3	1.3	-4.7	0.000	1.38

Table 1: Language, social skill and IQ measures: descriptive and inferential statistics

To test Hypothesis No 2, a composite language score was computed for both groups. This comprised the sum of the scores on the TLC-E subtests, the CELF-R sentence repetition score and the narrative discourse total score. The mean of the JJ group on this composite measure (23.1, SD = 6.8) was significantly lower (t = -5.2, P = 0.000; d = 1.04) than that of the control group (30.0, SD = 6.6). Examination of within-group correlations (all one-tailed) indicated that in the JJ group, oral language competence did not correlate significantly with social skill ability, as measured by IAP-SF overall mean scores (r = 0.017, P = 0.45). In the control group, however, a moderate significant correlation (r = 0.38, P = 0.005) was found.

Developmental histories

Educational status and self-reported reading and writing ability

Sixty-four per cent of the young offenders had completed only up to year 8 (the second year of secondary schooling), in spite of their mean age being nearly 16 years. When asked to comment on their reading and writing abilities in the early school years, 18 (36%) young offenders described these as 'not good', as against seven (14%) in the control group. In spite of this, 23 (46%) young offenders reported having received some type of assistance (e.g. Reading Recovery) during the early years, as against 12 (24%) in the control group.

Self-reported substance use

As may be seen in Table 2, none of the control group reported ever-use of drugs other than alcohol or tobacco; however, over 80 per cent of the offender group had used at least one illicit substance (generally cannabis). Where ever-use of illicits other than cannabis was reported, this was most often amphetamines (reported by 38% of the offender group). Recent use of illicit drugs by the young offenders was largely confined to cannabis; however, 16% of this group reported use of other illicits in the previous three months.

Drug	Ever (%)		Recent (%)		
	IJ	Control	JJ	Control	
Alcohol	98	50	88	34	
Tobacco	92	18	88	8	
Cannabis	82	2	54	0	
Other	38	0	16	0	

Table 2: Ever and recent self-reported substance use across both groups (expressed as a percentage of total in each group)

Within-group comparisons: language impaired versus non-language impaired young offenders

To explore social skill and offending type as a function of oral language competence in the offender group, language impairment (LI) was defined as a score of 1.0 SD below the control group's mean on the composite language score. Given the significant age difference between the groups, this was considered a conservative measure of LI. Applying this criterion, 26 (52%) young offenders were classified as having a LI. Table 3 displays a breakdown of the K-BIT non-verbal matrices subtest and IAP-SF scores across the two subgroups. The total syllables produced on the narrative discourse task are also shown. The LI subgroup performed significantly more poorly than the non-LI subgroup on the IAP-SF deferred response subtest, and also produced significantly fewer syllables on the narrative discourse task. The LI subgroup did not, however, differ from the non-LI subgroup on the K-BIT non-verbal matrices subtest.

A subgroup × element analysis for the seven-story grammar elements showed significant differences with respect to the adequacy of the following elements in the narratives produced by the LI subgroup: the setting (U = 238, P < 0.05), the plan (U = 256, P < 0.05) and the attempt (U = 238, P < 0.05).

	Offender subgroup						
	Language impaired ^a (n = 26)		Non-language impaired $(n = 24)$				
	Mean	SD	Mean	SD	t	<i>P</i> -value	d
Age	15.9	1.2	15.9	1.2	0.2	0.42	n/a
K-BIT matrices subtest standard score	82.7	14.7	89.1	21.3	-2.7	0.11	0.30
Narrative discourse: total syllables	61.3	31.5	91.3	45.1	-2.7	0.004*	0.66
IAP-SF: overall social skill score	285.2	108.9	283.5	103.9	0.06	0.47	0.016
IAP-SF: immediate response demand score	3.0	1.5	2.9	1.5	0.30	0.38	0.06
IAP-SF: deferred response score	2.8	1.5	3.6	1.8	-1.7	0.047*	0.44
IAP-SF: sensitivity to deviant peer pressure	3.6	1.6	3.4	1.7	0.45	0.32	0.12

 Table 3:
 Age, non-verbal IQ, communicative productivity and social skill within the two JJ subgroups: descriptive and inferential statistics

^aDefined as a score of 1.0 SD below control group on composite language score.

*P < 0.05.

	Language impaired	!?	
	Yes	No	Total
Type of offending			
Property	19	16	35
Violent	7	8	15
Total	26	24	50

Table 4: Type of offending × presence or absence of language impairment in the two JJ subgroups (percentage)

 Table 5:
 Ever and recent self-reported substance use in both JJ subgroups (language impaired and non-language impaired) (percentage)

Drug	Ever (%)		Recent (%)		
	LI	Non-LI	LI	Non-LI	
Alcohol	96	100	81	92	
Tobacco	88	88	88	88	
Cannabis	73	83	50	83	
Other	19	21	4	4	

The type of offending (property versus violent) was tabulated against the presence or otherwise of a LI in the two JJ subgroups (see Table 4), to determine whether there was a significant association between these two variables. The OR of 0.82 suggests, however, that this is not the case, thus Hypothesis No 3 was not confirmed.

Table 5 displays the percentage in each subgroup who self-reported ever and recent use of a range of psychoactive substances. Visual inspection suggests that the two subgroups are broadly similar, with the possible exception of higher rates of recent cannabis use by the non-LI subgroup.

Comparison of the two subgroups on self-reported developmental histories of reading and writing difficulties in the early school years showed that half (n = 13) of the LI offenders indicated that they had experienced some difficulty in these domains, as against one-fifth (n = 5) of the non-LI offenders. Sixteen (61.5%) LI offenders indicated that they had received some form of early intervention (e.g. Reading Recovery), as against seven (29%) of the non-LI subgroup.

Discussion

We explored several hypotheses regarding the relationship between oral language competence, social skills, non-verbal IQ and type of juvenile offending. The findings clearly support the contention that young offenders have been overlooked with respect to the role played by inadequately developed everyday language skills in social and educational marginalisation (Humber and Snow, 2001; Sanger and Maag, 1994; Sanger and others, 2001; Snow and Powell, 2004a; Snow and Powell, 2005).

Importantly, the deficits displayed by the young offenders were global and robust. The findings cannot be explained by group differences in IQ and the young offenders were outperformed on language and social skill measures by a control group that was a year younger. The young offenders displayed significant difficulties with a diverse range of language tasks, whether they required abstraction, the ability to deal with non-literal material or the ability to formulate a story and convey this via spoken discourse. Difficulties on the sentence repetition task reflect impoverished auditory processing *and* formulation skills, supporting previous work with other developmental subgroups with known LI (Conti-Ramsden and others, 2001).

What is the potential impact of these deficits? We have previously emphasised the considerable disadvantage attached to such LIs during investigative and evidentiary interviewing. The difficulties reported here have a more fundamental relevance, however, to early intervention policy-makers and practitioners, given their invisible, yet pervasive influence on the nature and amount of verbal output produced in everyday contexts. Linguistic and social competencies are fundamental to every interpersonal interaction, formal or informal, in which a person engages. Our findings indicate that young offenders experience wide-ranging difficulties both in processing the language of others and in organising their own experiences, thoughts and ideas into spoken language that will foster prosocial relationships and enable participation across a range of social roles. In an effort to keep up with the highly verbally demanding nature of everyday life, young people with unidentified language deficits *and* poor social skills are likely to resort to monosyllabic responses, shoulder shrugging and poor eye contact. Unfortunately, such behaviours are easily misinterpreted as reflecting a lack of co-operation, rather than a lack of communication ability, and can thus incur a significant social penalty.

Because the specific relationship between oral language ability and social skills has not been previously explored in juvenile offenders, this was a focus of this study. The responses of the young offenders on all three domains of the IAP-SF were significantly poorer than those of the (younger) controls. We hypothesised that the previously described poor social skills of this group might at least partly be accounted for by their inadequately developed language abilities. This hypothesis was not, however, supported. In the JJ group, there was only a weak, non-significant association between these variables, whereas in the control group this association was moderately strong and statistically significant. A possible explanation for this group difference lies in the nature of adult-child interaction in low-risk families. Strong parent-child attachment and child-centred interaction gives rise to many everyday opportunities to stimulate and extend language competence and teach (explicitly and implicitly) about variations in language usage as a function of social circumstance, such as the need to accommodate the nature of the relationship between speakers (Cohen, 2001). There may, however, have been a 'floor effect' in the scores of the JJ group that interfered with the establishment of a correlation between overall social skill scores and the composite measure of language ability. Thus, the potential for such a relationship warrants further examination, especially in the light of prior research that suggests strong links between LI and antisocial behaviour (Freiberg and others, 2005; Loeber and others, 1998; Smart and others, 2003).

Given the association between social disadvantage and juvenile offending (Loeber and others, 1998) it is notable that our findings are consistent with those reported by Locke and others (2002) that children reared in poverty display language abilities well below their expected age levels. It is not possible to determine the cause(s) of the linguistic deficits in our JJ group; however, the role of sociocultural experiences, both at home and in the classroom, must be considered. While the two groups were similar with respect to broad markers of

socio-economic status (geographic location and current or prior attendance at the same publicly funded high schools), the JJ boys in this study had completed, on average, only 7.6 years of education. Spinelli and Ripich (1985) observed: 'Teachers devote direct attention to assisting children in producing well-organised written and oral narratives as well as in understanding the organisation of academic materials' (p. 184). Perhaps the young offenders had had scant opportunities to benefit from instruction techniques aimed at developing a narrative style and competence to a sociolinguistically normed level. Their comprehension of everyday idioms is also likely to have been compromised through a limited cultural/educational exposure to their use. Oral language competence underpins the transition to literacy, which in turn is a major predictor of academic achievement and school attachment. Much more needs to be done to identify and address deficient oral language skills in children from high-risk backgrounds, both to strengthen known protective factors and to buffer known risk factors.

This is the first study that has attempted to describe the characteristics of LI young offenders, and compare these with non-LI young offenders. The LI subgroup did not differ significantly on non-verbal IQ, though the effect size on this should be noted in future studies. There was, how-ever, a significant difference on the total syllables produced on the narrative discourse task. This suggests that the LI subgroup experienced greater difficulty formulating their ideas in ways that can be shared with others. The LI subgroup also differed from their non-LI counterparts on their ability to produce a well-formed, coherent narrative, and performed more poorly on the IAP-SF deferred response subtest. This subtest requires the ability not only to think in abstract terms about a social scenario, but also to engage in the metacognitive task of thinking about one's own thinking before formulating a response. It is not possible to determine the basis of these subgroup differences, but the factors that need to be explored in future studies include cognitive-linguistic subskills (e.g. vocabulary, syntactic competence, speed of thinking, and planning and organisation), as well as self-efficacy for verbal communication.

Examination of the LI subgroup did not verify our hypothesis that they would be more likely to have a history of violent offending. In fact, violent offending was distributed fairly equally across the two subgroups. This is another issue that warrants further examination, as our sample size was small, the effect-size of any possible association between these variables is unknown, and our exclusion criteria may have masked associations between these variables. Finally, the relationship between LI and self-reported substance misuse in young offenders was examined for the first time in this study. Ironically, the only trend apparent was that higher rates of cannabis use were reported by boys in the *non*-LI subgroup. This may reflect the fact that substance use in young people is related to social networks (Cotterell, 1996), which may be lacking in the lives of LI young offenders.

Importantly, many of the JJ boys in this study who had some form of LI *had* been identified as needing remedial services and in many cases such services were provided. The fact that these same boys then went on to detach early from school and engage in antisocial behaviour indicates that these early intervention efforts should be more systematic and better coordinated across a range of mental health and educational services. Cohen and others (1993) have observed that where language problems co-exist with behaviour disturbance, the latter tends to be the overriding concern for adults in the young person's life (e.g. parents and teachers). Our findings suggest that children who display both challenging behaviour and learning difficulties need to be assessed by a speech language pathologist, in order to determine whether their development of key expressive and receptive language skills is occurring at the expected rate. Targeted interventions for high-risk preschoolers, such as that described by Freiberg and others (2005) might avert some of the complicated and resistant languagebehaviour-literacy breakdowns that occur in school-aged children from high-risk backgrounds.

Our findings call into question the efficacy of literacy interventions for young offenders when oral language competence is not addressed first. The developmental literature is clear about the links between oral language competence and the transition to literacy in the early school years (see Snow and Powell, 2004a, for a review). Perhaps some of the school failure experienced by high-risk youth may be attributable to inadequate preparation for the transition to literacy in the early years. Further, literacy programmes for young offenders may need to be reconceptualised to strengthen oral language competence first, rather than expecting that literacy skills can simply be back-filled within the corrections system.

In addition to information about drug effects and specific harm reduction strategies, JJ intervention programmes typically emphasise a range of core life skills, for example values clarification, personal goal setting, problem solving and decision-making skills, and the ability to recognise, understand and communicate feelings (Gilvarry, 2000). Clearly, these are all skills, which are language-based and are likely to be significantly compromised in the target group. They are, however, relied upon as vehicles by which personal development can be enhanced. A better understanding of the language skills of young offenders is likely to be a major step towards improving the efficacy of such programmes.

Conclusions

This study provides firm evidence of the need to conceptualise male juvenile offenders as being high risk for unidentified but significant levels of disadvantage with respect to oral language abilities. Given that young offenders with overt mental health problems were excluded from the study, it is probable that the effect sizes on many of our measures are under estimates of their real size in the wider young offender population.

Taken together, the language and social skill deficits described here are likely to have pervasive detrimental effects on the ability to negotiate the business of everyday life in a way that is judged as socially acceptable and competent. The risk of being labelled rude and/or unco-operative is high, particularly in the subgroup of JJ boys who are language impaired. Keeping high-risk boys engaged at school is a formidable challenge for educators and social policy-makers. Perhaps the answer to the rhetorical question posed by the title of this paper is that early, more coherent intervention that targets oral language competence is a strategy poised for urgent empirical investigation.

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References

- Australian Bureau of Statistics. 2006. Socio-economic Indexes for Areas Index of Disadvantage. Available at: http://abs.gov.au [Accessed on 20 July 2006].
- Beitchman JH, Douglas L, Wilson B, Johnson C, Young A, Atkinson L, Escobar M, Taback N. 1999. Adolescent substance use disorders: findings from a 14-year follow-up of speech/language impaired and control children. *Journal of Clinical Child Psychology* 28: 312–321.
- Bryan K. 2004. Preliminary study of the prevalence of speech and language difficulties in young offenders. *International Journal of Language & Communication Disorders* **39**: 391–400.
- Cohen NJ. 2001. Language Impairment and Psychopathology in Infants, Children and Adolescents. Sage: Thousand Oaks, CA.
- Cohen NJ, Davine M, Horodezky N, Lipsett L, Isaacson L. 1993. Unsuspected language impairment in psychiatrically disturbed children: prevalence and language and behaviour characteristics. *Journal of the American Academy of Child and Adolescent Psychiatry* 32: 595–603.
- Conti-Ramsden G, Botting N, Faragher B. 2001. Psycholinguistic markers for specific language impairment (SLI). Journal of Child Psychology and Psychiatry and Allied Disciplines 42: 741–748.
- Cotterell J. 1996. Social Networks and Social Influences in adolescence. Routledge: London.
- Davis AD, Sanger DD, Morris-Friehe M. 1991. Language skills of delinquent and nondelinquent adolescent males. *Journal of Communication Disorders* 24: 251–266.
- Freiberg K, Homel R, Batchelor S, Carr A, Hay I, Elias G, Teague R, Lamb C, 2005. Creating pathways to participation: a community-based developmental prevention project in Australia. *Children &* Society **19**: 144–157.
- Gibbs JC, Potter GB, Goldstein AP. 1995. The EQUIP Program. Teaching Youth to Think and Act Responsibly Through a Peer-Helping Approach. Research Press: Champaign, IL.
- Gilvarry E. 2000. Substance abuse in young people. *Journal of Child Psychology and Psychiatry* **41**: 55–80.
- Hollin CR. 1996. The social competence of young offenders: a return to basics. In *Psychology, Law and Criminal Justice: International Developments in Research and Clinical Practice*. McMurran M, Wilson C (eds). Walter de Gryter: Berlin; 469–484.
- Humber E, Snow PC. 2001. The language processing and production skills of juvenile offenders: a pilot investigation. *Psychiatry, Psychology and Law* 8: 1–11.
- Jessor R, Jessor SL. 1977. Problem Behavior and Psychosocial Development: A Longitudinal Study of Youth. Academic Press: New York.
- Kaufman AS, Kaufman NL. 1990. *Kaufman Brief Intelligence Test*. American Guidance Service: Circle Pines, MN.
- Locke A, Ginsborg J, Peers I. 2002. Development and disadvantage: implications for the early years and beyond. *International Journal of Language & Communication Disorders* **37**: 3–15.
- Loeber R, Farrington DP, Stouthamer-Loeber M, Van Kammen WB. 1998. Multiple risk factors for multi-problem boys: co-occurrence of delinquency, substance use, attention deficit, conduct problems, physical aggression, covert behavior, depressed mood, and shy/withdrawn behavior. In *New Perspectives on Adolescent Risk Behavior*. Jessor R (ed.). Cambridge University Press: Cambridge; 90–149.
- Paul R. 2001. Language Disorders from Infancy through Adolescence. Assessment and Intervention, 2nd edn. Mosby: St Louis, MO.
- Putnins AL. 1999. Literacy, numeracy and non-verbal reasoning skills of south Australian young offenders. *Australian Journal of Education* **43**: 157–171.
- Sanger D, Maag JW. 1994. Language problems among students with emotional and behavioral disorders. *Intervention in School and Clinic* **30**: 103–108.

- Sanger DD, Hux K, Ritzman M. 1999. Female juvenile delinquents' pragmatic awareness of conversational interactions. *Journal of Communication Disorders* 32: 281–295.
- Sanger DD, Creswell JW, Dworak J, Schultz L. 2000. Cultural analysis of communication behaviors among juveniles in a correctional facility. *Journal of Communication Disorders* 33: 31–57.
- Sanger D, Moore-Brown B, Magnuson B, Svoboda N. 2001. Prevalence of language problems among adolescent delinquents. *Communication Disorders Quarterly* 23: 17–26.
- Semel E, Wiig EH, Secord W. 1996. *Clinical Evaluation of Language Fundamentals*, 3rd edn. The Psychological Corporation: San Antonio, TX.
- Smart D, Vassallo S, Sanson A, Richardson N, Dussuyer I, McKendry B, Dussuyer I, Marshall B, Toumbourou J, Prior M, Oberklaid F. 2003. Patterns and Precursors of Adolescent Antisocial Behaviour. Types, Resiliency and Environmental Influences. Australian Institute of Family Studies: Melbourne.
- Snow PC, Powell MB. 2004a. Developmental language disorders and adolescent risk: a public health advocacy role for speech pathologists? *Advances in Speech Language Pathology* **6**: 221–229.
- Snow PC, Powell MB. 2004b. Interviewing juvenile offenders: the importance of oral language competence. *Current Issues in Criminal Justice* 16: 220–225.
- Snow PC, Powell MB. 2005. What's the story? An exploration of narrative language abilities in male juvenile offenders. *Psychology, Crime and Law* 11: 239–253.
- Spinelli FM, Ripich DN. 1985. A comparison of classroom and clinical discourse. In *School Discourse Problems*. Ripich DN, Spinelli DN (eds). Taylor & Francis: London; 179–196.
- Stein NL, Glenn CG. 1979. An analysis of story comprehension in elementary school children. In *New Directions in Discourse Processing*. Freedle RO (ed.). Ablex Publishing Corporation: New Jersey; 53–120.
- Wiig EH, Secord W. 1989. Test of Language Competence-Expanded Edition. The Psychological Corporation: San Antonio, TX.

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