Autism Policy and Practice: The Open Access Autism Journal

Publication details, including instructions to authors are available at: http://www.openaccessautism.org/

Examining intellectual ability, not social prowess: removing barriers from the doctoral viva for autistic candidates

© Nick Chown, Independent scholar, Barcelona, Spain, Luke Beardon, Sheffield Hallam University, UK; Nicki Martin, London South Bank University, UK; Sandra Ellis, Independent scholar, UK

Available online: 9 July 2015

This article should be cited as follows:

Chown, N., Beardon, L., Martin, N., and Ellis, S. (2015). Examining intellectual ability, not social prowess: removing barriers from the doctoral viva for autistic candidates, *Autism Policy & Practice*, 2, 1-14

This article is made available on an open access basis whereby no charge is made for it. The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The publisher and editors do not necessarily agree with any of the views expressed in this article. The publisher shall not be liable for any loss, actions, claims, proceedings, demand, or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.



This work is licensed under a Creative Commons Attribution License [version 4.0].

2015, 2, 1-14 ISSN 2056-8932 / DOI TBA

Examining intellectual ability, not social prowess: removing barriers from the doctoral viva for autistic candidates

N. Chown^{a#}, L. Beardon^b, N. Martin^c, S. Ellis^a ^aIndependent scholar; ^bSheffield Hallam University, ^cLondon South Bank University

Abstract

The doctoral viva voce ('viva') has been variously described in the literature as mysterious, unpredictable and potentially frightening for students. Here we present a set of reasonable adjustments designed to remove social barriers from existing viva process for the benefit of autistic doctoral viva candidates. Our objective is to ensure that autistic students, who experience atypical differences in social interaction, social communication, and social imagination, are examined on intellectual ability, not social prowess. Recommendations are based on our many years of work with autistic adults in higher education and elsewhere and relevant literature. It is our view that these proposals could also benefit non-autistic doctoral candidates. Key proposals are to allow candidates the choice of a 'virtual viva' via electronic mail; to prepare a 'needs assessment' pre-viva; and to ensure that those involved understand autism sufficiently to appreciate issues specific to the individual and their viva. Academic rigour and integrity would not be compromised but the playing field might be flattened.

Key words: Asperger syndrome; autism; doctoral viva voce; needs assessment; virtual viva

Introduction

The Doctorate of Philosophy (PhD) is 'an important award, recognised internationally to signify high level *intellectual* endeavours in a specialised field of study' (Johnston, 1997, p. 333, our italics). The same is so for professional doctorates such as the Doctorate of Education (EdD). In the UK the viva voce or oral examination (hereafter referred to as a 'viva') is the penultimate (depending on corrections) or final hurdle at which a candidate defends their thesis (QAA, 2011a). The viva has been described as a 'gate-keeping function and ... a marker of standards' (ibid., p. 23). Viva processes vary within and across institutions, rendering processes mysterious, unpredictable and potentially frightening for students (Burnham, 1994; Delamont et al., 2004; Morley et al., 2002; Rugg and Petre, 2004; Watts, 2012). Park (2003) piloted viva best practice at Lancaster University. Following 'the unofficial endorsement of the National Postgraduate Committee' (Groves, 2003, cited in Park, 2003, p. 8) Park's framework was adopted by Lancaster in 2005 (Pearce, 2005), and still operates there (Child, 2013), but we have found no evidence of its adoption elsewhere. Reasonable adjustments presented here are informed by Park.

^{*} Corresponding author: Nick Chown, C/ de Tarragona 81, Palau-solità i Plegamans, 08184, Barcelona, Spain. Email: npchown@gmail.com

Aiming for equivalency, the Quality Assurance Agency for Higher Education (QAA) identify an objective of their doctoral characteristics guide as ensuring those candidates 'face similar *intellectual* challenges' (ibid., p. 23, our italics). Our recommendations, designed to remove *social* barriers in order to achieve an autism-friendly viva focussed on the *intellectual* were informed by the experiences of a small number of autistic PhDs¹. 'Autism-friendly viva' is a limiting descriptor as our recommendations may potentially also benefit non-autistic students (Walters, 2010). Our research was sensitive to the potential vulnerability of persons with autism, however academically able (Bogdashina, 2008; Khare and Mullick, 2014; Wing, 1992). Informed consent was gained for the email contact which is often preferred by autistic individuals. Participant anonymity has been ensured, and strict confidentiality maintained.

Background on autism

VanBergeijk, Klin and Volkmar, (2008, p. 1359) stated that 'In the 1990's (sic) a surge of children were diagnosed with autism... and are now approaching college age'. Numbers of students with an autism diagnosis are increasing annually. There can be no figures relating to students without a formal diagnosis. Autism and Asperger Syndrome (AS) both involve developmental delays in social interaction, social communication, and social imagination (Wing, 1981; 1997) often causing difficulty in social settings although high functioning autism and AS are associated with at least average intellectual ability. A viva is social in a trivial sense but, more importantly, Trafford (2003) refers to the 'social/intellectual transactions between examiners and candidates' (p. 114-115, our italics) and 'unfolding social processes' (p. 115, our italics) that take place within the viva. Autistic people are often in an almost constant state of high anxiety (Gillott, Furniss and Walter, 2001; Kim et al., 2000; Martin, 2010). Martin (2010) identifies the viva as especially stressful for students with autism and AS who are therefore likely to be disadvantaged. White et al. (2009) suggest that autistic candidates are unlikely to be able to make sense of all the social transactions and processes in the viva. A tendency for single-track² thinking will also potentially make the viva experience substantially worse than for a non-autistic student. An inherently stressful, potentially frightening experience for anyone can be traumatic for an autistic student.

The sanctity of the viva

There is ongoing discussion on the efficacy, and indeed validity, of current viva process (Morley et al., 2003; Tinkler and Jackson, 2000; Watts, 2012). It is not our intention to contribute to this debate, but to propose changes to current process to make for an autism-friendly viva. Potter (2006) identified three critical viva functions: (1) to check that the thesis is actually the work of the candidate; (2) to assess the ability of a candidate to be articulate under stress in the defence of their work; and (3) to clarify aspects of the candidate's thesis. We argue that functions (1) and (3), although essential, could be achieved in other ways. Function (2) – evaluating a candidate's ability to be 'articulate under stress' – could hardly be more autism-unfriendly. We ask, would a doctoral degree be devalued if a candidate was required to defend their thesis robustly in a non-stressful manner such as via an exchange of emails with examiners in a controlled environment? Watts (2012) suggests that, being 'articulate under stress (is) seen as an important function of being a professional researcher' (p. 372). However, a doctorate is supposed to be an assessment of academic ability and originality at the highest level rather than a test of resilience under pressure.

_

¹ We undertook semi-structured email interviews based on the initial question set at Appendix A.

² In referring to single-track thinking we have in mind the monotropism theory of autism (Murray, Lesser and Lawson, 2005, p. 142) discussed briefly in the autism theory section of this article.

The need for an autism-friendly doctoral viva

Given the status of the doctorate, it is expected that the viva will be demanding. Defending doctoral level work to examiners in a formal setting is inherently stressful. However, Delamont et al. (2004) argue that the viva should not be a frightening event for any student. We argue that the additional challenges around social interaction make a viva potentially more frightening for autistic candidates. Our recommendations aim to ensure that autistic candidates are not placed at a substantial disadvantage because of their difficulties with social interaction. Rather than proposing positive discrimination we consider here amelioration of disadvantage.

Autism theory in the context of the doctoral viva

There are various theories of autism, or theories that can be applied to autism, but we shall confine ourselves to brief descriptions of those theories of most relevance in the context of the doctoral viva. Theory of mind (ToM) refers to the ability to attribute mental states to self and others (Frith and Happé, 1999). This theory contends that autistic people are often delayed in the development of this ability, affecting their social interaction and social communication. For instance, if viva questions are posed in ways which require understanding the subject matter from an examiner's perspective considerable disadvantage may result.

Executive functioning (EF) involves 'several abilities for preparing and engaging in complex organised behaviour' (Macintosh and Dissanayake, 2004, p. 426). EF is generally considered to encompass formation of abstract concepts, planning, focusing, sustaining and shifting attention, shifting focus, and working memory (Macintosh and Dissanayake, 2004). Studies demonstrate that some EF processes, such as planning, are likely to be adversely affected in autism (Fisher and Happé, 2005; Liss et al., 2001; Verté et al., 2006). An autistic candidate's answers to viva questions may not be as well organised as a non-autistic candidate's answers; for example, appearing 'never ending' as the candidate links one interesting thought to another. Examiners could be given more jurisdiction, by prior agreement, to stop a candidate when they have answered the question to the required extent, thus avoiding unnecessary stress for someone who does not know when to stop talking.

The weak central coherence (WCC) theory of autism was developed by Frith and Happé (1994). WCC is described by Attwood, (2007, p. 241) as 'being remarkably good at attending to detail but (having) a weakness in perceiving and understanding the overall picture, or gist'. Whilst it was originally proposed that autism involved WCC, Happé and Frith, (2006) now characterise central coherence in autism as a *preference* for local processing i.e., as a different information processing style, rather than an impairment. Monotropism theorists argue that autism involves a state of heightened (hyper) awareness inside an 'attention tunnel' and lessened (hypo) awareness outside this tunnel to explain aspects of autistic cognitive style as well as unusual (hyper- and hypo-) sensory sensitivities (Murray, Lesser and Lawson, 2005). Due to central coherence issues and/or monotropism, an autistic person, although able to understand the gist of a question, may focus on an aspect of detail in their response rather than provide the expected holistic response.

Boucher has attempted to revive 'An earlier hypothesis concerning the psychological cause(s) of language impairment in autism (which) suggested that there is a fundamental deficit in the ability to process transient, sequential stimuli (i.e. stimuli with a temporal dimension) such as speech or manual signing' (Boucher, 2003, p. 250). Boucher (2003) claimed that autism involves varying levels of difficulty in understanding conversation exchanges in real time. The expectation of fluid linguistic reciprocity within academic debate in a viva could well impact on autistic candidates hugely if the time they require to process layers of language is not built in. As well as difficulty in parsing language, autistic candidates may experience difficulty understanding body

language and non-verbal communication including inference. Furthermore, the constant focus of an examiners' eyes on the candidate may be stressful for an autistic candidate.

Equalities legislation

Park (2003, p. 1) writes that 'All institutions require and all students deserve academic procedures that are fair'. Tinkler and Jackson (2000, p. 179)) add that 'most institutions stipulate, often in appeals procedures, that the (viva) examination should be 'fair' and/or 'unbiased". We contend that it is morally unacceptable for any academic institutions, or other bodies, to treat any student unfairly at any stage in the process of gaining any qualification, whether it is a cycling proficiency certificate or a doctoral degree. An intellectually capable autistic doctoral candidate may take longer to understand a viva question, think differently and thus interpret questions in an unusual manner, then take longer to respond, and respond in unexpected, albeit logical, ways. The mantra 'do as you would be done by' does not reflect the requirement for academic practice to accommodate autistic differences, therefore. Under the UK Equality Act of 2010, 'where a provision, criterion or practice of A's puts a disabled person at a substantial disadvantage (to non-disabled people) in relation to a relevant matter in comparison with persons who are not disabled, (A must) take such steps as it is reasonable to have to take to avoid the disadvantage' (Great Britain, 2010, s. 20), these steps being known as 'reasonable adjustments'. This Act applies to universities and autism is regarded as a disability for the purpose of the Act. By section 92(5) of the Act a university 'must not victimise a [disabled] person... in the services it provides or offers to provide' (ibid. s. 92(5). Hence, all elements of the doctoral process, viva included, should be delivered in a manner that does not "victimise" autistic candidates.

Option of a virtual viva (in a controlled environment)

Any social setting, informal or formal, 'friendly' or inquisitorial, may be difficult for an autistic person. Difficulties will be heightened in a vitally important formal examination. Ordinary autistic social anxiety can occur in any situation but will inevitably be compounded by the stress of a high stakes encounter crucial to graduation but mysterious (even to non-autistic persons), unpredictable, and potentially frightening (Watts, 2012). Autism theory can explain some of the specific difficulties faced by autistic viva candidates, and we have provided examples.

Watts, citing Potter, writes that the viva 'is intended to examine the student at their best' (ibid., p. 371). An extremely important and complex social encounter will not bring out the best in a person with autism. We suggest that there are other ways of checking whether a thesis is the candidate's own work and question the justification for requiring *anyone* to be 'articulate under stress' (Morley et al., 2003, p. 65), rather than simply to defend their work robustly.

Parsons et al. (2000) have considered some of the advantages of virtual reality environments for people with AS, and a preference for email and on line communication has been noted. A viva undertaken via email³ has the potential to achieve the viva functions identified by Potter (2006) whilst examining the (autistic) student at their best (Watts, 2012), or, at least, without the added anxiety associated with face-to-face social interaction (Howley, unknown). Murray (1997) highlights an affinity between monotropic attention and computer usage. Advantages of communication by computer are perfectibility (autistic people are often perfectionists) and social and emotional distancing (Bolte, 2004; Murray, 1997; Swettenham, 1996). Benford and Standen, (2009, p. 4) contend that 'The impact of the Internet on high-functioning autistic adults has been likened to that of sign language on the deaf community' demonstrating both the extent of

³ We considered Skype but rejected it as not being autism-friendly as it requires the immediate responses associated with face-to-face interaction, albeit it is not actually face-to-face if the cameras are deactivated.

communication challenges autism may involve and the value of computer-based solutions. In her doctoral thesis, Benford (2008) highlights aspects of computer-mediated communication which she considers, could 'bypass the social communication difficulties of autism' (p. 126) including: absence of nonverbal social context cues; single channel (monotropic) and slower paced communication; a more regular, predictable environment; and the avoidance of face-to-face contact. Autistic respondents to Benford's survey described the chief advantage of email communication as the avoidance of having to respond in real-time, 'In online communication it is generally regarded as ok to pause the conversation..., giving me time to think about what to say next, and I can delete text that I have typed if I change my mind about wanting to say it' ('David', cited in Benford, 2008, p. 264). Benford and Standen consider that email communication 'may have a wider role... in breaking down ... social communication barriers which individuals with (high-functioning autism) face on an ongoing basis' (Benford and Standen, 2011, p. 365).

Equality and academic standards must underpin any decision to implement virtual vivas as a reasonable adjustment. The examination must be undertaken in an environment controlled by the university to ensure candidates were not being coached or otherwise assisted in responding.

Need for an independent Chair or advocate

The assumption that one of the examiners in a viva will act as a Chair to ensure fairness and protocol is usual. Park (2003) and the QAA recommend an independent Chair alongside the internal and external examiners:

Higher education providers that are research degree awarding bodies may appoint an independent, non-examining chair, who may not contribute to the assessment judgement. Such an appointment, and clear guidance on the extent of the chair's role and responsibilities, including details about the circumstances in which the chair will be used, encourages consistency between different vivas QAA, 2011b, p. 27).

Having a sound understanding of autism, and knowledge of the requirements of the individual candidate, could enable the independent chair to consider areas where the candidate may be placed at a significant disadvantage, and be alert to signs of heightened anxiety. Tinkler and Jackson (2000) pointed to practice which 'encourages the appointed examiners to invite attending supervisors to contribute to the discussion in such a way as to act as the 'candidate's friend' (p. 175). The supervisor, who will know the candidate well, may fulfil an advocate function more effectively than an independent chair could. An advocate of the candidate's own choosing 4 may be most helpful in terms of reducing anxiety through their familiarity. The Chair should certainly have a good understanding of autism and its potential implications for the candidate in order to identify potential for significant disadvantage and unreasonable level of stress, including identification of the signs of imminent meltdown or shutdown (so that they can step in to prevent further deterioration in wellbeing). We recommend an opportunity for the candidate to meet everyone attending the viva well beforehand to build familiarity and discuss arrangements. A viva-specific 'needs assessment' should underpin an autism awareness session focused on the specific issues faced by the individual (rather than being general autism awareness training). The candidate should know, and have confidence in, the person delivering the training who should

⁴ This is *not* an attempt to advantage an autistic candidate via positive discrimination but to ensure a level playing field with their non-autistic peers.

6

also be present in the viva (possibly as the independent chair). One of our participants reported that "The external examiner who led the panel, had a wealth of knowledge in autism and was very careful to ensure I was comfortable throughout. I had a couple of emotional outbursts ... and they allowed me to recover before continuing." Ideally, all examiners would be well-versed in the requirements enshrined in equalities legislation and good autism practice. Realistically, one could develop a small cohort of independent viva Chairs for autistic candidates.

Careful selection of a viva panel

Earlier selection of examiners than usual, and careful selection, would provide time to ensure that all parties have a sympathetic understanding of autism, in general, and time for suitable preparation. An independent Chair thoroughly versed in autism could oversee the selection process in collaboration with relevant university staff. Anyone without a reasonable understanding of autism should undergo autism awareness training prior to the viva.

Protocol for the traditional and virtual viva

Our recommendations for the development of a suitable protocol for vivas where the candidate is autistic are as follows. The viva should be regarded as an oral or oral substitute examination of a research degree to allow for the possibility of a virtual viva. An autistic needs assessment is required to ensure that the viva arrangements are appropriate to the individual. The viva team's understanding of autism and its potential implications for the candidate should be facilitated by a briefing session informed by the autistic needs assessment. An independent Chair should act as an observer and manager of the (face to face or virtual) meeting, ensure that procedures are followed, and issues which arise during the viva are addressed appropriately. A named person should sit with the student during a virtual viva, as a reassuring presence and to ensure protocol is followed. The venue and waiting area must not cause problems for a candidate (e.g., because of sensory sensitivities) and, ideally, be familiar to the candidate, and the timing of the viva must be appropriate (e.g., in terms of travelling time from home). Early mornings can be problematic as the candidate may have had an anxious sleepless night. One participant had an anxious sleepless night, although holding a viva late in the day can also be a problem. One participant commented "I was given the opportunity to choose the approximate time of my viva – mid morning – so I did not have to wait around all day". This participant also pointed out that "I was called in to the viva later than the given time, allowing me to get more anxious". Another said "Immediately before the viva I was asked to wait in a public area ... which was awful. There were too many people there who knew me ... and the number of people who came up to me to chat was extremely stressful". Candidate interrogation should follow a predictable structure. An outline structure and initial questions should be made available to the candidate a week before the viva to reduce the stress of having to understand the nature of questions as well as compose their responses. Follow-up questions will be unrestricted in order for the examiners to fulfil their role. Immediately prior to the start of the viva the Chair should explain the 'rules of engagement' clearly. Several participants noted that positive comments about their thesis had helped put them at ease. They also said that confirming a positive outcome at the end was a relief. The examiner may be briefed to use phrases like, 'I'm going to stop you there and ask you a slightly different question on the same theme' if the candidate is going off the point. Questions like, 'Can you say a little more about that' might be ambiguous (and could elicit a 'yes' or 'no' response) so a degree of prompting may be necessary. (These strategies could be demonstrated in a practice session). The candidate is likely to respond well to direct questioning about the topic as it will be a 'special interest' and important to them. One respondent noted that his examiners asked so few questions on the subject matter of his thesis – a special interest - that he 'spent hours and days afterwards turning it all over

in my mind which I regard as perpetuating an adverse viva experience beyond the confines of the viva itself'. Ambiguous questioning may fluster so specific strategies to seek clarification may be helpful, such as asking, 'Please will you repeat/rephrase the question'. Examiners should be encouraged to ask short clear questions, and to ask follow-up questions if further elaboration is required.

A number of participants stressed the anxiety arising from not knowing what to expect at their viva. One described his viva experience as follows:

In the main – terrifying. It was the absolute fear of both the unknown and the concerns about looking like a total idiot in front of the panel, all of whom I knew, two of whom I had/have a great deal of respect for. I was very frustrated at the almost total lack of what to expect, and *this took up a huge amount of intellectual and emotional energy for months prior to the event itself* (our italics).

A brief written note should be handed to the candidate explaining how the viva will be conducted; for example, setting out the approximate timing and arrangements for breaks⁵ will help to reduce anxiety resulting from uncertainty. It is useful to acknowledge to the candidate that everyone is nervous at their viva, and this is not specific to autistic students, otherwise the candidate may internalise their anxiety as a personal failing, and become anxious about being anxious. In addition to a written pre-brief, meeting the viva team in advance, visiting the room, knowing what they can take in (water, for example), advice to eat, drink and go to the toilet pre-viva (without being patronising) can be helpful. One participant said:

I arrived in ... the day before my viva to meet with my DOS (Director of Studies) in his office. After a "calm me down" chat, we walked over to the room allocated for my viva so that I knew exactly where it was, what it looked like, how big it was etc. This really helped.

However, the same participant wrote that she would like to have been given an opportunity "to set up my 'area' in the room *before* walking in" (participant's italics).

Finally, there is a need for post-viva feedback and creation of a 'safety-net'. Feedback should be provided as soon as possible and be very specific and sensitive. Many autistic candidates are perfectionists and have low self-esteem, despite being high achievers, and therefore need to leave the feedback session knowing exactly what they have done well, and what they need to do in order to complete the process. It is vital to spell out that it is usual to have to make some amendments (a topic which should have come up during viva preparation). All feedback should be followed up in writing quickly, as the candidate will be waiting anxiously and may over interpret delay. Assistance should be available for follow-up action which should be clarified in writing, and discussed carefully, to avoid unnecessary rewriting. One participant proposed "some kind of "post viva support group or forum" to share experiences and "just get it out of the system". Another would have liked to meet his examiners "at a later date (perhaps after modifications) with no formal constraints to discuss aspects of the thesis that I wanted to chat about that hadn't come up in the viva".

8

⁵ A virtual viva is likely to last longer than a traditional viva. Breaks will still be required of course but it may be that longer sessions between breaks will be possible.

If the candidate fails their Doctorate, a 'safety net' is essential. An M Phil instead of a PhD may be perceived as failure and very careful discussion, on more than one occasion, around the merits of this award, will be necessary. The advocate and/or supervisor should be involved and the candidate may wish to record the discussion as they are likely to be too stressed to remember it.

Additional protocol for the virtual viva

To the fullest extent possible virtual vivas should mirror best practice associated with face-to-face vivas. Specific protocol for the virtual viva should include the following. The likelihood is that a virtual viva involving an autistic candidate will take considerably longer than a traditional viva so at least half a day should be set aside, with flexibility to run over. The supervisor's supportive watching brief role can be mirrored in an electronic viva by copying them in on all questions and responses but not allowing the supervisor to intervene (other than to alert the Chair to any signs of increasing anxiety in the candidate). A mock virtual viva is recommended to aid candidate preparation and therefore reduce anxiety. To reassure the candidate that they have been able to communicate key points from the outset, a brief email summary of their thesis can be requested at the commencement of the viva instead of the verbal summary in a face-to-face viva. The candidate should be entitled to email the chair confidentially during the viva in a way which mirrors the opportunity to talk to them privately in a face-to-face viva.

Additional protocol for the face-to-face viva

The following aspects of protocol are appropriate for a viva with an autistic candidate where everyone involved is present in the same room. It is essential for the candidate to have an opportunity to meet the viva panel before the viva to reduce the stress that can be involved in meeting new people for the first time. There should be an agreed mechanism for the candidate to indicate rising anxiety levels during the viva, such as a special form of words or an alert card. Provision for regular breaks is necessary and arrangements, which would have to include chaperoning, must be agreed in advance. Prior to the viva social conventions such as eye contact may need to be discussed. The viva is not a test of the ability to look at other people in a socially conventional way and it may be useful to articulate an agreement that this does not matter. Non-disclosure of autism should not prevent the making of reasonable adjustments; a candidate should be allowed to discuss 'access requirements' rather than a diagnostic label.

Discussion

People on the autism spectrum functioning academically at doctoral level may be challenged by differences in social interaction, social communication, and social imagination, and other people's attitudes towards them. We have presented recommendations for changes to vivas designed to level the playing field (rather than positively discriminate) without adversely affecting the academic rigour or integrity of the process. Universities are expected to provide opportunities attuned to disabled students and the viva experience should avoid undue stress and anxiety by allowing for social difference associated with autism. Our recommendations are designed to enable the viva to examine intellectual rather than social prowess. Key proposals are to allow the choice of a 'virtual viva' undertaken via electronic mail; to develop an autistic 'needs assessment' prior to a viva; and to ensure that everyone involved in a viva understands autism well enough to appreciate the specific issues faced by each individual candidate. If the viva 'is intended to examine the student at their best' (Potter, cited in Watts, 2012, p. 371) then it must not be a test of being 'articulate under stress' (Potter, 2006; Watts, 2012) as an autistic candidate is unlikely to be articulate under stress. Reducing mystery and unpredictability around the viva should render the experience less frightening, and more

rewarding. Good autism practice may well be adopted for non-autistic students to their benefit and without compromising the traditions and rigour of doctoral examination.

We conclude with an example of a simple effective 'protocol' agreed between a successful autistic doctoral candidate (x), her Director of Studies, and examiners.

- 1. The panel will convene at 9.30am
- 2. The viva will commence at 10.30am⁴
- 3. The viva will be completed by 12.30pm in all likelihood
- 4. x will be able to use a desk to sit behind
- 5. x will have access to her thesis and any notes she wishes to bring with her
- 6. x will be allowed to take a break of a reasonable duration at any time if her anxieties become overwhelming
- 7. The panel will start questioning in a (perhaps?) traditional manner of asking her to outline her work, rationale for doing it, and her overall experiences
- 8. The panel will subsequently ask questions relating to the thesis in a chronological manner, i.e. starting at the beginning of the thesis and working through
- 9. The panel will ask questions in a direct, linguistically clear manner and x will not be 'marked down' if she requires clarification; additionally, the panel will respectfully inform x if she has answered a question to their satisfaction, or ask for additional detail if required.

In the interests of promoting equality (and social justice), further research could 'pilot' virtual vivas for autistic (and other) candidates and identify and iron out difficulties with proposed protocol, procedure, technological requirements and academic rigour. The alternative is to continue to discriminate and potentially waste the considerable talent of highly original, deeply motivated people. Actually, that isn't really a viable alternative is it?

References

Attwood, T. (2007). *Asperger's Syndrome: The Complete Guide for Parents and Professionals*, London: Jessica Kingsley Publishers

Benford, P. (2008). *The use of internet-based communication by people with autism* (Doctoral dissertation, University of Nottingham)

Benford, P., & Standen, P. J. (2009). The Internet: A comfortable communication medium for people with Asperger syndrome (AS) and high functioning autism (HFA)?, *Journal of Assistive Technologies*, 3, 44–53

Benford, P. P., & Standen, P. J. (2011). The use of email-facilitated interviewing with higher functioning autistic people participating in a grounded theory study, *International Journal of Social Research Methodology*, 14(5), 353-368

Bogdashina, O. (2008). Different Sensory Experiences—Different Sensory Worlds. *Autism Today, viewed online, 24*.

⁴ The viva commenced five minutes late which made the candidate considerably more anxious than she would otherwise have been. This experience demonstrates the importance of understanding the needs of autistic candidates which can be highly counter-intuitive for persons who do not have an understanding of autism.

Boucher, J. (2003). Language development in autism, *International Journal of Pediatric Otorhinilaryngology*, 67S1, S159–S163

Burnham, P. 1994. Surviving the doctoral viva: Unravelling the mystery of the Ph.D. oral. *Journal of Graduate Education*, 1: 30–4.

Delamont, S., Atkinson, P., & Parry, O. (2004). Supervising the doctorate: A guide to success. McGraw-Hill International.

Denicolo, P. (2003). Assessing the PhD: a constructive view of criteria, *Quality Assurance in Education*, 11:2, 84 – 91

Equality and Human Rights Commission. *Equality Act 2010 Employment Statutory Code of Practice*. HMSO, 2010.

Fisher, N., and Happé, F. (2005). A training study of theory of mind and executive function in children with autistic spectrum disorders. *Journal of Autism and Developmental Disorders*, 35, 757-771

Franks, B., and Hanscomb, S. (2012). Learning through Reflective Dialogue: Assessing the Effectiveness of Feedback Vivas. *Discourse: Learning and Teaching in Philosophical and Religious Studies*, 12(1)

Frith, U., and Happé, F. (1994). Autism: Beyond "theory of mind". *Cognition*, 50(1), 115-132.

Frith, U. and Happé, F. (1999). Theory of mind and self-consciousness: What is it like to be autistic? *Mind and Language*, 14, 1-22

Gillott, A., Furniss, F., and Walter, A. (2001). Anxiety in high-functioning children with autism. *Autism*, 5(3), 277-286

Great Britain, (2010). Equality Act, 2010, Chapter 20, London: HMSO

Halsall, M. (2009). Everest, the Final Furlong: Completing a PhD, [online]. Last accessed 5 May 2013 at: http://insight.cumbria.ac.uk/830/2/Martyn_Halsall-Doctoral_Colloquium.pdf

Happé, F. and Frith, U. (2006). The weak coherence account: detail-focused cognitive style in autism spectrum disorders. *Journal of Autism & Developmental Disorders*, 36:1, 5-25

Higbee, J. L., Katz, R. E. and Schultz, J. L. (2011). *Disability in higher education: redefining mainstreaming*, 2010 IABR & ITLC Conference Proceedings, [online]. Last accessed 13 May 2013 at: http://www.gimi.us/clute_institute/orlando_2010/article%20208.pdf

Howley, M. Asperger's Syndrome in further and higher education students, [online]. Last accessed 8 May 2013 at:

http://www.swanseaitec.co.uk/moodle/file.php/109/ASD_Report_FE_HE.pdf

Johnson, D. (2005). Assessment matters: some issues concerning the supervision and assessment of work-based doctorates, *Innovations in Education and Teaching International*, 42:1, 87-92

Johnston, S. (1997). 'Examining the examiners: An analysis of examiners' reports on doctoral theses'. *Studies in Higher Education*, 22:3, 333-347

Khare, R., & Mullick, A. (2014, May). Research Tools to Study Vulnerable Populations; A Case of Designing Inclusive Spaces for Autism. In *Universal Design 2014: Three Days of Creativity and Diversity: Proceedings of the International Conference on Universal Design, UD 2014 Lund, Sweden, June 16-18, 2014* (Vol. 35, p. 269). IOS Press.

Kim, J. A., Szatmari, P., Bryson, S. E., Streiner, D. L., and Wilson, F. J. (2000). The prevalence of anxiety and mood problems among children with autism and Asperger syndrome. *Autism*, *4*(2), 117-132

Liss, M., Fein, D., Allen, D., Dunn, M., Feinstein, C., Morris, R. and Rapin, I. (2001). Executive functioning in high-functioning children with autism. *Journal of Child Psychology and Psychiatry*, 42:2), 261-270

Macintosh, K.E. and Dissanayake, C. (2004). The similarities and differences between autistic disorder and Asperger's disorder: a review of the empirical evidence. *Journal of Child Psychology and Psychiatry*, 45:3, 421-434

Martin, N. (2010). Minimising the stress of the PhD viva for students with Asperger syndrome, *Good Autism Practice*, 11:1, 52-57

Morley, L., D. Leonard, and M. David. 2002. Variations in vivas: Quality and equality in British PhD assessments, *Studies in Higher Education*, 27, no. 3: 263–73.

Morley, L., Leonard, D., & David, M. (2003). Quality and equality in British PhD assessment, *Quality assurance in education*, 11(2), 64-72.

Murray, D. (1997). Autism and information technology: therapy with computers. *Autism and learning: a guide to good practice*, 100-117.

Murray, D., Lesser, M. and Lawson, W. (2005). Attention, monotropism and the diagnostic criteria for autism, *Autism*, 9:2, 139-156

Murray, R. (2003). Students' questions and their implications for the viva, *Quality Assurance in Education*, 11:2, 109-113

Park, C. (2003). Levelling the playing field: towards best practice in the doctoral viva, *Higher Education Review*, 36 (1), 47-67

Parsons, S., Beardon, L., Neale, H. R., Reynard, G., Eastgate, R., Wilson, J. R., Cobb, S. V., Benford, S. D., Mitchell, P. and Hopkins, E. (2000). Development of social skills amongst adults with Asperger's Syndrome using virtual environments: the 'AS Interactive' project. In *Proc. The 3rd International Conference on Disability, Virtual Reality and Associated Technologies, ICDVRAT* (pp. 23-25)

Pearce, L. (2005). How to Examine a Thesis, Maidenhead, Berkshire: Open University Press

Potter, S. (2006). The examination process and the viva. *Doing postgraduate research*, 251-275.

Powell, S. and Green, H. (2003). Research degree examining: quality issues of principle and practice, *Quality Assurance in Education*, 11:2, 55 – 63

Rugg, G., and M. Petre. 2004. The unwritten rules of PhD research. Maidenhead: Open University Press.

The Quality Assurance Agency for Higher Education. (2011a). *Doctoral degree characteristics*. [online] Last accessed 24 April 2014 at: http://www.qaa.ac.uk/Publications/InformationAndGuidance/Documents/Doctoral_Characteristics.pdf

The Quality Assurance Agency for Higher Education. (2011b). *UK Quality Code for Higher Education, Part B: Assuring and enhancing academic quality, Chapter B11: Research degrees.* [online] Last accessed 24 April 2014 at: http://www.qaa.ac.uk/Publications/InformationAndGuidance/Documents/Quality-Code-Chapter-B11.pdf

Tinkler, P. and Jackson, C. (2000). Examining the Doctorate: Institutional policy and the PhD examination process in Britain, *Studies in Higher Education*, 25:2, 167-180

Trafford, V. (2003). Questions in doctoral vivas: views from the inside, *Quality Assurance in Education*, 11:2, 114-122

VanBergeijk, E., Klin, A., & Volkmar, F. (2008). Supporting more able students on the autism spectrum: College and beyond. *Journal of Autism and Developmental Disorders*, 38(7), 1359-1370.

Verté, S., Geurts, H. M., Roeyers, H., Oosterlaan, J., and Sergeant, J. A. (2006). Executive functioning in children with an autism spectrum disorder: Can we differentiate within the spectrum? *Journal of Autism and Developmental Disorders*, 36(3), 351-372

Walters, S. (2010). Toward an accessible pedagogy: dis/ability, multimodality, and universal design in the technical communication classroom, *Technical Communication Quarterly*, 19:4, 427-454

Watts, J. H. (2012). Preparing doctoral candidates for the viva: issues for students and supervisors, *Journal of Further and Higher Education*, 36:3, 371-381

White, S. W., Oswald, D., Ollendick, T., and Scahill, L. (2009). Anxiety in children and adolescents with autism spectrum disorders. *Clinical psychology review*, 29(3), 216-229

Wing, L. (1981). Language, social and cognitive impairments in autism and severe mental retardation, *Journal of Autism and Developmental Disorders*, 11, 31–44

Wing, L. (1992). Manifestations of social problems in high-functioning autistic people. In *High-functioning individuals with autism* (pp. 129-142). Springer US.

Wing, L. (1997). The autistic spectrum, Lancet, 350, 1761–1766

Wootton, A. J. (2002). Interactional contrasts between typically developing children and those with autism, Asperger's syndrome, and pragmatic impairment, *Issues in Applied Linguistics*, 13:2, 133-159

APPENDIX A – SEMI-STRUCTURED INTERVIEW INITIAL QUESTION SET

- 1. How would you describe your overall viva experience?
- 2. How would you describe your experience *before* the viva?
- 3. How would you describe your experience *after* the viva?
- 4. What were the *good* aspects of your viva, if any?
- 5. What were the *unsatisfactory* aspects of your viva, if any?
- 6. Do you think that your examiners understood autism sufficiently to make the viva autism-friendly? YES/NO
- 7. If you have said 'no' to question 6, what do you think they failed to understand?
- 8. Would you have preferred a 'virtual' (email) viva if this had been an option for you? YES/NO
- 9. What reason or reasons do you have for your response to question 8?