

# AUTISM AND THE IMAGINATIVE MIND

The British Academy publication *Imaginative Minds* offers an engaging and innovative take on the elusive and special human capacity of imagination. The editor, **Dr Ilona Roth**, has a particular interest in the complex relationship between autism and imagination. People on the autistic spectrum typically have difficulty in imagining what other people are thinking and feeling, and in understanding and generating narrative, and this would seem to constrain their scope for creative forms of imagination. Yet some individuals with autism display remarkable gifts in fields such as music, art and poetry. In this edited extract Dr Roth offers insights from her research into autistic spectrum poetry.

OF ALL THE MEDIA in which autistic talent might manifest itself, poetry is the most surprising. Poetry appears, par excellence, an intensely abstract, symbolic, and free-flowing form of linguistic expression. To write poetry without creative imagination or the capacity to express insight into the human condition would seem something of an oxymoron – both appear quintessential tools of the poet's trade. Yet, it might be argued that poetry writing can be approached purely as a language system, governed by systematic rules acquired in much the same way as the rules for solving quadratic equations. 'Systemizing' has been proposed by Simon Baron-Cohen as the thinking style favoured by people on the autism spectrum. Would it be in principle possible to write poetry in this way?

We can conceive of poetry replete with formal poetic devices such as rhyme and rhythm, but devoid of the figurative and expressive qualities that we normally associate with poetry. Works written in this way would most likely appear minimal, mechanical, and unaccomplished – examples of the craft without the art. One recent definition of the distinctive qualities of poetry emphasizes the rich texturing and complex juxtaposing of words we associate with poetry in its fullest sense:

'Words for poets have meanings, appropriate uses, associations, connotations, etymologies, histories of use and misuse. They conjure up images, feelings, shadowy depths and glinting surfaces. Their properties are marvellous, endless, not to be guessed at from casual inspection. And each property – meaning, association, weight, colour, duration, shape, texture – changes as words are combined in phrases, rhythms, lines, stanzas and completed poems.' (C. J. Holcombe, at [www.poetrymagic.co.uk](http://www.poetrymagic.co.uk))

A key aim of my research was to explore whether autistic poetry transcends the minimal level, whether it captures Holcombe's 'images, feelings, shadowy depths and glinting surfaces' to the same extent as poetry written by typically functioning individuals (hereafter referred to as 'non-autistic' or 'neurotypical'), and whether it has distinctive qualities of its own. The research summarized here employed the technique of linguistic content analysis in an evaluation of autistic poetry and comparison with the works of a range of neurotypical poets. The poets also completed a questionnaire exploring their reflections about formative influences, and the motivations for and goals of their work.

## Autistic and Neurotypical Poetry Compared

To date, work by five published autistic spectrum poets has been analysed, each sample being compared with a selection of work by several neurotypical poets, matched in terms of gender, age, and educational level. The autism spectrum poets whose work we have studied include two males, aged 11 and 20, and females, aged 24, 41, and 53 with diagnoses of autism or Asperger syndrome.

The basis for the analysis was a set of coding categories and definitions, which were

refined until they could be reliably and consistently employed by coders working independently of one another. Some 190 autistic poems (4008 lines) and 190 non-autistic poems (3904 lines) were randomly sampled and coded for both 'whole poem' and 'line-by-line' features. Table 1 shows a summary of the poetic features coded using this system. The frequency counts for each coded feature were statistically analysed.

Overall, the autistic poetry shared many of the characteristics of non-autistic poetry, and appeared not as a minimal interpretation of the craft, but as an exploration of its stylistic, imaginative, and expressive possibilities. While each poet had different stylistic emphases, there was flexibility in their deployment of styles across poems, and variation among poets. Much of the poetry was in free verse form; relatively little consisted of the equal-length stanzas or rhyming couplets predicted by a rule-following or systemizing approach to poetry.

## Imaginative Devices

This analysis treats figurative words and phrases as an index of imagination. Themes of the poetry were also considered. The present results were arresting in two respects. Firstly, as a group the autistic poets made substantial use of metaphor – as much overall

Table 1: *Examples of features coded by content analysis*

Coding Category	Examples of features coded
Global features	Theme of poem Poet's 'voice' – autobiographical, biographical Literary devices – rhyme, rhythm, refrain
Literary devices	Alliteration/assonance
Imaginative devices	Complex figurative language; metaphor; simile
'Self-aware' language	Reflections on own mental states and self-concept
'Other-aware' language	Reflections on another's thoughts, concept of other
Non-specific mentalist language	Mental state references not specifically attributed

as the non-autistic poets – although the five varied in how much they employed, in keeping with their individual stylistic preferences. Secondly, all used simile to a much lesser extent than metaphor, though simile was also relatively rare in the neurotypical poetry. Previous findings by Francesca Happé suggest that simile is more accessible than metaphor to people with ASD, while understanding irony is especially difficult. The possibility that somewhat different skills are involved in understanding figurative language (the task in Happé's study) and in spontaneously generating it within poetry requires further research.

In terms of imaginative characteristics and scope, the autistic poetry had some distinctive features. Fantasy was infrequent among the themes of this poetry, though it also included works with a surreal quality:

Standing on the edge of black inspiration  
night,  
Lure of Strawberry Fields for ever,  
Backed up in a duel,  
Against a knight of the night in shining  
armour  
Life behind glass, a living death made  
tolerable  
Pure fear of the one touching touch  
which could shatter the glass forever  
And send the tightrope walker  
plummeting from her tightrope,  
Into the knowing of the unknown

From 'Becoming Three-dimensional'  
by Donna Williams (2004) in her book  
*Not Just Anything: A Collection of Thoughts  
on Paper*, published by Jessica Kingsley,  
© Donna Williams.

A statistical analysis of metaphor sub-types showed that the autistic poets provided fewer 'exceptionally creative' metaphors, defined for the purposes of coding as images related in a way that was both original and penetrable. More of their metaphors were either moderately creative or idiomatic figures of speech, such as 'bright new worlds' or 'pompous talking heads'. However, one of these poets also produced more 'idiosyncratic metaphors', in which the relationship between the metaphorical expression and

that which it represents was not entirely clear. Such metaphors are difficult to understand, but are also highly original.

Humour was not formally coded in this study, because of the difficulty of agreeing an operational definition for use in objective coding. A different evaluation is under way to explore humorous qualities. Neither the autistic nor the non-autistic poetry gave a markedly humorous impression, though lines such as Donna Williams' 'Some people are stormy weather' surely have an ironic humorous appeal.

If figurative language use is a legitimate index, these results do demonstrate the capacity for creative imagination among autistic poets. The differential use of metaphor sub-types by the autistic and non-autistic poets suggests some qualitative or quantitative contrasts which merit further investigation. Of course, the creative impact of a poem is not purely, or even principally, a function of its use of metaphor: a poem may be replete with metaphors that do not evoke an imaginative response. The systematic methodology used here to analyse metaphors and their sub-types also took into account the meaningful context of each individual poem. However, the method is necessarily limited in the scope it offers to embrace the poet's metaphorical intentions. Further studies addressing these complex questions are in progress.

These findings once again seem at odds with the predictions of the systemizing approach. While the ability to use literary devices such as rhyme and rhythm lends itself to a systemizing strategy informed by a set of rules, it is hard to see how a grasp of subtle ambiguities of language required to write metaphorically could be acquired or implemented in this way. Given the explanatory value of the systemizing approach in explaining other aspects of autism, this merits further investigation.

### *Poetic Perspectives*

The most strikingly distinctive feature of the autistic work was the pronounced focus on the self. The themes chosen by autistic poets mostly concerned the self or relationships between the self and others, while the non-autistic poets also wrote often about

philosophical, political, or fantastical topics, as well as about nature, places, or events. The autistic spectrum poets also wrote predominantly from their own 'voice' – that is, speaking about themselves, from their own perspective. When not writing in this way, they preferred the descriptive, non-perspectival voice appropriate to commenting on places or events. They rarely wrote from the perspective of another. In contrast, while the non-autistic poets also wrote often from their own 'voice', they quite frequently took another's perspective as well as adopting the non-perspectival voice.

### *The Language of 'Self' and 'Other'*

This analysis yielded results echoing those for perspectives. Overall, the autistic poets referred substantially more often to their own thoughts, sensations, emotions, and desires than to the corresponding mental states of others. This self-referential language was significantly more frequent than for non-autistic poets, who showed a more even balance between self- and other-related language.

This finding is of particular interest. Recent work by Marco Iacoboni, among others, proposes that 'self' and 'other' are co-constituted in autism, such that autistic individuals who lack theory of other minds will also lack self-awareness. Assuming that the poets' use of mental state language serves as one index of their mental state awareness, the present pattern suggests, by contrast, that their capacity for self-reflection may be selectively preserved or enhanced.

The wider rationale for exploring mental state language in this study was that a capacity to express ideas about the 'the human condition' is one of the attributes to be expected of poetry that transcends the minimal level. The autistic poetry in this study meets this requirement, but does so predominantly through the poet's inward-directed reflections on the self.

### *Poets' Reflections on Their Work*

Although the questionnaire data gathered alongside this analysis present a mixed picture, some of the poets' reflections do echo the rather solipsistic character of the autistic poetry described here. Two adult autistic

poets who reflected most eloquently upon the questions posed, described the formative influences upon their work as intensely personal. While neurotypical poets emphasized the role of a parent, teacher, or school in engendering their interest, these two described their poetic skill as arising unconsciously and instinctively from their interest in words. Similarly, while the source of inspiration for many neurotypical poets included childhood experiences, observations on the world, and so on, one autistic poet described her inspiration as 'From ME. My thoughts. My experiences'. There were differences, too, in the extent of acknowledged interest in the works of other poets.

Here perhaps in this personal focus is a clue to the particular character, constraints, and potential of autistic creativity. There is relatively less poetry in which the poet projects into an alternative perspective, or into a world outside his or her own

experience, yet a particularly powerful evocation of the private world(s) of the poet. The projective or perspectival character of the poetic work therefore permeates and shapes its creative character such that these two major forms of imagination seem integral, not independent as some researchers have proposed.

Popular views about the mental world of the person with autism may range from thinking that he or she does not really have an inner life, but lives entirely in the 'here and now', to the assumption that individuals with autism are all eccentric geniuses. This research has addressed the elusive dimension of thought at the heart of these contrasting views – the imagination – and has aimed to dispel some myths and contribute some insights through an appraisal of autistic skills and capabilities in this area. While exceptional accomplishments are comparatively rare among people on the autism

spectrum, their possible implications for theory should not be discounted since problems with imagination are integral to the definition of autism regardless of ability level. The outcome of the present work is far from a definitive conclusion about imagination in autism, but rather a demonstration of the complex questions that must be addressed, concerning both autism and the imagination itself.

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In September 2008, the British Academy is co-sponsoring a conference with the Royal Society on 'Autism and Talent'.

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## Autistic Visual Art

*St Paul's and St Andrew's Methodist Church and the Migraine Type Lightning and the Elves*, by Jessica Park

Jessica Park's work frequently features faithful representations of everyday objects and buildings. Yet she executes her work in an arresting 'pop-art' palette of colours, with some highly imaginative additions. In Jessica's account of this painting, the 'glowing doughnuts all over the sky are elves', while the 'zigzagging objects are lightning. They look white but they are three different pastels ... I see them when I have migraine'. The transformation of everyday objects rendered quasi-photographically, by the use of 'non-real' colour is reminiscent of the work of Andy Warhol, hailed by many as a creative genius. Ironically, Andy Warhol is also considered by some to have shown strongly autistic features.

