

***Of Mice and Men*: issues for students on the autism spectrum when studying GCSE English Literature**

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Editorial comment

Many students with autism will take tests and exams in a variety of subjects during their educational career. The questions asked are often in written form and have the potential to confuse and mislead these students. There is a particular challenge when studying English Literature as the texts studied are often full of language that has several meanings and is highly dependent on context. Reading well is not solely related to the words written on the page but to their context and authors may also use idioms, metaphors, similes and dialect words – which need to be interpreted correctly for the meaning to be correctly understood. In this paper, Cary Canavan, analyses the text of the novel *Of Mice and Men* to identify the aspects which might cause problems for students with autism. She argues that many are likely to under-achieve in English exams as they misinterpret the questions and text. She suggests that assessment of their language comprehension skills is undertaken in primary schools and then they are taught the skills necessary to read for meaning.

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Introduction

Many students on the autism spectrum will take tests and exams in English literature. Currently, over 90 per cent of schools study *Of Mice and Men* for GCSE English Literature (EdExcel, AQA, OCR and WJEC Examination Reports, 2011). Analysing texts such as this can be problematic for many of these students (Church, Alisanski and Amanullah, 2000). While supporting students with autism, I felt there were many issues that were not being addressed by mainstream teachers and by the examiners writing the questions. The reasons for this may be that:

- teachers are unaware of the cognitive challenges faced by these students arising from their neurophysiological differences
- most teaching assistants (TAs) supporting these students are not subject experts and have little or no knowledge of educational theory or autism
- many students with autism have no extra support

but rely on the class teacher to differentiate for their learning style

- examination accommodations for students with autism are generic and do not recognise the particular language problems associated with autism
- GCSE examination boards do not understand the linguistic challenges that texts pose for many candidates with autism.

Autism and reading comprehension

Students on the autism spectrum often have good reading accuracy scores but much poorer scores for reading comprehension. They may take both spoken language and written language literally and can be blind to the context of the story, picture or event and so interpret these differently (Vermeulen, 2012). A student with autism might find the communication between characters in a story confusing when information is

omitted. The writer assumes that the reader or listener can fill in the missing pieces and understand intent. Many students with autism are thought to have weak central coherence (WCC), that is they focus on the details rather than on the gist of the story), Some may lack theory of mind (ToM) which affects their ability to imagine another person's thoughts and feelings in order to make sense of their actions and to predict what they may do next. Some students will have problems in executive functioning, as seen in their inability to plan, organise, stay on task or shift attention and multi-task) (Baron-Cohen, 2008). If this is the case, then this will have a considerable influence on their ability to process the text of a story or novel effectively – particularly works of fiction rather than fact.

Neurophysiological research on individuals with autism, using functional magnetic resonance imaging (fMRI), has revealed structural and processing differences in brain regions involved in language processing; higher level, language comprehension; creative aspects of language; resolution of semantic ambiguity found in the use of idiomatic language and metaphor comprehension; interpretation of jokes; tracing themes; sorting event sequences in narratives; drawing inference; detecting inconsistencies in stories and repairing grammatical errors (Beeman and Bowden, 2000; Tager-Flusberg and Joseph, 2003; Jung-Beeman, 2005; Mashal et al, 2008). It is also suggested that the difficulties students with autism might have in studying novels is also compounded by their poor working memory (Virtue, Parrish and Jung-Beeman, 2008).

Similes and metaphors

Similes that directly compare two objects using cue words such as 'like' or 'as' are easily identified and more easily understood than metaphors. Norbury (2005) maintains that a high level of semantic skill and world knowledge is needed to recognise a metaphor and to process it to a satisfactory conclusion through analogical reasoning skills. She cited Gernsbacher and Robertson (1999) who suggested the reader must also suppress knowledge of an object that is not relevant to the analogy. So, the intended analogy in 'lawyers are sharks' is that they are aggressive and ferocious, not that they have fins and sharp teeth.

Norbury (2004) writes that some metaphors are easier to understand than others – so 'skating on thin ice' is

easier than 'to kick the bucket'. Despite these potential difficulties in comprehension, students with autism can improve their skills with training and experience (Norbury, 2004; Nation and Norbury, 2005; Huemer and Mann, 2010; Le Sourn-Bissaoui et al, 2011).

Analysis of the text *Of Mice and Men*

Of Mice and Men (Steinbeck/OUP, 1965) has 113 pages. In total, I found 586 areas of potential difficulty for a student on the autism spectrum, under the headings listed in *Table 1*. This did not include problems with homonyms, double negatives, misspellings and grammatical 'errors'.

Table 1: Type and number of potential difficulties in *Of Mice and Men* for a student on the autism spectrum

Type	Number
Place (geographical context)	11
Ambiguity	155
Metaphor	134
Simile	23
Time (historical context)	94
Idiom	169
Total	586

The title of the novel

The title often gives important information to the reader (Wahlberg and Magliano, 2004), but on its own can be very misleading. For example:

*'The best laid schemes o' mice an' men,
Gang aft agley,
An' lea'e us nought but grief an' pain,
For promis'd joy!'*

To a Mouse by Robert Burns (1785)

So, the student with autism may be confused from the outset, inferring that the story is literally about mice and men and not the futility of planning and having grand dreams for the future, the novel's main theme. The opening chapter appears to confirm the former, as George tells Lennie to get rid of the dead mouse in his pocket.

Geographical and historical context of the novel

The Examination Boards' specifications require candidates to:

'Relate texts to their social, cultural and historical contexts; explain how texts have been influential and significant to self and other readers in different contexts and at different times.' (A04 OCR, (2009); WJEC, (2010); AQA, (2009); and EdExcel (2009)).

Bogdashina (2010), citing Brown (1958), comments that our understanding of the meaning of a word is related to our experiences and the context of its use in our culture. The meanings of words may differ in a common language when used by a different culture with different experiences and attitudes. *Of Mice and Men*, set in 1930's California during the Great Depression, was written in American/English. The story focuses on two migrant workers and the ranch forms a microcosm of American culture at a stratum of society affected by the Great Depression. Difficulties with flexible thinking will have a significant impact on the ability of the student with autism to understand the geographical and historical context of the novel and how the characters' experiences are relative to time and place. This also affects understanding of the language used; its relevance to the characters and vice versa (Kaland et al, 2005).

Students in school are typically given presentations about this period in American history with significant events (eg, Wall Street Crash, 1929) and shown contemporary photographs of migrant workers. Then they read the novel aloud in lessons and finally watch Sinise's film (1992) before starting examination preparation studying plot, character, themes and context. Direct reference to geographical and historical contexts could lead to the novel being taken as a factual account.

The story has several references to real places in California: Gabilan mountains, Weed, Salinas, Soledad and the American River. I use maps to illustrate the novel's geographical and historical context and highlight the seriousness of the incident, between Lennie and the girl in Weed. George outlines the historical context in Chapter 1, summarising the life of migrant workers in California but without historical reference students with autism may not be able to relate George's description to historical events. Or conversely, their world knowledge of the Great

Depression (one of my students also did GCSE History) can be a distraction due to problems with exception handling (Tesink et al, 2011). Good detail focused processing should make the appreciation of context an easier task for the students with autism. However, they often have to be directed to look beyond the concrete things belonging to the ranch hands to leisure activities, for example, the lack of wives and children and what might be inferred from their visits to a brothel.

Social context and characterisation

Subtle references to character like the boss and Curley (his son) wearing high-heeled boots compared with Slim, who doesn't need to wear high-heeled boots to reflect his authority, can be completely missed. Steinbeck's description of Slim was a list of skills that needed explaining due to a lack of world knowledge. His physical description is confused by the use of the metaphor, 'hatchet face' and the simile describing hands, which moved 'as delicately as a temple dancer's'. The student with autism may have problems creating a character study, which involves inference, as in the description of Slim's moral authority, which need references to evidence at various points in the text, due to a poor working memory (Virtue, Parrish and Jung-Beeman, 2008).

Key passages are popular examination extracts. The following questions relate to Curley's first encounter with George and Lennie (p 22):

'How does Steinbeck's writing make this such a powerful and revealing moment in the novel?' (OCR Higher paper, 2012)

'What makes this such a powerful and revealing moment in the novel? You should consider:

- *the way Curley talks and his body language*
- *the reactions of George and Lennie*
- *some of the words and phrases Steinbeck uses.'* (OCR Foundation paper, 2012)

Key passages in the story need to be explained in depth to students with autism. A lack of ToM means that they may not be able to appreciate Curley's pugnacious attitude and the other characters' response to it. Each gesture may need to be explained to make sense of

the question. The question is deceptively simple, as the candidate should discuss the scene it foreshadows as well as the characters involved. The abstract words in the question are also not helpful.

Similarly, an AQA paper (2012) required candidates to discuss Curley's wife and to comment generally on attitudes towards women in the novel. The student with autism may not appreciate Curley's wife's low status from the language and imagery associated with her: derogatory epithets uttered by the ranch hands: 'tart', 'girl', 'poison', 'good lookin'', 'jail bait', 'bitch', 'tramp', 'rat-trap' and 'looloo', and Slim's contradictory address of 'good lookin''. The obvious symbolism of her wearing the colour red for danger may be accessible because it is a universal symbol but as a prostitute, this may be missed. Each will have to be explained to the student with autism. The other female characters' relevance, illustrating life for women in those times, may be largely overlooked because they have no physical presence. If the question omits an instruction to discuss them, they are likely to be totally ignored. All the focus will be on Curley's wife due to a rigid interpretation of the question.

Students with autism are unlikely to be able to infer an experience of life for Crooks in 1930s' California from the actions of other characters and will not recognise the significance of the use of the word 'nigger'. The contrast between Crooks' youth and his current status may be completely overlooked. Students with autism have thought he was being discriminated against because he was disabled and could not do his job properly. Crooks' reactions in the historical context are likely to be overlooked altogether, so alien is his experience. Sinise's film (1992) supports the teaching of the text, illustrating the context and facilitating understanding of the characters and their situations. Watching the film was probably the main way my students with Asperger Syndrome (AS) made sense of the story because it gave them a visual experience of the novel's context.

Themes in the novel

Abstract concepts comprising the themes of the novel: loneliness and the American dream, with sub-themes of discrimination and poverty, can be areas of particular difficulty for someone with autism. Loneliness may be seen as a contradiction because, interpreted literally, it suggests isolation, while George and Lennie are travelling together and the other characters live and

work together on the ranch. Loneliness as a state of mind is not inferred from the condition of the characters. However, if directly taught and instructed, the student with autism can describe how each relevant character experiences loneliness with evidence and deliver a good examination response.

The American dream may be taken literally as a dream one has when sleeping in America. The student has to be able to appreciate the conditions and aspirations of the characters in historical context and not be distracted by the Declaration of Independence and ambitions of settlers moving west to find their American dream. A lack of awareness of the individual propensities of the students with AS can, potentially lead to idiosyncratic responses to examination questions and a failure to achieve a grade commensurate with their ability.

Difficulties with dialogue and grammar

Fifty-nine per cent of the text is direct speech written in dialect (see *Figure 1*).

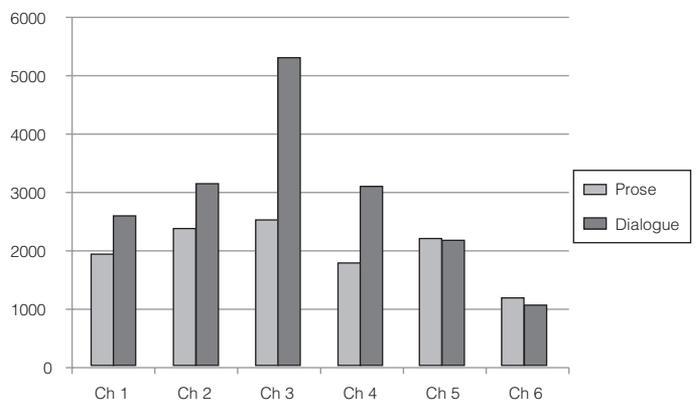


Figure 1: Proportion of dialogue to prose in each chapter in *Of Mice and Men*

The speech of Steinbeck's characters faithfully reproduces the 1930's (which is) Salinas Valley dialect. For students with autism who understand the rules and structure of English grammar, however, it is an anathema. Steinbeck misspells words in a phonetic representation of his characters' speech (eg 'set' (sit), 'tenement' (tournament) and 'pitchers' (pictures)), which confusingly exist with different meanings in English. There are multiple contractions used to reproduce the sounds: goin' and takin', gonna and outta; an' and ever'body.

There are 220 double negatives in the novel, for example: 'I never had none', 'I ain't got nothin' to do' and 'I ain't gonna say nothin' (see Figure 2).

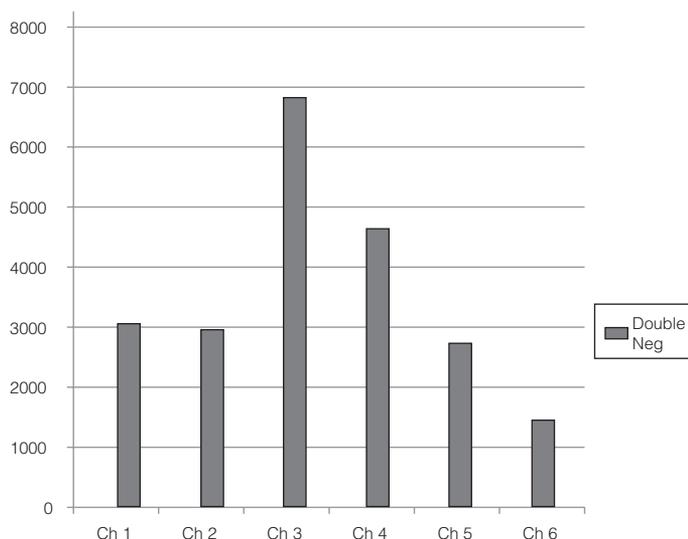


Figure 2: Number of double negatives in *Of Mice and Men*

The tendency for students with autism to focus on details (Happé and Frith, 2006) and a rigid interpretation of rules of grammar may render the text incomprehensible to them. One of my students informed me that Steinbeck was a bad writer because, 'He can't spell or write grammatically.'

Dialogue and idiomatic language

Some of the characters' vocabulary would not be recognised by a 21st century English reader (eg, hoosegow (prison) and goo goo (government reformer)). The meaning of 'hoosegow' cannot be derived from the context of the sentence:

'These here jail baits is just set on the trigger of the hoosegow.' (*Of Mice and Men*, p 59)

Curley's wife and similar women are on the verge of causing so much trouble; one may end up in prison for just being around them. For these connections to be made, a very sophisticated level of linguistic processing and knowledge of 1930's American idiom is required.

The student with autism may interpret a cat house (brothel) as literally a house full of cats. While translating blanket roll into a rolled up blanket may not present too many difficulties, especially if illustrated with a photograph translating bindle into bundle may not be so

obvious to them. I was asked, 'If he meant bundle, why didn't he write bundle?' The photograph in this instance was of no use to my reasoning (see Figure 3). Idiom has to be recognised and understood to make any sense (Norbury, 2004).



Figure 3: Bindle stiff

The meaning of some of Steinbeck's vocabulary, now lost from common usage, (eg, yammering (whining) and skittering (skimming across the surface)) may be derived from the context of the sentences, associating the coyote to the sound of yammering and a lizard running across the dry leaves. However, this requires close reading of the text.

There are numerous idioms, where the meaning of an expression cannot be guessed at from the meanings of the individual words which form it: (eg, 'bustin' a gut'; 'poundin' their tail'; and 'blowin' in our jack', 'you keep me in hot water all the time'). This makes navigating the novel's semantics a bewildering ordeal for the student with autism trying to achieve basic comprehension.

Figures of speech, ambiguity and literal interpretation

This novel is full of baffling imagery and ambiguity for the literal interpreter.

Taking 'Rabbits come out of the brush ...' (*Of Mice and Men*, Steinbeck, p 1) a typical student will translate brush into bush but these words conjure up a completely different image for the student with autism who may find it difficult to suppress a meaningless interpretation (Mashal and Kasirer, 2012) (see *Figure 4*).

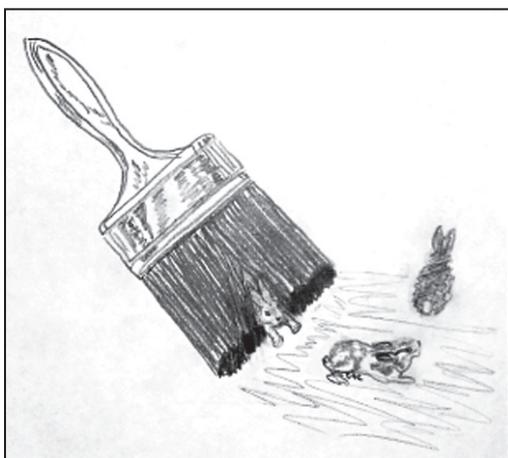


Figure 4: Rabbits coming out of the brush, as described to me by a student with Asperger Syndrome

Imagery may cause confusion unless each instance of use is explained.

'S'pose Curley jumps a big guy an' licks him.' (*Of Mice and Men*, p 27)

Curley was assumed to be a dog by one of my students, until a typical student told him the meaning of 'lick'! Some similes are very complex, for example:

'...They'll tie ya up with a collar, like a dog.' (*Of Mice and Men*, p 76)

Implying the disabled were treated no better than animals, it also refers to the extended metaphor of Candy's dog, which was shot because it was old and smelly. Appreciating this analogy requires the ability to refer back to a previous event, with which the only connection to this event is the word 'dog', and forward to the final scene in the novel where Lennie is shot.

Consider this image created in the mind of someone who interprets language literally:

'She wore a cotton house dress and red mules with ostrich feathers ...' (*Of Mice and Men*, p 32)

Homonyms

Steinbeck frequently uses homonyms close together in the text. On pages 60-61, the word 'can' is used six times with three different meanings. When homonyms are used like this the student with autism is likely to struggle to gain the meaning of the text.

Table 2: Breakdown of homonyms

Homonyms	Number	Meanings			
stake	15	investment in person	investment in place	post	
can	100	to be able in various tenses	to be dismissed from a job	preserve fruit	job dismissal
shot	13	move at speed	a shot from a gun	a drink measure	in shotgun
shoot	18	to fire a gun	play pool		
jerk	9	a sudden movement	mule driver		
buck	38	to throw onto a truck	mule driver		
magazine	8	a periodical	part of a gun		
rabbits	73	animal	lice	to talk a lot	
mules	6	animal	shoes		

Concluding comments

With large numbers of students being educated in mainstream education, schools need to assess the language skills of all students with autism appropriately. If not, their specific difficulties are likely to be missed. The communication assessment record (CAR) by Silver (2005) is a comprehensive assessment tool, which could be adapted for this purpose. This should be started in primary school, reviewed and updated throughout the student's education. A detailed record of this kind would enable educators to target the specific areas of learning difficulties and enhance the ability of the student to achieve academic success in mainstream education.

Teachers and TAs should also be trained in the language comprehension problems associated with autism and employ strategies to teach these students effectively, paying attention to skills which affect their examination performance. Study and revision texts which give detailed annotation such as those used to teach Shakespeare's plays and graphic novels might be particularly helpful to students with autism. Finally, examination boards need to review the wording of their questions and consider an alternative version for some students couched in less abstract terms. At the moment, I have an uneasy feeling that until mainstream educators address these issues, a large section of the student population is being inadvertently discriminated against.

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