

The language processing and production skills of young offenders: Implications for enhancing prevention and intervention strategies

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Dr. Pamela Snow¹
Dr. Martine Powell²

¹ Department of Public Health, School of Health and Environment, La Trobe University, Bendigo, 3552

² School of Psychology, Deakin University, Melbourne, 3125.

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EXECUTIVE SUMMARY

While much is known about the poor literacy (reading and writing) skills of juvenile offenders, there has been little research examining the oral language capacities of this at-risk population. This study examined the oral language processing and production skills of a group of 30 young male offenders completing community-based juvenile-justice orders. The performance of this group was compared with that of a group of 50 males attending state government secondary schools in the same DHS region of metropolitan Melbourne. In spite of the fact that the young offenders studied were an average of two years older than the comparison group, they performed significantly more poorly on all but one of the measures employed. These findings indicate that young offenders are at high risk for difficulties with auditory processing, manipulating and understanding abstract linguistic concepts (figurative language, metaphor, ambiguities), and have difficulty using story grammar (a universal structure for relaying information in a logical and sequential manner) to generate a simple narrative.

These findings have implications in three broad domains:

Forensic interviewing of young offenders

Early intervention for young children who display comorbid learning and behaviour disturbances

Service delivery at the program level for young offenders engaged with the juvenile justice system.

Implications of these findings for further research are also articulated. These pertain principally to examining the relationship between language skills and social skill, and exploring the ways in which the findings can be applied to service delivery models within the juvenile justice system. Longitudinal research will be required in order to explore possible causal connections between developmental language impairment and risk for juvenile offending.

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We wish to thank the Department of Human Services (Juvenile Justice Section) for permission to carry out the study. Staff at the Springvale and Seaford Juvenile Justice Units, in particular Mr. David Baxter and Ms Ruth Marshall are thanked for their assistance in recruiting participants for the study.

We are grateful to the Department of Education and Training for permission to collect control data from state government high schools. Particular thanks are extended to staff at the following secondary schools for assistance in recruiting students for the comparison group: Westall Secondary College (Ms Lee West), Mt Erin Secondary College (Mr. Roger Page), Frankston High School (Mr. George Jolley), Heatherhill Secondary College (Mr. Andy Hamilton and Mr. Rob Newton), and Coomoora Secondary College (Ms Karin Liedke).

Finally, our thanks are extended to the 80 young people who agreed to participate in this study – 30 young offenders and 50 school students. Research of this nature is critical in building up a more detailed understanding of this high-risk population, but is not possible without the willingness of individual participants to engage with the research process.

BACKGROUND AND RATIONALE FOR THE STUDY

In young offenders, there is a confluence of overlapping developmental disorders and influences – ranging from chaotic home environments, conduct disorders, attentional disorders, learning disabilities, truancy, alcohol and other drug abuse, executive (cognitive) disturbances, and poor social skills (Loeber, Farrington, Stouthamer-Loeber, & Van Kammen, 1998). It is, in fact, not possible to conduct meaningful research with this population without the notion of *comorbidity* as a conceptual foreground. While it is generally well known that a number of developmental disorders (in particular, learning and attentional problems) are over-represented in the young offender population, very little research has closely examined the underlying *language* abilities of this population.

Language skills begin to emerge in early infancy, culminating by late adolescence in mastery of a range of phonological, lexical, syntactic, semantic and pragmatic (social skill) competencies. These enable a speaker to convey and receive meaning in a range of communicative contexts, via both spoken and written media. Critical aspects of language development occur during adolescence, e.g., skills in turn-taking, conversational repair, comprehension and use of irony and metaphor, and the ability to “code switch”, i.e., make adjustments to aspects of communicative style according to the demands of the context (Owens, 1996). During adolescence, language development is both sensitive to, and instrumental in, academic success and the formation and maintenance of interpersonal relationships (Paul, 1995). Developmental language disorders frequently underlie school-based learning difficulties, but are typically obscured by the emphasis which is placed on competence with reading and writing in the classroom setting (Donahue, 1985; Paul, 1995). Importantly, however, language problems are modifiable, given the availability of, and timely access to, appropriate services.

Much previous work has examined *social skills* in young offenders, however the core language abilities underpinning these social skills have received virtually no

attention in this population.

This is significant, in that

- (a) interventions delivered to young offenders (e.g., drug treatment programmes) are based on the tacit assumption that language abilities in this population are “normal”, however there are strong grounds to suspect that this is not the case;
- (b) interventions aimed at improving the social skills of young offenders may be fundamentally flawed if they do not take account of difficulties with underlying language processing and production skills
- (c) Language problems represent invisible, substantially handicapping, but potentially modifiable difficulties – provided that an evidence-base regarding these difficulties is available.

By establishing an evidence-based relating to the language skills of young offenders, this field of research stands to inform service delivery models at all points in the intervention continuum: ranging from early identification of at-risk children, to social skills programs aimed at reducing recidivism in this population.

The importance of language

Language competence comprises a number of inter-related skills pertaining to the mastery of: the sound-system used in one’s native language (phonology); vocabulary and shades of meaning (semantics); sentence construction (morphology and syntax); and the social morés pertaining to situational aspects of how language is used (pragmatics). Further, a competent language user must be able to negotiate a variety of discourse genres, or forms (Hartley & Griffith, 1989). These include *conversation* (usually a two-way interaction between speakers, with a social and/or information exchange purpose), *narratives* (rule-governed schema which allow one person to relate a story (e.g., about a personal experience) in a logical and sequential manner to a listener, and *procedural discourse* (a genre which allows a speaker to instruct a listener about how to perform a particular activity). There is some evidence to indicate that these discourse genres do not place equivalent cognitive and/or linguistic demands on speakers (Coelho et al.

1990; Hartley & Jensen, 1991). Competence in these genres should be refined during adolescence, as the speaker's ability to negotiate more abstract concepts increases, and the ability to take into account the perspective of the listener develops (Paul, 1995). As Spinelli and Ripich (1985) observed, discourse competence draws heavily on the speaker's attentional skills, turn-taking skills, ability to attend to topic coherence, repair of breakdown (e.g., when a listener misunderstands), and role adjustment (i.e., altering one's style of communication according to the context and the relationship between interactants). Difficulty acquiring and consolidating language/discourse skills during childhood and adolescence is highly predictive of academic failure (Donahue, 1985; Paul, 1995).

The *connected discourse difficulties* of young people with learning disabilities include reduced speed and efficiency of (verbal) information processing, poor topic management skills, difficulties with turn-taking rituals, difficulty initiating conversations and managing topic change, and difficulty providing the listener with adequate and/or relevant information (Liles et al., 1995; McCord & Haynes, 1988; Merritt & Liles, 1989; Paul, 1995; Roth & Spekman, 1986).

Language skills and young offenders

A small number of studies (e.g., Davis et al., 1991; Sanger et al., 1999; 2000) have examined the connected discourse skills of young offenders. In their 1999 study, Davis and co-workers examined the language skills of 24 incarcerated youths, whom they compared with a group of non-incarcerated peers, and reported that the delinquent youths performed significantly below the comparison group. They concluded that young offenders constitute a "...population of students who are frequently not identified as having language and learning problems" (p.261). In their qualitative investigation into female delinquents' awareness of pragmatic language (social skill) devices, Sanger and co-workers (1999) reported that while these young women may be able to *state* many of the conventions governing conversational interactions, they were less successful at displaying interactional *behaviours* consistent with these conventions. These

findings were reinforced in a subsequent report published by Sanger and co-workers (2000). In this study, Sanger et al. found that on the basis of their administration of standardised language measures, 22% of the sample were identified as potential candidates for language intervention services, however none had actually received services specifically related to language abilities. This is consistent with the fact that there has, unfortunately, been comparatively little research examining the *language* micro-skills, as opposed to the more macro *social skills* of young offenders. This remains a significant gap in terms of both research activity and intervention applications.

Deficits on *test-based measures of language ability* have also been identified in young people at risk for substance abuse (Najam et al., 1997), however this area has not been well researched. Difficulties reported by Najam et al. included reduced ability to perform abstract manipulations on language (resolving ambiguity), problems drawing inferences from implied or incomplete messages, and difficulties interpreting figurative language, such as metaphor, analogies, and humour. There is also a small, recently emerged body of evidence which directly links developmental language disorders and risk for substance abuse. Beitchman et al. (1999) reported on a 14-year prospective follow-up study of 244 speech and language impaired children who were initially identified at age five. At age 19, 12.7% of the sample met criteria for substance use disorders, however this did not differ significantly from controls, nor did the *number* of substances being misused differentiate the clinical group from the control group. The speech/language impaired group was also similar to controls with respect to the mean age of onset of substance misuse. There were, however, some important differences between and within the groups studied. The speech/language impaired group had the highest number of comorbid psychiatric diagnoses, with almost 60% of those in the clinical group with a substance use disorder meeting criteria for affective disorder (compared with 7.1% of non-substance abusing speech/language impaired participants). Further, those in the speech/language impaired group with substance use disorders had the highest number of additional diagnoses – compared both with speech/language impaired

participants *without* substance use disorders, and with controls. Interestingly, early identification (age 5) of CD did not discriminate between substance using and non-substance using speech/language impaired participants at the age 19 follow-up. This finding led Beitchman et al. to speculate that conduct symptoms shown by the speech/language impaired children are secondary to their communication problems. This possibility has also been noted by Windsor (1995), who observed that challenging behaviours can serve communicative functions in language-learning disabled students. Windsor cited evidence for the diminution of such behaviours after more socially appropriate forms of communication are acquired.

In a recent Australian study, Putnins (1999) examined the literacy, numeracy and non-verbal functioning of juvenile offenders, and found performance decrements across all three domains, in comparison with student peers. Putnins also reported that just on 80% of this sample had been expelled or suspended from school (compared with 11% of the comparison group). Putnins speculated about the nature of the relationship between underachievement and antisocial behaviour, suggesting that clarification of this nexus has important intervention implications. Further, Putnins argued that "...good basic literacy and numeracy skills might act as protective factors that ameliorate other adversities....educational and reasoning skills are better regarded as personal competencies that help to protect an individual from delinquency" (pp. 166-167).

Evidence from the Chief Investigator's work with a related population of at-risk young people (those who have sustained brain damage in motor vehicle accidents) attests to the close nexus between cognitive functioning and connected discourse abilities (Snow et al., 1998). Obviously, such populations are not mutually exclusive; young people with learning disabilities and/or a history of conduct disorders are, for example, more likely to sustain brain injuries in motor vehicle accidents (Haas et al., 1987), and Tarter et al., (1995) have observed that "...the motivational style of substance abusers may predispose to repetitive neurological injury that ultimately is expressed as impaired cognitive capacity" (p.15).

Because of the integral role which language/discourse skills play in mediating relationships with others, this field of research overlaps significantly with the social skills domain. Not surprisingly, low peer acceptance has been identified in young people who display these language processing and production difficulties (Paul, 1995). Notably, this phenomenon has also been identified in young substance abuse populations (Donohue et al., 1998; Simonian et al., 1991), and in young offenders (Hollin, 1996), thus raising the possibility that reduced social competence in this group is associated with compromised underlying language/discourse skills. This association has not been closely investigated to date, but is a question which could be pursued by this research team at a later date.

There is a large body of evidence attesting to the link between a range of specific developmental disorders (e.g., attention-deficit/hyperactivity disorder [ADHD], learning disability) and adolescent substance misuse, particularly where these co-exist with conduct disorder (e.g., Biederman et al., 1997; Whitmore et al., 1997). A range of cognitive/executive function disturbances have also been identified in young people diagnosed with some/all of these developmental disorders, e.g., poor planning and organization, poor self-monitoring, reduced impulse control, and difficulties sustaining attention and concentration (Dawes et al., Tarter, & Kirisci, 1997; Giancola et al., 1996; Gorenstein, 1990). Reduced speed of information processing has been suggested as a mechanism underlying poor social skills in young offenders. Hollin (1996), for example, suggested that "... aggressive and violent people search for and perceive fewer social cues....are more likely to interpret the behaviour of other people in a hostile manner.... (and) generate fewer options for dealing with a social situation" (p.473). In a study examining the language and cognitive skills of young female substance abusers, Tarter (1995) reported particular decrements in tasks sensitive to linguistic information processing and sustained attention. These workers speculated that the impulsivity frequently described in young substance abusers may, in fact, stem from difficulty using language as a means of regulating their own behaviour. Speed of information processing has been implicated in the social skills of related

clinical e.g., people who have sustained severe traumatic brain injury (Snow et al., 1998), and much remains to be learnt of its role with respect to social skills in young offenders.

Historically, however, there has been little multidisciplinary research in this area, and this has hindered detailed examination of language processing and production abilities of young offenders. The ability to engage in a superficial social exchange provides no guarantee as to the adequacy of an individual's language processing and production skills. Unfortunately, the lack of research in this area means that offender intervention programs are typically based on the untested assumption that language abilities are "normal" in young offenders. The empirical evidence that this may not be so is recent but compelling (Najam et al., 1997; Sanger et al., 1999, 2000).

The aim of this study, therefore, was to investigate the hypothesis that young male offenders completing community-based orders would perform more poorly than typically-developing peers on a range of oral language processing and production tasks. Tentative support for this hypothesis was derived from the pilot investigation for this project (Humber & Snow, 2001).

METHOD

Participant Selection Criteria

1. Young Offender Group

Participants in this group were required to meet the following inclusion criteria:

Male sex

Age 13-19 years

Undergoing a community-based Juvenile Justice order (e.g., youth supervision order, youth attendance order) in the State of Victoria

Majority of schooling completed in an English-speaking country

No history of major psychiatric illness (e.g., schizophrenia, bipolar disorder), traumatic brain injury, hearing impairment, or intellectual impairment.

2. Comparison Group

Participants in this group were required to meet the following inclusion criteria:

Male sex

Age 13-19 years

Attending a government high school in the same DHS region as the young offenders group

Majority of schooling completed in an English-speaking country

No history of major psychiatric illness (e.g., schizophrenia, bipolar disorder), traumatic brain injury, hearing impairment, or intellectual impairment.

No history of offending.

Ethics Approvals

Permission to carry out this study was granted by the following bodies:

Deakin University Human Research Ethics Committee

Department of Human Services (Victoria) Ethics Committee

Department of Education, Employment and Training (now the Department of Education and Training)

Procedure

In the Juvenile Justice settings, a Research Assistant provided staff with a summary list of the inclusion criteria for the study, and regularly liaised with staff in an effort to identify eligible young people who could be approached to participate. A similar procedure was followed in the school settings, where a member of staff was appointed as a liaison person for the project. Young people who agreed to participate in the project were then seen at a mutually convenient time. Assessment sessions were approximately 45 minutes in duration.

On completion of the informed consent requirements, the following tasks were administered in a random order for each participant:

Three of the four subtests of the Test of Language Competence Level 2 – Expanded edition (TLC-E; Wiig & Secord, 1989). The sub-tests included were: Ambiguous Sentences, Listening Comprehension – Making Inferences, and Understanding Figurative Language. Level 2 of the TLC–E was designed to identify and measure disorders of pragmatic language competence in adolescent speakers. The TLC-E comprises four subtests, of which subtests 1,2 and 4 were employed in this study. Subtests 1 and 2 cover propositions in narrow contexts, and subtests 3 and 4 cover propositions in communication–like contexts. As the narrative task was employed to generate connected discourse, subtest 3 was not included in this study. The composite reliability for the subtests ranges from .75 to .82 across all ages.

Subtest 1(Ambiguous Sentences) requires the interpretation of sentences with lexical, surface structural, and underlying structural ambiguities, for which two alternative meanings are identified and explained by the participant, e.g., “John was looking up the street” – he was either standing on the footpath looking at people up the street, or he was looking up the street in a street directory. Subtest 2 (Listening Comprehension: Making Inferences) requires the participant to make inferences based on incomplete information which is presented as an event chain, by choosing two plausible story outcomes from four choices. Subtest 4 (Figurative Language) requires the participant to interpret metaphoric expressions, by selecting an alternative from a choice of four options, e.g., recognising that “There is rough sailing ahead of us” has a non-literal meaning concerning difficult times. In each of these subtests, the participant both heard and saw the printed stimuli, which were placed in clear view and read aloud by the examiner.

The Speed of Comprehension of Language Processing (SCOLP) Test (Baddeley et al., 1992). This comprises two subtests: the Speed of Comprehension Test and the Spot-the-Word Test. The Speed of Comprehension Test has been shown to have a test-retest reliability of 0.93 (Baddeley et al., 1992), and requires the respondent to circle “yes” or “no” to indicate agreement (or not) with a series of statements, as quickly as possible within a two-minute time frame. The

statements draw on world knowledge and require literacy skills at a junior primary school level (e.g., “Oranges grow on trees”). Baddeley et al. reported that the speed with which participants can verify the statements is correlated with verbal intelligence and verbal skills, regardless of level of formal education. Poor performance may reflect either brain damage or the performance of a participant with limited verbal skills. The Spot-the-Word Test has a test-retest reliability of 0.77 and requires rapid lexical (word choice) decisions, i.e., respondents must decide whether a given word is “real” or not. Some real words are in common usage while others are more obscure (e.g., “haddock”). The test is a measure of the richness of the participants’ vocabulary, and indirectly of their verbal intelligence (Baddeley et al., 1992). According to the authors, this subtest provides more crystallised and robust estimates of verbal intelligence than the Speed of Comprehension Test.

A measure of narrative discourse ability – story grammar competence as measured by a description of the cartoon stimulus known as “The Flowerpot Incident” (see Appendix 1). The “Flowerpot Incident” is a sequentially organised six-frame black and white cartoon. It has been employed in a number of previous studies of narrative discourse ability in potentially language-impaired populations (e.g., Davis, O’Neil-Pirozzi, & Coon, 1997; Hartley & Jensen, 1991; Snow et al., 1999). Because conversation-like discourse is difficult to standardise, and time-consuming to measure (Snow, Douglas & Ponsford, 1999), narrative discourse has been identified as a potentially more efficient measure of connected discourse. According to Stein and Glenn (1979), a well developed narrative comprises 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). Westby (1982) has observed that narrative development is related to Piagetian stages of cognitive development and is a late-emerging cognitive skill. This link between language and cognition is central to the inclusion of narrative discourse tasks in a number of studies of language disordered populations, e.g., children with normal and/or atypical language development (e.g., Liles, Duffy, Merritt, & Purcell, 1995),

students with learning disorders (Roth & Spekman, 1986), adults who have sustained traumatic brain injury (e.g., Hartley & Jensen, 1991; Snow et al., 1999), and adults with language disorders secondary to stroke (e.g., Bottenberg & Lemme, 1991). Production of an adequate narrative requires the speaker to maintain an oral monologue, while the listener assumes a relatively passive role. The task requires the speaker to use perspective taking (i.e., assuming the standpoint of the listener, who is naïve) and adjust the message correspondingly. The picture stimulus remained in view of both the participant and the clinician during testing.

In addition to these direct measures of language competence, some background information was requested of participants in relation to their developmental history. Participants were asked about a history of developmental problems such as speech delay, learning difficulties at school, and attentional disorders. They were also asked to outline what, if any, interventions had been provided in relation to these difficulties. As one of the relevant institutional Ethics Committees did not give approval for direct questioning of participants about their use of licit and illicit substances, this aspect of the participants was difficult to gauge. Some limited information about the types of drug-related offences for which the young offenders had faced charges, was however, able to be obtained.

RESULTS

Demographic Characteristics

It was originally intended that two groups of 50 participants would be studied. Recruitment of participants in the young offender group, was, however, slower than expected, and it was decided that in order to complete the project within the allocated time and budget, a reduced sample size of $n = 30$ young offenders would be studied. Hence the sample sizes at the conclusion of the study were 30 (offender group) and 50 (comparison group). On all dependent variables under consideration, tests for homogeneity of variance were conducted. None of these yielded statistically significant results, hence inferential statistics

which presume equal variances are reported. Because of the specific nature of the hypotheses under study, and the fact that support for these hypotheses had already been derived from the Pilot Project (Humber & Snow, 2001), no adjustments were made to the alpha levels employed to determine the statistical significance of the inferential analyses conducted. Alpha was set at 0.05 for all comparisons.

Table 1 summarises the descriptive statistics pertaining to the two groups with respect to the variables age and years of formal schooling. In addition to probability-based hypothesis testing, effect sizes (*d*) are reported on each of the parametric test measures. Effect sizes of around .2 are generally considered small, with .5 and .8 indicating medium and large effects respectively (Minium et al., 1993).

Table 1
Descriptive statistics for age and years of education completed: both groups.

	Group					
	<i>Offender</i>		<i>Comparison</i>		<i>t</i>	<i>p</i>
	Mean	SD	Mean	SD		
Age (years)	16.5	1.4	14.5	1.1	6.9	.000*
Years of Schooling	9.1	1.5	8.4	1.2	2.2	.03*

p<0.05 (2-tailed)

As may be seen in Table 1, the young offenders, as a group were an average of two years older than the participants in the comparison group. The young offenders had also completed on average, about half a year more of formal schooling than had the comparison participants. Both of these differences were statistically significant, are central to the interpretation of the overall findings of the study.

Participants were asked to reflect on their early years at school, in order to provide information about identification of developmental problems, and the provision of services to address these. Ten (10) of the 30 young offenders

reported having been identified as “below average” at school with respect to reading and writing skills. Of these ten people, only five reported having received services aimed at ameliorating their difficulties. The assistance received in such cases was input from a teacher’s aide, and “special education”. No participants had received specialised speech-language pathology services. Eight of the 30 young offenders reported having been “picked up” by the police for illicit drug use. In most of these cases (5/8) cannabis was the drug concerned, while two had been intercepted for heroin use and one for both heroin and cannabis use. This needs to be considered alongside evidence that among young *incarcerated* youths, drug abuse (licit and/or illicit) has been reported in the histories of an overwhelming majority of the population. In a recent Australian study, Lennings and Pritchard (1999) reported that over 90% of their sample reported ever-use of cannabis, alcohol, and tobacco, 35% reported having tried heroin, and 64% indicated that they had used hallucinogens. Differences between these findings and those of Lennings and Pritchard are likely to reflect a number of factors, e.g., (i) the fact that in the present study, young people on community-based orders were studied, (ii) the fact that this project was not centrally about young offenders’ drug use, hence participants may have seen this as peripheral to the matter on which they provided their informed consent, and (iii), only indirect measures of drug use were included in this study (i.e. a history of police interception), in order to comply with the nature of the Ethics approvals granted.

In the comparison group, only six of the 50 described themselves as having been “below average” with respect to reading and writing at primary school, but a total of 8 participants reported that they had received assistance in these areas during their early school years. Such assistance usually comprised remedial reading, or input from an integration aide.

One participant in each group reported having been diagnosed with attention-deficit / hyperactivity disorder (AD/HD), and both of these participants had been prescribed dexamphetamine; the young offender concerned had ceased taking medication two years ago, while the participant in the comparison group reported that he was still taking medication at the time of inclusion in the

study. No participants in the comparison group reported having been intercepted by the police for drug use of any type.

Language Measures

1. SCOLP Test

Table 2 displays the descriptive statistics pertaining to performance on both subtests of the SCOLP Test.

Table 2
SCOLP test scores: both groups.

	Group						
	<i>Offender</i>		<i>Comparison</i>		<i>t</i>	<i>p</i>	<i>d</i>
	Mean	SD	Mean	SD			
SCOLP: Speed of Comprehension Test	37.9	18.8	46.4	14.7	-2.2	.01*	.58
SCOLP: Spot the Word Test	37.9	8.5	40.6	5.6	-1.7	.05**	.48

* $p < 0.05$ (one-tailed)

** $p = 0.05$ (one-tailed)

As may be seen in Table 2, the offender group performed significantly more poorly than the comparison group on both subtests of the SCOLP.

2 . Test of Language Competence

Table 3 displays the descriptive and inferential statistics pertaining to performance by groups on each of the three subtests of the TLC-E.

Table 3
TLC-E Descriptive and Inferential Statistics

	Group						
	<i>Offender</i>		<i>Comparison</i>		<i>t</i>	<i>p</i>	<i>d</i>
	Mean	SD	Mean	SD			
TLC-E Subtest 1 (Ambiguous Sentences)	23.6	7.3	28.0	7.2	-2.6	.005*	.61
TLC-E Subtest 2 (Listening Comprehension)	27.3	5.3	28.4	4.9	-1.6	.12	.3
TLC-E Subtest 4 (Figurative Language)	20.9	8.8	24.8	7.5	-2.0	.02*	.52

p<.05 (one-tailed)

As may be seen in Table 3, the offender group performed more poorly than the comparison group on each of the TLC-E measures, however the difference between scores on subtest 2 was not statistically significant.

3. Narrative Discourse

Narrative samples were analysed according to the presence and completeness of the seven story grammar elements identified by Stein and Glenn (1979). These elements are as follows:

The setting – The context for the story which follows

An initiating event – Something which happens to a main character in the story

An internal response - The feelings of the character affected by the initiating event

A plan – An intention on the part of the above character to act/react because of the effects of the initiating event

An attempt – Something this character does in order to respond to the initiating event

Direct consequences – The outcome of this action

Resolution – A description of the way in which events are resolved or reconciled between the characters.

In the case of the *Flowerpot Incident* stimulus, a scoring protocol was developed which takes account of both the structural adequacy of participants' narratives, as well as the level of detail provided in the content. This scoring procedure is summarised in Appendix 2.

Table 4 displays the descriptive statistics pertaining to the performance of both groups on the overall measure pertaining to the narrative discourse task. This measure represents total scores across each of the seven story grammar elements, and thus embodies both the structural and content adequacy of participants' narratives.

Table 4

Performance on overall measure of narrative discourse ability (story grammar content and structure)

	Group						
	<i>Offender</i>		<i>Comparison</i>				
	Mean	SD	Mean	SD	<i>t</i>	<i>p</i>	<i>d</i>
Overall Narrative Discourse score	7.3	1.6	8.8	2.1	-3.2	.0005*	.71

* $p < 0.05$

As can be seen in Table 4, the offender group performed significantly more poorly than the comparison group on this measure, and the effect size of the difference was medium-to-large.

In order to determine what aspect(s) of the narrative discourse performance accounted for this overall group difference, narratives were examined on an element-by-element basis. This was done by performing a group x element analysis for each of the seven story grammar elements.

Figures 1 – 7 display box-plots representing the distribution of scores across each of the seven story grammar elements for both groups. In a box-plot, the box contains the 50% of cases between the 25th and 75th percentiles, while the “whiskers” extend between the lowest and highest values, excluding outliers. The horizontal line represents the median, and the symbol * represents outliers (a value which falls between 1.5 and 3 box-lengths from the upper or lower box edge). Immediately following each of the box-plots, a Chi-square (χ^2) statistic is reported, to provide an indication of the significance of group differences in the distribution of scores across each of the story grammar elements. In cases where more than 20% of cells have expected frequencies of less than 5, a contingency co-efficient has been computed to correct for this.

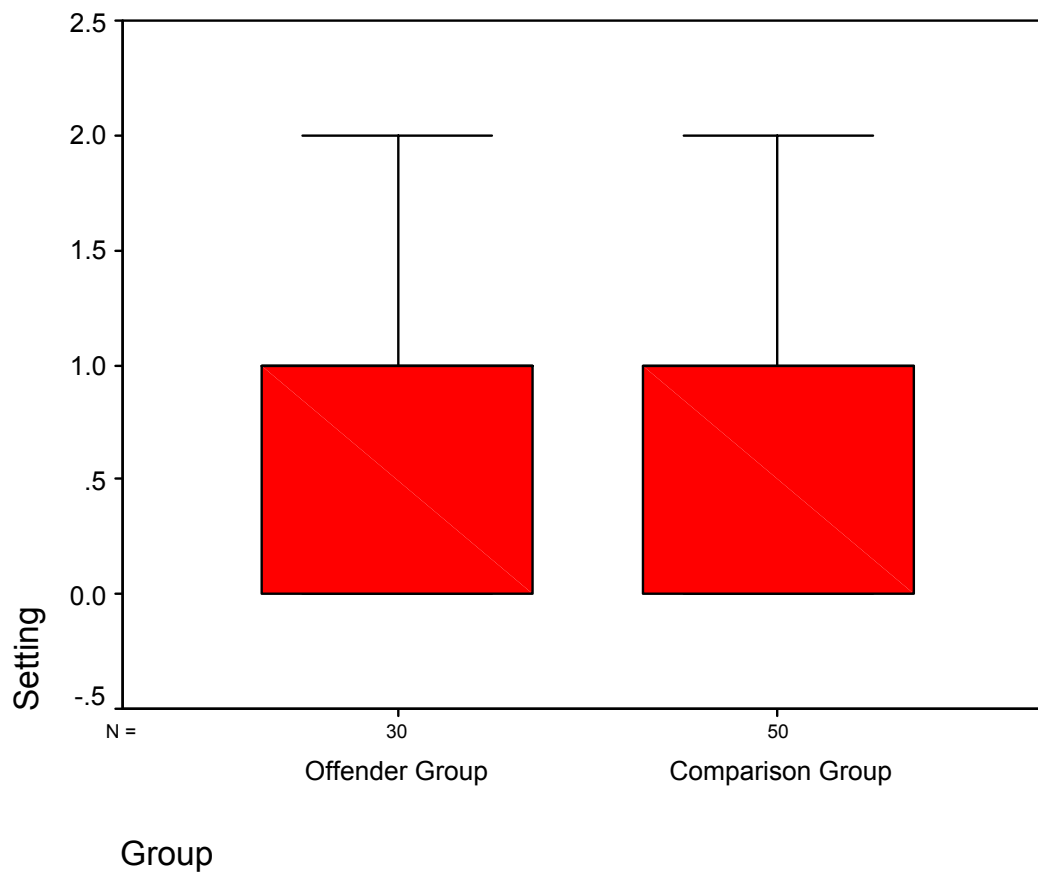


Figure 1

Box-plot for Narrative Discourse: Setting.

The box contains the 50% of cases between the 25th and 75th percentiles. The horizontal line represents the median.

$\chi^2 = .180$; contingency co-efficient = .048; $p > 0.05$ (ns)

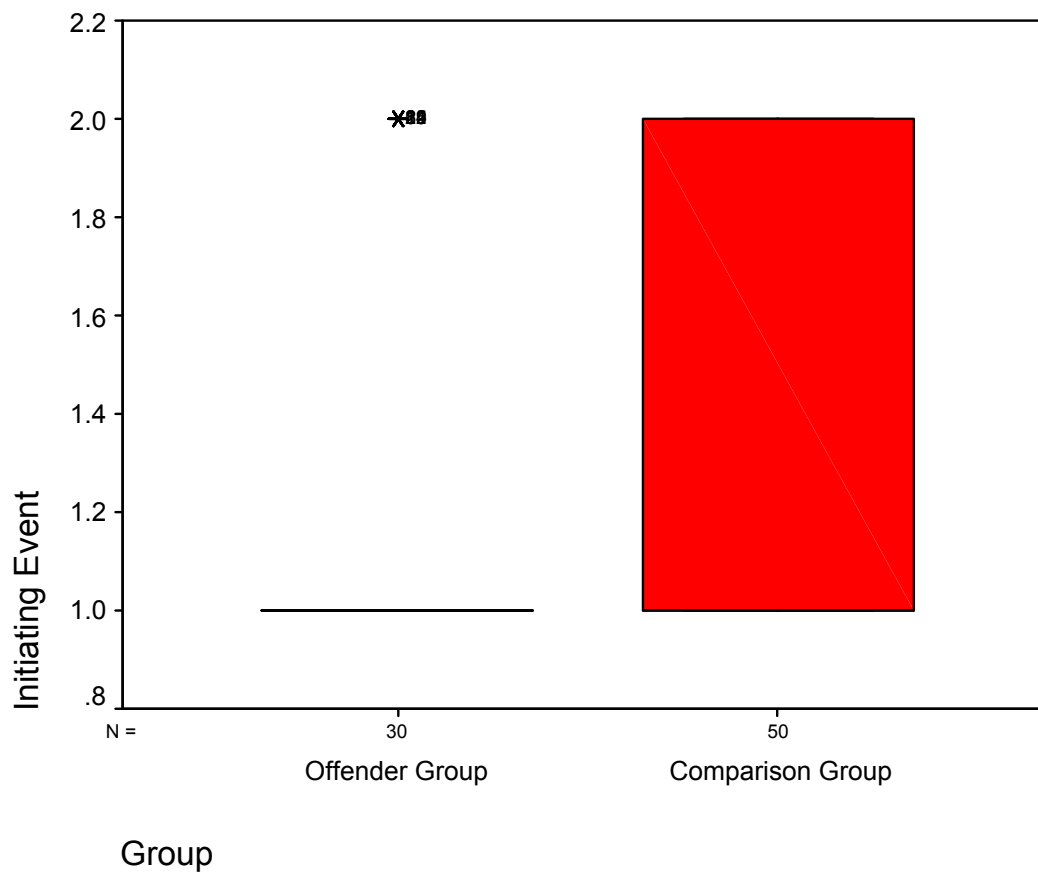


Figure 2

Box-plot for Narrative Discourse: Initiating Event.

The box contains the 50% of cases between the 25th and 75th percentiles. The horizontal line represents the median.

$t = 2.05, p > 0.05$ (ns)

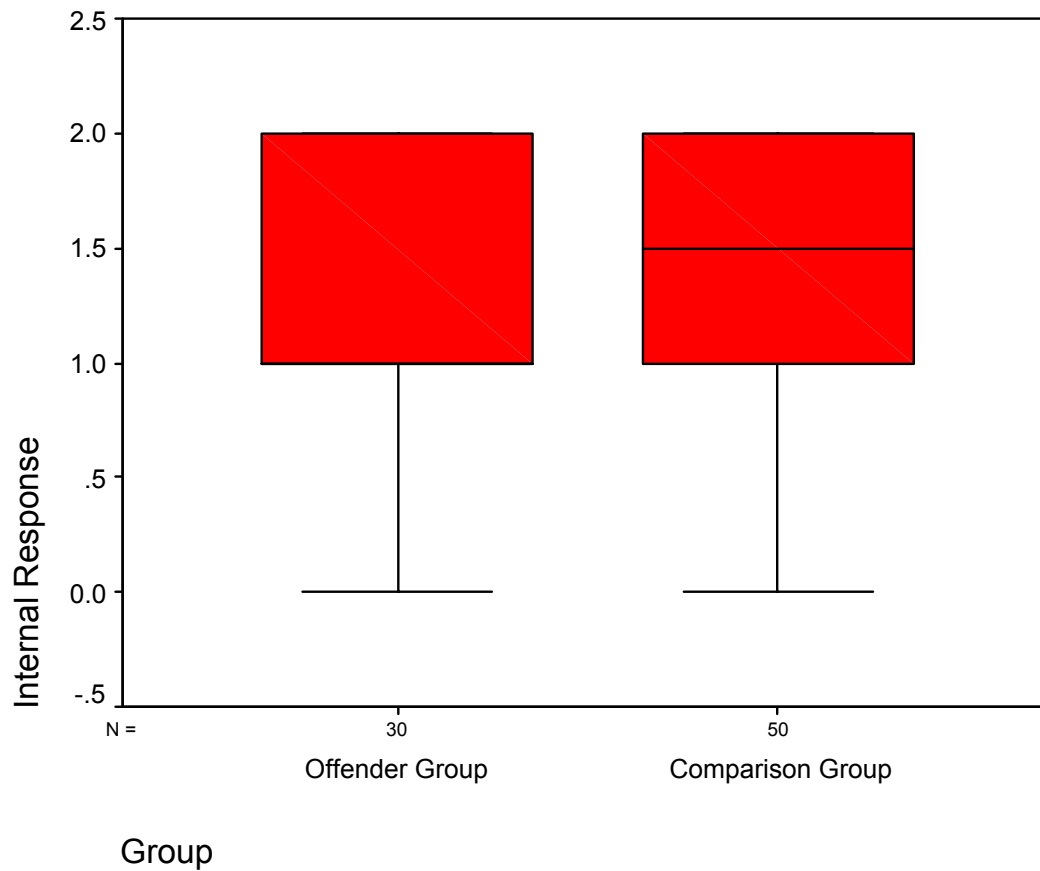


Figure 3

Box-plot for Narrative Discourse: Internal Response

The box contains the 50% of cases between the 25th and 75th percentiles. The horizontal line represents the median.

$\chi^2 = 1.2$, contingency co-efficient = .12, $p > 0.05$ (ns)

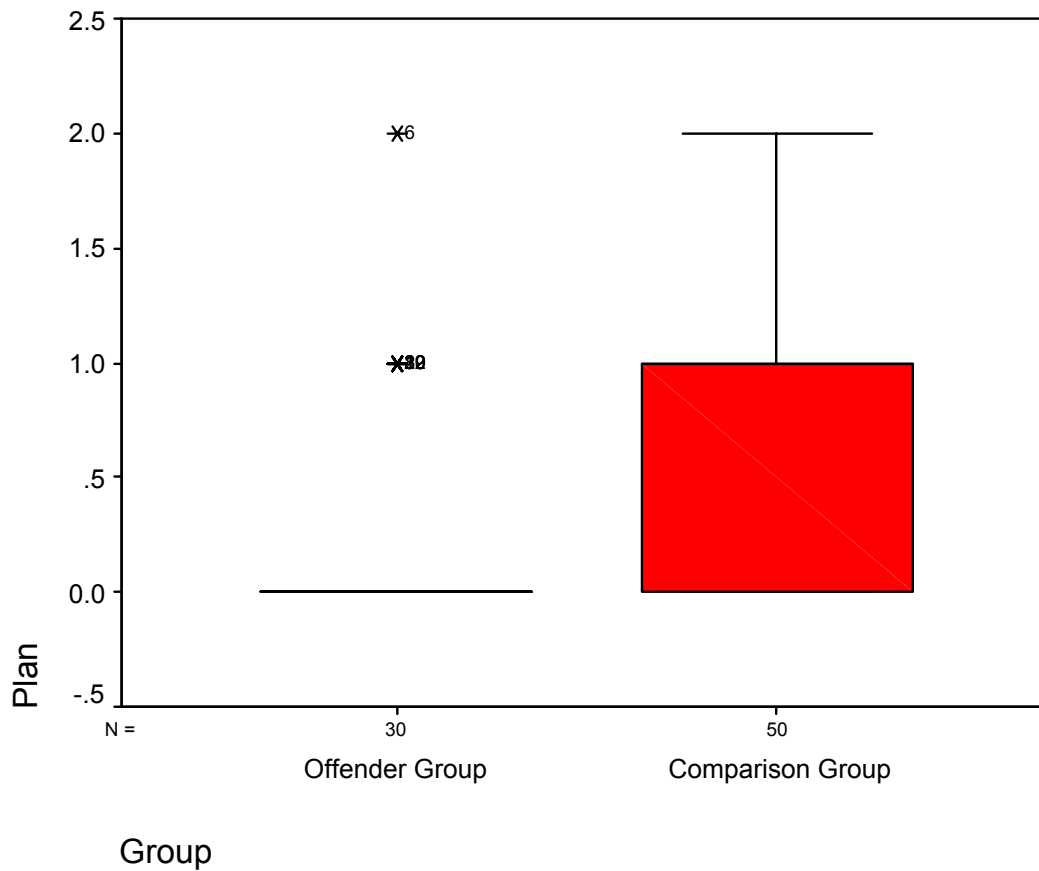


Figure 4
Box-plot for Narrative Discourse: Plan

The box contains the 50% of cases between the 25th and 75th percentiles. The horizontal line represents the median.

$$2 = 7.9, p = .019$$

Table 5 displays the percentage speakers in each group who scored 0, 1, or 2 for this story grammar element.

Table 5

Plan: % speakers scoring 0, 1 and 2 in both groups.

	0 (No relevant content present)	1 (Some relevant content present)	2 (Element complete)
Offender	79.3	17.2	3.4
Comparison	48	34	18

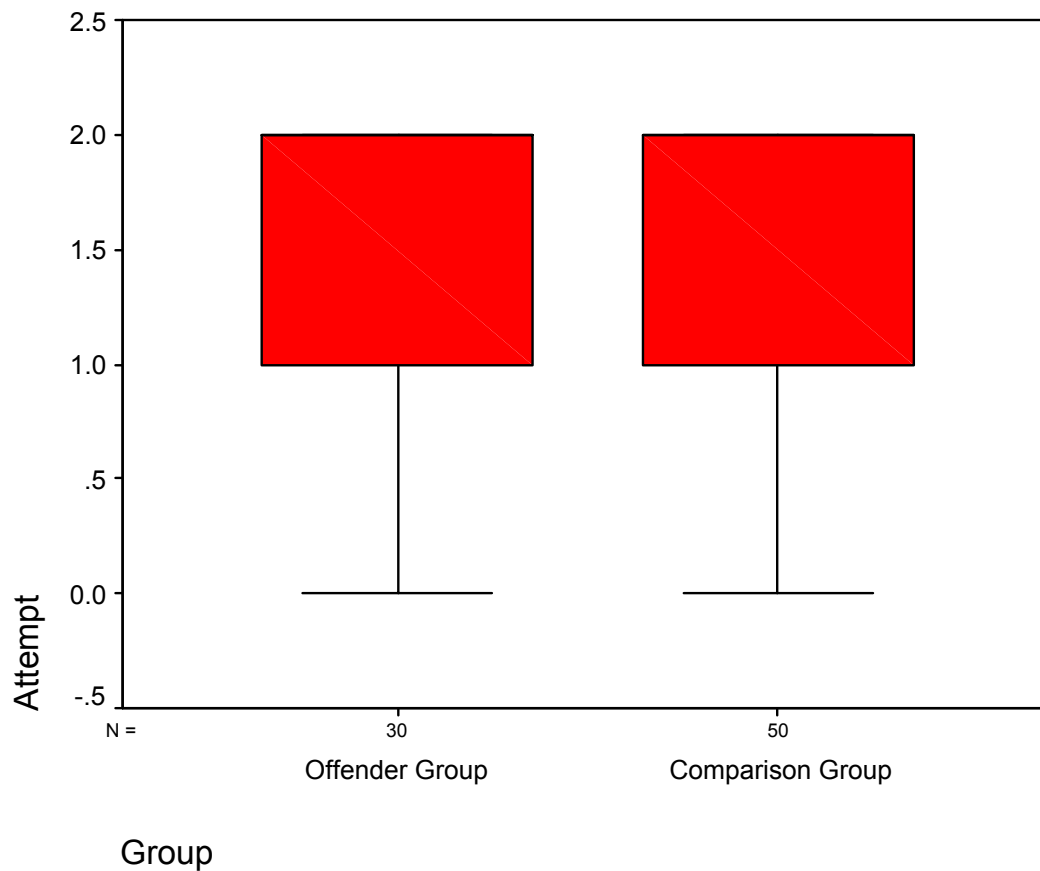


Figure 5
Box-plot for Narrative Discourse: Attempt

The box contains the 50% of cases between the 25th and 75th percentiles. The horizontal line represents the median.

$z = .55, p > 0.05$ (ns)

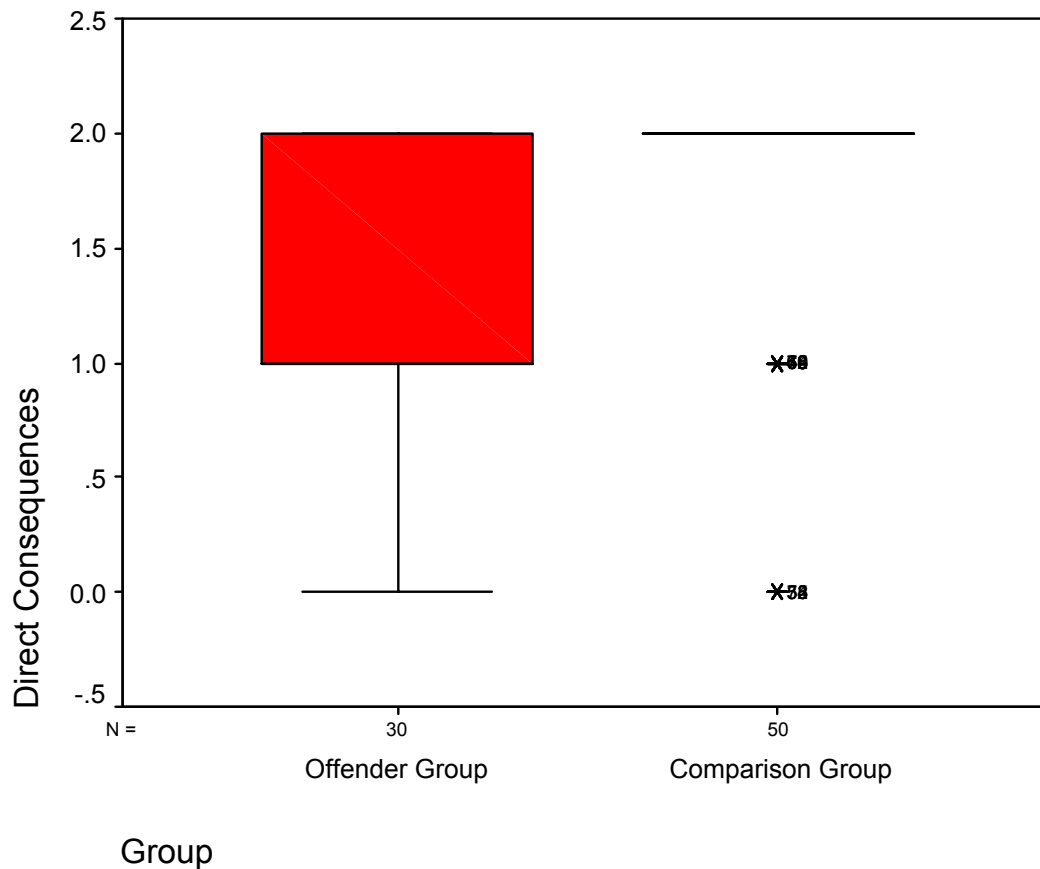


Figure 6

Box-plot for Narrative Discourse: Direct Consequences

The box contains the 50% of cases between the 25th and 75th percentiles. The horizontal line represents the median.

$\chi^2 = 9.6$, contingency co-efficient = .32, $p = .008$

Table 6 displays the percentage speakers in each group who scored 0, 1, or 2 for this story grammar element.

Table 6

Direct Consequences: % speakers scoring 0, 1 and 2 in both groups.

	0 (No relevant content present)	1 (Some relevant content present)	2 (Element complete)
Offender	3.4	48.3	48.3
Comparison	8	16	76

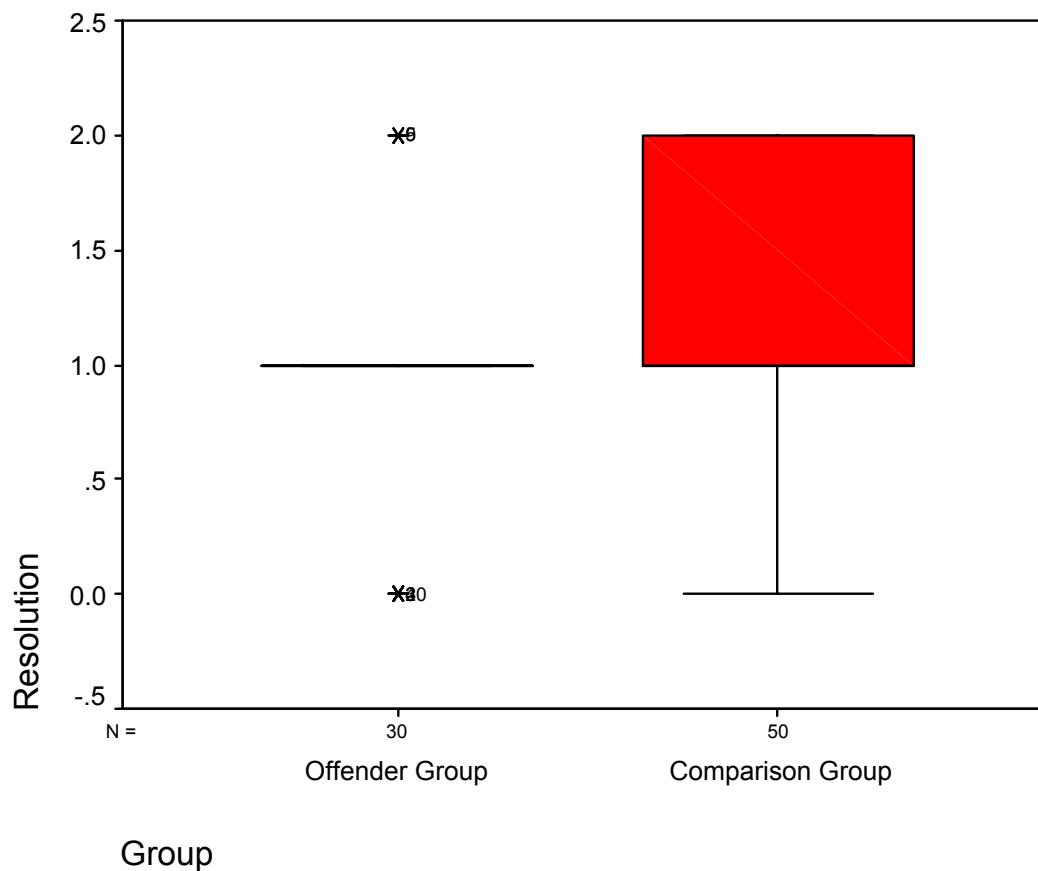


Figure 7
Box-plot for Narrative Discourse: Resolution

The box contains the 50% of cases between the 25th and 75th percentiles. The horizontal line represents the median.

$2 = 9.8$, contingency co-efficient = .332, $p = .007$

Table 7 displays the percentage speakers in each group who scored 0, 1, or 2 for this story grammar element.

Table 7

Resolution: % speakers scoring 0, 1 and 2 in both groups.

	0 (No relevant content present)	1 (Some relevant content present)	2 (Element complete)
Offender	10.3	82.3	6.9
Comparison	2	62	36

As may be seen above, there were significant group differences on three of the seven story grammar elements: the plan, the direct consequences, and the resolution. These findings indicate that the overall group difference between the offenders and the comparison group on the narrative discourse task (see Table 4) can be accounted for by the particular difficulties experienced by the young offenders with these three story grammar elements.

DISCUSSION

This study examined the language processing and production skills of a sample of 30 juvenile offenders undergoing youth supervision or youth attendance orders, and compared these with the performance of a sample of 50 typically-developing, non-offending males. As hypothesised, significant differences were found between the young offenders and a comparison group of male students attending state government secondary schools within the same metropolitan region of Melbourne as the Juvenile Justice centres attended by the young offenders. These differences were evident on all but one of the language abilities measured, and medium-to-large effect sizes were evident on each of the significant differences. This further emphasises the discrepancy between the language processing and production skills of the young offender group and those of a sample of young males who (a) were on average two years younger, and (b) had completed an average of half a year less schooling. This means that the young offenders are not simply performing more poorly than their age peers – *they are performing significantly more poorly than a typically-developing young people who are two years younger.*

These results lend support to the pilot project (Humber & Snow, 2001) strengthening the limited extant evidence about the compromised language skills of juvenile offenders, and reinforcing Davis et al.'s (1991) observation that young offenders constitute a population which is not typically identified as having language and processing and production problems. In the present investigation, the participants in the young offender group displayed difficulties on tasks requiring speed and accuracy of comprehension, the ability to “decode” abstract

language (e.g., ambiguities, metaphor), and the ability to provide narrative information in a sufficiently detailed logical and sequential manner.

The poorer performance of the offender group on the SCOLP subtests may, to some extent, be explained by reduced speed of sentence comprehension as a result of poorly developed reading abilities. This possibility is supported by research evidence suggesting that a relationship exists between poor literacy skills and juvenile offending (Putnins, 1999). Strong literacy and numeracy skills have been described as protective factors against delinquency. Along with positive self-esteem and social competence, academic success promotes resistance to delinquent behaviours such as drug abuse (Belcher & Shinitzky, 1998). It is, however, intrinsically difficult, when carrying out a study such as this, to control for both age and years of education, as these two variables covary strongly in typically developing young people, but less strongly in young offenders. It is important to note, however, that number of years of education is closely related to language and literacy competence. Thus while poor literacy skills may account to some extent for the results on the SCOLP – Speed of Comprehension task, it must be noted that literacy skills can only be developed against a background of competence in oral language skills (Paul, 1995). Oral language skills are essential to the development of literacy, because they underpin associations between sound and letter systems, and the logical representation of ideas and events via the printed, rather than the spoken word (Berko Gleason, 1993; Paul, 1995). Language problems in children and youths at risk for delinquency are probably at best recognised as poor achievement in the areas of reading and writing. The fact that none of the young offenders in this study had received intervention services aimed at their poor oral language skills lends support to this notion.

While poor literacy skills may be implicated in the SCOLP – Speed of Comprehension results, the narrative discourse task and the TLC-E subtests do not tax reading or writing skills. On the narrative discourse task, young offenders produced significantly fewer adequate story grammar elements overall than did the comparison group. Analysis of performance across each of the seven story

grammar elements indicated that young offenders were less able than the comparison group to articulate the protagonist's *plan*, the *direct consequences* of a character's actions, and way in which a *resolution* to events was achieved. It is not clear, however, to what extent the lack of content pertaining to these elements of the story reflects the young offenders' difficulty understanding/extrapolating this information from the stimulus, and/or their difficulties articulating this information. Previous research (Snow et al., 1999) has shown that the plan is the story grammar element least likely to be stated in response to this particular stimulus, however there does appear to be a relationship here with level of education, as University students more commonly stated the plan than did speakers in two clinical groups with lower levels of education in Snow et al.'s study. The important finding in the present study is that the young offenders, with an average of two years more education than the controls, still performed more poorly with respect to this element of the story. Being able to include some information about a protagonist's plan requires the ability to make extrapolations from information which is explicit, to that which is implicit. It also requires the ability to make a link between an internal response (in this case anger) and a subsequent action (going inside to sort things out). In the main, young offenders did not make this link, and tended instead to describe the pictures on a frame-by-frame basis e.g. speaker number 4 in the young offender group (verbatim):

The first, a person, a plant falls on his head while walking. In the second one, the guy is abusing the person – the house where it was like, fell from. The third one, he's walking in the door with his dog. Fourth one, he's like banging on the door with his dog next to him. The fifth one is an old lady giving the dog a bone at the door. The sixth one is the man is kissing the lady's... on the hand, and the dog running away with the bone.

This sample should be viewed alongside the following transcript of speaker number 26 in the comparison group:

OK, um, a man's walking along with his dog and a plant's fallen off somebody's balcony and hit him on the head and he's gotten angry with the person whose house it is. He, he's gone into their house to see, to talk to the person, he's really angry. He's knocking on the door with his stick. The lady comes out and gives the dog a bone, pats him, and then he gives her a kiss on the hand and the dog runs off.

While this latter narrative did not achieve a perfect score (the resolution fails to include mention of the fact that the man's attitude/feelings changed as a result of the old lady's actions), qualitatively it is quite different from the one above. It is not merely a frame-by-frame description of a series of drawings; rather it shows an attempt to link these events into a logical and coherent story. It also shows evidence of interpretation of motives (i.e., the fact that he was going inside because he was angry and wanted to let somebody know about his feelings).

The situation is similar for the inclusion of the *direct consequence* and the *resolution*. In the case of this stimulus item the direct consequence refers to the fact that the old lady came to the door and gave the dog a bone. Articulating this element is an important precursor to the story's resolution, as it is this act (kind and astute) which results in the turn-around in the old man's attitude in the final frame. The absence of this element is illustrated in the following sample (speaker number 3 in the young offender group):

He's walking along and a plant bashes him on the head. And then in the second picture, he's screaming at somebody in the air or something, screaming at something because he bashed his head. And he goes into his wife or somebody for the door. Bashes on the door, she says hello to his puppy and they kiss.

A similar lack of content and clarity around the direct consequence is evident in this sample (speaker number 14 in the young offender group):

The guy was walking along the street with his dog, and a plant got pushed off the balcony, and hit the guy on the head. So he walked in the door, knocked on it with his walking stick, saw the lady with the-, the dog, saw the lady with the bone and then the man saw the lady and kissed her hand and let the dog run away.

Given the difficulty experienced by the young offenders in articulating the direct consequences, it is not surprising that the resolution of the story was also poorly formulated. This is well illustrated in the following transcript, taken from speak number 7 in the offender group:

A pot gets chucked on an old man's head and he yells at them. The he walks through the door and starts banging on the person's door who probably threw the thing on his head. And they came out and start patting his dog and then he's all happy about it. He kisses her hand. It doesn't make sense.

This speaker has actually articulated the fact that the sequence of events depicted in the pictures “doesn’t make sense” to him. It is not surprising, then, that he does a poor job of constructing a narrative to provide an account of the events as he saw them. This of course, is exactly the task of a young offender confronted with police or legal counsel cross examination – the need to provide an account of events as he saw them, in a way which is logical and easy to understand for someone who was not present. In the circumstances under which narratives were examined in this study, speakers were not required to assume a lack of shared reference with the listener, as the examiner held, and was clearly aware of, the content of the picture stimulus. What these findings question, however, is the capacity of a young offender to adequately employ narrative discourse as a means of conveying information in a forensic interview – i.e., in a situation where shared reference is not available. In emphasising the developmental importance of the narrative genre, Hedberg and Stoel-Gammon

(1986) have observed that individuals who lack adequate story grammar skills "...will have difficulty reconstructing their own experiences and sharing them with others" (p.68). This is relevant to young offenders in two respects: firstly, communication difficulties have been found to give rise to, or be misinterpreted as, non-compliance and conduct problems in the classroom environment (Beitchman et al., 1999; Sanger & Maag, 1994). Secondly, as indicated above, a young offender with poor narrative skills is likely to be disadvantaged with respect to the information transfer demanded during police interview or a courtroom cross-examination.

The performance of the young offenders on two of the three subtests of the TLC-E confirms the findings of the pilot project (Humber & Snow, 2001) and suggests that in everyday contexts, difficulties decoding frequently used linguistic devices (such as metaphor and implicature) will greatly diminish their capacity to fully engage in conversational interactions. These findings further suggest that attempts to ameliorate social skill deficits in this population will be of limited success unless the language foundations of social competence (e.g., understanding non-literal meanings; appreciating shades of meaning) are adequately addressed.

Significant differences were evident on the ambiguous sentences and figurative language subtests of the TLC-E. Both of these tests gauge the individual's ability to understand non-literal information according to context. Although in the Pilot Project (Humber & Snow, 2001) the offender group correctly identified significantly fewer alternative meanings to phrases produced on the ambiguous sentences subtest than the comparison group, this finding was not borne out in the present study. On the figurative language subtest, participants in the offender group were more likely to interpret the figurative or metaphorical statements in their literal sense. For example, a typical response to the item "Two students are moving to a new town, one of them says, 'There is rough sailing ahead for us', what does that mean?" was provided by participant 01 *They're probably going by boat, and there's rough waves.* Similarly, on the item "A student is talking to his friend about a field trip. He says "It's still up in the air",

on which participant number 13 responded *It means he fell over and he's still in the air*. On the ambiguous sentences subtest, for the item “the boy is looking up the street”, participant number 13 responded *the boy was looking up the street for someone*, and as an alternative meaning *the boy was looking up the street for something*. On the item “I saw the girl take his picture”, participant number 25 responded *The girl took a photo camera and took a picture of a guy and somebody saw her take a picture of a guy, with the guy was a model and took a picture to be a supermodel* as the “alternative” response.

There is strong evidence that the ability to understand figurative language is related to academic success during adolescence (Nippold, 2000). These findings highlight poor abstract language skills, which in concert with slow verbal processing, are likely to severely compromise academic and social competence at school. Failure to succeed academically and socially at school is a potent combination for young people who are at risk psychosocially, as this is linked with associating with similarly non-performing peers and the affirmation of non-conforming values and behaviours (Dishion & Andrews, 1995; Snow, 2000).

There are strong grounds for hypothesising that impoverished language processing and production skills may be an important underlying factor in both poor academic performance and difficulties establishing and maintaining prosocial relationships with peers. Typically, however, language abilities are not considered beyond their implications for reading and writing, given the core importance of these skills for school success. There is little critical consideration given, however, to the importance of underlying oral language competencies for (a) the acquisition and development of competence in the written modality, and (b) the ability to learn and apply an increasingly subtle and complex set of rules pertaining to the way language is used in a range of everyday contexts. This latter skill is sometimes referred to as *pragmatic language ability*, but in other paradigms it is referred to as *social skills*. The results of the present investigation cast doubt on the efficacy of intervening at the level of social skills, if underlying language competencies are not strengthened as a foundation for the processing and production tasks required of someone who is competent in a range of social

skill domains. This has implications for the nature of interventions delivered in juvenile justice settings, and raises questions about the need to provide appropriately targeted clinical services (e.g., speech pathology interventions) for a population which is clearly performing in a clinical range on these measures. The findings also suggest that particular attention needs to be paid to young (early primary school age) children who display comorbid learning and behaviour disturbances. These are the children most likely to find that complying with a range of social contracts, as well as achieving academically are beyond their reach. Such children are at risk of early detachment from school, association with deviant peers, and engagement in antisocial behaviour, such as substance abuse and criminal activity (Snow, 2000). Enhanced early intervention efforts which focus on oral as well as written language capacity may avert some of the risk attached to this type of invisible, yet pervasive disability.

There is evidence to indicate that young people who present with compromised discourse skills are likely to have difficulty establishing and maintaining satisfying relationships with peers (Davis et al., 1991; McCord & Haynes, 1988). Typically however, these young people do not present with obvious communication breakdown at the level of ritualised social interactions, as knowledge of conversational *scripts* can be called into play in these contexts. Scripts are said to represent an individual's knowledge about everyday goal-oriented events which are so familiar that their performance is stereotyped in terms of the temporal ordering of events, main characters and setting (Abbott et al., 1985; Nelson, 1981). Such situations include social greeting rituals, and everyday exchanges between familiar and unfamiliar individuals, e.g., in service encounters. Thus reliance on script knowledge may allow many young people with significant levels of language processing and production difficulties to appear, on superficial assessment, to be functioning within normal limits. Indeed Ward-Lonergan, Liles, and Anderson (1998) have cautioned that although young people with language deficits "... may appear to be paying attention to a speaker, they often are not processing the verbal information adequately or efficiently" (p.2).

Failure to acquire a flexible social skill repertoire will result in the overuse (and inevitable misuse) of a limited range of responses across a variety of contexts. It is possible that in order to produce these limited responses, young offenders may draw on their knowledge of linguistic scripts. In the case of a young offender, this may mean over-use of monosyllabic responses, avoidance of eye-contact, shrugging of the shoulders, and over-use of vague fillers such as “maybe”, “dunno”, and “yeh, sometimes”. It may be that rudimentary knowledge of scripts on the part of young offenders allows them “get by” in situations which actually demand a more sophisticated (but unavailable) linguistic repertoire. If this is the case, the perception of social/communicative uncooperativeness will be exacerbated, and greater social cost will accrue from the interaction than may be warranted.

Because language/discourse difficulties often occur in the presence of other learning and/or cognitive/executive function disturbances, affected young people have fewer opportunities for incidental learning of advanced social skills, requiring instead deliberate and explicit opportunities for repeated practice before mastery of skills occurs. Such consolidation then needs to be followed by strategic efforts at generalisation and maintenance of new social/interactional skills. In the absence of such strategic and sustained efforts, these young people are at risk for alienation from otherwise positive peer and adult influences. In stressing the link between these language processing and production difficulties and executive/cognitive functions in at-risk young people, Najam et al. (1997) have observed that “...language deficits comprise a feature of a core deficit in executive self-regulation in high-risk children that is expressed behaviorally as impulsivity, attention deficit and conduct/behaviour problems” (p.78).

The present findings suggest that greater attention should be paid to the language processing and production skills of young offenders. Language is the means by which humans receive and interpret large volumes of complex, sometimes unpredictable information – information which must be dealt with in a matter of milliseconds. It is also the mechanism by which thoughts, ideas, perceptions and experiences are encoded and shared with others. If oral language

skills are sub-optimal, the young person needs to find other, potentially less socially acceptable ways of communicating with others. The types of deficits uncovered by the present study represent invisible, yet pervasive everyday handicaps.

Limitations

The present study included only males and for practical reasons employed non-random sampling, with unequal numbers in both groups. These factors need to be borne in mind when interpreting the findings, but should not significantly lessen the integrity, nor the external validity of the results.

Whilst strong group differences were found on nearly all tasks, it is important to note that not *all* young offenders performed more poorly than the comparison group. Future studies will need to consider comorbidity with factors such as attentional disorders and substance misuse, so that profiles of more or less at-risk youths can be identified with respect to language functioning. In the present investigation, participants with known intellectual disability were not included, however IQ and performance on the language measures employed are likely to be correlated, and this could be considered by future workers. It will be important, however, to maintain an emphasis on the language sub-skills found difficult by this population, so that these are not “explained away” as artefact of low IQ. This will be most important for early intervention efforts with primary school children who display both learning and behaviour difficulties.

While this study provides strong evidence of an *association* between poor oral language skills and juvenile offending, no *causal* inferences can be drawn about this association. This is because the study was cross-sectional in design. It is therefore, not possible to conclude that poor oral language skills “lead to” early engagement in antisocial behaviour, any more than it could reasonably be concluded that early engagement in antisocial behaviour “leads to” poor oral language skills. In all likelihood, there is a myriad of complex underlying psychosocial factors that result in an elevated risk of both outcomes. The current findings support the hypothesis that there is a clinically significant link between

juvenile offending on the one hand, and risk for oral language impairments on the other. Questions regarding cause-effect relationships will need to be examined via longitudinal tracking of young children who present with comorbid learning and behaviour problems – in order to determine whether school based learning (i.e. reading and writing) problems are actually markers for poor underlying oral language skills. Such an investigation would form an appropriate back-drop to a study looking at the efficacy of early intervention efforts aimed at reducing the likelihood of a young person “graduating” from poor academic performance to engagement in antisocial, possibly criminal behaviour.

It was not possible in this study, to determine the extent to which past and/or present substance use is associated with the risk for oral language impairment in young offenders. According to an Australian study conducted by Howard and Zibert (1990), young people who find themselves in contact with the Juvenile Justice system typically begin using licit drugs at around age 11, and commence using illicit drugs at age 13-14. It must be considered, therefore, that licit and/or illicit drug use is an important confounder in any study of high-risk youth.

Conclusions and Recommendations

It needs to be emphasised that the young offenders in this study were an average of two years older than the comparison group, yet they still performed significantly more poorly than the controls on nearly every measure employed. This addresses the ecological validity (i.e., “real world importance”) of the findings and adds the weight of clinical significance to the statistical significance evident on these measures.

The findings reported here suggest that young people who display early disengagement from school and involvement in delinquent activities need to be studied more vigorously with respect to their oral language competence. This population is a challenging one for teachers, clinicians, researchers, police, welfare and juvenile justice staff, and policy makers. Gaining a better understanding of their language capacities may yield a number of benefits for

early intervention with those children with comorbid learning and conduct disorders. Evidence derived from this line of enquiry should also inform forensic interview and cross-examination procedures, to reduce the disadvantage attached to invisible yet pervasive handicaps associated with language disability. Finally, the findings can be used to enhance the way in which interventions for young offenders are delivered, by identifying strategies staff can use to maximise communicative success with these young people. Future research should explore the relationship between oral language abilities and social skill deficits in young offenders, so that the contribution of the former to the latter can be assessed. This will provide a clearer understanding of this complex, high-risk population, as well as suggesting hypotheses which can be tested with respect to intervention efforts for those young people who have already entered the juvenile justice system. It must be remembered that overwhelmingly, the auditory-verbal channel is relied upon as the means by which counselling (1:1 and group) is provided. Because such counselling is typically aimed at attitudinal factors likely to reduce risk for recidivism, it necessarily deals with abstract concepts such as values and consequences. The present findings suggest that young offenders would have considerable difficulty engaging meaningfully at this level of interaction. Further research will be required to examine the types of linguistic demands placed on young people in these interactions, so that service delivery approaches can be explicitly modified in the light of the present findings.

Young offenders have not traditionally been considered high risk with respect to oral language capacities, and this lack of awareness is likely to have been to their detriment, in both the education and juvenile justice systems. It is hoped that the present findings can go some way towards redressing this gap in the wider understanding of the disadvantage suffered by this resource-intensive and challenging high-risk group of young people.

Appendix 1: Flowerpot Incident cartoon stimulus.

Appendix 2 Narrative Discourse Scoring Key

Each of the seven story grammar elements was scored on a three-point scale, where 0 = no relevant content present; 1 = some relevant content present, and 2 = element complete. Criteria for a score of 2 for each element are summarised below:

Setting

There is a man walking along the street with his dog.

Examples of utterances which scored 1:

A man walked past an apartment (No mention of dog)

He's walking along with his dog (No referent for the pronouns "he" and "his")

Initiating Event

A potplant / vase falls from the balcony (above) and hits him on the head

Examples of utterances which scored 1:

The pot falls on his head

A flowerpot fell on an old man's head

Internal Response

The man becomes very angry about this

Examples of utterances which scored 1:

He's yelling at whoever lives there

He complains

Plan

(So) he decides to go in and sort it out (Words which express an intention as a result of what happened)

Examples of utterances which scored 1:

He goes upstairs to complain

He goes inside to sort them out

Attempt

He goes into the building / up the stairs and bangs on the door (Must express both the action of going into the building or up the stairs AND banging on the door)

Examples of utterances which scored 1:

He's slamming on the door
He goes into the building

Direct Consequences

A lady comes to the door and gives the dog a bone

Examples of utterances which scored 1:

The lady comes out, pats the dog
He sees an old lady who's nice to his dog

Resolution

The man is not angry anymore / Instead of yelling at her, they became friends / he decided he liked her (i.e., words which express a change in emotion/feelings on the part of the man, in spite of what has happened)

Examples of utterances which scored 1:

He kisses her hand and says thank you
The man's happy with her

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