

WestminsterResearch

<http://www.westminster.ac.uk/westminsterresearch>

No evidence against Sketch Reinstatement of Context, Verbal Labels or the use of Registered Intermediaries for children with Autism Spectrum Disorder: Response to Henry et al. (2017)

Dando, C.J., Ormerod, T. C., Cooper, T. C., Mattison, M., Merchant, R., Milne, R. and Bull, R.

This is an author's accepted manuscript of a Letter published in Journal of Autism and Developmental Disorders, DOI: 10.1007/s10803-018-3479-z, 2017.

The final publication is available at Springer via:

<https://dx.doi.org/10.1007/s10803-018-3479-z>

The WestminsterResearch online digital archive at the University of Westminster aims to make the research output of the University available to a wider audience. Copyright and Moral Rights remain with the authors and/or copyright owners.

Whilst further distribution of specific materials from within this archive is forbidden, you may freely distribute the URL of WestminsterResearch: (<http://westminsterresearch.wmin.ac.uk/>).

In case of abuse or copyright appearing without permission e-mail repository@westminster.ac.uk

Running Head: No evidence against Sketch Reinstatement of Context, Verbal Labels or Registered Intermediaries.

No evidence against Sketch Reinstatement of Context, Verbal Labels or the use of Registered Intermediaries for children with Autism Spectrum Disorder: Response to Henry et al. (2017)

Coral J. Dando
Dept. of Psychology,
University of Westminster,
London, UK

Thomas C. Ormerod
School of Psychology
University of Sussex, UK

Penny Cooper
City, University of London, UK
&
Institute for Criminal Policy Research

Ruth Marchant
Ministry of Justice Registered Intermediary
Director Triangle Intermediary Services

Michelle Mattison
Dept. of Psychology,
University of Chester, UK

Rebecca Milne
Institute of Criminal Justice Studies,
University of Portsmouth, UK

Ray Bull
Dept. of Law, Criminology and Social Sciences
University of Derby, UK

Prof. Coral J. Dando, PhD. E-mail: c.dando@westminster.ac.uk
Dept. of Psychology
University of Westminster
115 New Cavendish Street,
London, W1W 6UW
UK

Abstract

Recently, Henry et al. (2017) found no evidence for the use of Verbal labels, Sketch Reinstatement of Context and Registered Intermediaries by forensic practitioners when interviewing children with a diagnosis of Autism Spectrum Disorder. We consider their claims, noting the limited ecological validity of the experimental paradigm, the impacts of repeated interviewing where retrieval support is not provided at first retrieval, question the interviewer/intermediary training and their population relevant experience, and comment on the suppression of population variances. We submit that rejecting these techniques on the basis of this study is completely unwarranted and potentially damaging, particularly if used in legal proceedings to undermine the value of testimony from children with ASD, who continually struggle to gain access to justice.

Henry et al. (2017) have recently reported finding of no evidence for the use of Verbal Labels, Sketch Reinstatement of Context (Sketch-RC) and Registered Intermediaries for interviewing children with a diagnosis of Autism Spectrum Disorder (ASD). We submit that rejecting these techniques solely on the basis of this study is unwarranted and potentially extremely damaging to current practice, future research development, and criminal justice processes, particularly if used in legal settings to undermine the value of testimony from children with ASD. Assertions that research mirrors real life must be clearly evidenced, otherwise there is a serious risk that professionals will ‘seize and freeze’ on results that do not paint a complete picture. Our concerns centre on the paradigm adopted for the study and its clear mismatch with practice and procedure, the impact of the chosen paradigm on memorial performance, and the suppression of population variances. We focus on a number of key paradigm issues, which diverge in significant and damaging ways from the environment faced by practitioners¹.

The paradigm concerned two different mock crime events. Children experienced one event, live or on a video and later that day were interviewed with no retrieval support. One week later children were interviewed for a second time using one of the aforementioned interview techniques, or a ‘best practice’ interview. Clearly, this research involves repeated interviewing, which is only acknowledged in passing, and no connections are made with the extensive literature on repeated interviewing of children. This paradigm also generates theoretical concerns over the encoding environment and instructions (Leclercq, Le Dantec, & Seitz, 2014; Naveh-Benjamin et al., 2014), the stimulus event (Pipe, Lamb, Orbach, & Esplin, 2004), and presentation modality (Pansky, Koriat, & Goldsmith, 2005) all of which are known to affect retrieval performance. We question the appropriateness of using such a mix of presentation formats and events. Given that difficulties with social interaction are a hallmark characteristic of ASD (Baron-Cohen et al., 1995), video presentations offer a number of positive features over a live event – they are predictable, consistent,

¹ Please see additional materials for further details and an extensive reference list.

and create fewer social demands. Children with ASD are known to be more attentive to material when accessed via a computer, and computer-based interventions can significantly improve cognition (e.g., Golan, LaCava, & Baron-Cohen, 2007). The 30% of children with ASD and 83% of typically developing (TD) children who saw the live event had a distinctly different encoding experience, and it is possible that children with ASD may have not have attended to the live event to the same extent as the video.

A protocol for the first interview is not provided, but a footnote reveals that it comprised a free account, followed by a series of probing, specific closed questions (described as open questions). Whether the recommended instructions were provided (i.e., not to guess; tell everything; say if you do not know the answer; tell if you do not understand the question) is unknown, yet all can ameliorate episodic performance at first, and subsequent retrievals. (e.g., Lyon et al., 2008; Memon et al., 1997). The absence of a significant difference in episodic performance at first interview as a function of presentation (live or video) or scenario (keys or phone) does not provide compelling grounds for combining the encoding conditions and scenario types. Basic, broad-brush tests of null effects for overall memory performance, reported as footnotes, do not to allay our concerns. Participant groups were not separated (TD; ASD), the population variances are high, but these were sometimes suppressed using log transformations, sometimes not, which has implications for interpreting the results, and significant findings with small effect sizes are ignored, dismissed as negligible, which is problematic where null effects are sought, as happened here.

A first interview prior to a full Achieving Best Evidence (ABE) interview does not mirror investigative practice, especially when children with ASD are passive witnesses to minor incidents (Ministry of Justice, 2011). ABE is clear that only on some occasions initial questioning may be necessary, and then only a '*very brief*' account should be collected. A more detailed account should not be pursued (p. 10). Yet, in this study the first interview is akin to a structured interview typically used for mock eyewitness research (see Milne & Bull, 2006). In instances where children with a

diagnosis of ASD are involved, a first interview of this nature would be highly unusual, indeed inappropriate, particularly in light of the growing body of evidence showing that interviewing techniques developed for use with typically developing witnesses are ineffective or inappropriate for individuals with a diagnosis of ASD unless specifically tailored for that purpose.

Children with ASD struggle when asked to freely recall information without support because episodic memory and free recall performance are typically reduced (Bowler, Gaigg, & Lind, 2011), as is memory for person-related, and personally experienced events (Boucher & Bowler, 2008). Information is bound differently in people with ASD (Gaigg, Gardiner, & Bowler 2008), and they typically fail to utilise categorical and relational features of information to aid recall (Gaigg et al., 2008). Deficits in source monitoring abilities are also apparent, as are impairments in working memory and verbal information processing (Bowler, Gardiner, & Berthollier, 2004; Hala, Rasmussen & Henderson, 2005). Our greatest concern here is that, by using a first interview prior to interviews with the techniques under investigation, the researchers effectively undermined the basis on which the techniques are designed to operate, as we explain below.

Sketch-RC and Verbal Labels techniques were devised to support episodic recall at first retrieval (Dando, 2013; Dando, Wilcock, & Milne, 2009; Mattison, Dando & Ormerod, 2015; 2016). Likewise, the assistance of a Registered Intermediary (RI) would typically be requested immediately an interviewee is eligible for assistance under the Youth Justice and Criminal Evidence Act 1999. This did not occur for the first interview, and so the potential benefits of the of Sketch-RC, Verbal Labels and RIs are reduced because they were not introduced until the second interview, which interferes with the cognition and social facets of social interaction that techniques for supporting vulnerable witnesses are designed to address, rendering any follow-on support less effective. It is rare for interviewers or RIs to know in detail about the alleged event, and interviewing so many children about the same event is unheard of in practice. The risks of contamination and confirmation bias are well documented (e.g., Loftus, 2003), particularly with children (see Lamb, LaRooy,

Malloy, & Katz 2011). There is no information about how these risks were planned for or mitigated. Also, the autism specialism and experience of the two intermediaries who took part in this study is not provided, likewise the interviewers. Interviewer performance is ignored, *per se*. Yet, the demands of repeat interviewing on interviewer behaviour are well documented, as are the observed problems and the effect of familiarity on children's memory, which can increase across repeated interviews because this exacerbates the problem (e.g., Bruck, Ceci, & Hembrooke, 2002; Powell, Jones, & Campbell, 2003). For example, children can be less accurate in response to repeated closed and probing questions, and they typically do not report original information in subsequent interviews.

There is no reference to the RI peer reviewed academic literature or to the RI Procedural Guidance Manual. A Registered Intermediary scheme operates in Northern Ireland, England and Wales (Cooper & Wurtzel, 2014, Cooper & Allely, 2017) and a pilot scheme is in place in New South Wales, Australia, and their use is proposed for other Australian states and New Zealand. Prior to this, communication assistance had been provided to interviewers for many years (e.g. Marchant & Page 1997). The RI Procedural Manual (Cooper & Wurtzel, 2015) is clear - intermediaries should i) be suitably qualified if they assess children with ASD, ii) keep full records, including of their assessment of each child, iii) the interviewer should be present during each intermediary assessment and initial interview, and iv) assessments would not be limited to one occasion. It is not clear the extent to which procedural guidance was followed, if at all.

Finally, we question the transformation of dependent variable data for applied research of this nature, and we are particularly concerned that only *some* of the variables (e.g., errors and proportion correct) have been transformed for both the null effects and regression analyses. Transforming data can result in researchers addressing an alternative contextual and empirical question, and dismissing techniques resulting from incorrect theoretical and practical conclusions (see Lo & Andrews, 2015; Speelman & McGann, 2013). Transforming data is akin to 'removing' autism and its associated

variability from the sample, which does not speak to the applied context the authors emphasise – forensic professionals cannot statistically alter memory performance.

Therefore, it is our contention that the research reported by Henry et al. fails to test the validity of Registered Intermediaries, Sketch-RC, or Verbal Labels for supporting children with ASD in real world forensic settings for four main reasons. First, their experimental paradigm is not ecologically valid. Second, the use of an initial interview reduces the variance available at a subsequent interview and interferes with the cognition and social facets of social interaction that techniques for supporting vulnerable witnesses are designed to address, rendering any follow-on support less effective. Third, the interviewers do not appear to have the specialist training required for conducting ABE interviews, let alone interviews with children with ASD. The expertise/experience for children with ASD of the intermediaries used is unclear. Fourth, by transforming data the variance associated with ASD is hidden, reducing the likelihood of finding effects of relevance to practitioners. We urge extreme caution when interpreting Henry et al.'s results for practice. If their findings remain unchallenged, there is a risk that children with ASD will be further disadvantaged.

References

- Baron-Cohen, S., Campbell, R., Karmiloff-Smith, A., Grant, J., & Walker, J. (1995). Are children with autism blind to the mentalistic significance of the eyes? *British Journal of Developmental Psychology*, *13*, 379-398.
- Boucher, J., & Bowler, D. M. (Eds.). (2008). *Memory in autism*. Cambridge: Cambridge University Press.
- Bowler, D. M., Gaigg, S., & Lind, S. (2011). Memory in autism: Binding, self, and brain. In I. Roth & P. Rezaie, *Researching the autism spectrum disorder: Contemporary perspectives*. Cambridge: Cambridge University Press.
- Bowler, D. M., Gardiner, J. M., & Berthollier, N. (2004). Source memory in adolescents and adults with Asperger syndrome. *Journal of Autism & Developmental Disorders*, *34*, 533-542.
- Bruck, M., Ceci, S. J., & Hembrooke, H. (2002). The nature of children's true and false narratives. *Developmental Review*, *22*, 520-554.
- Cooper, P., & Allely, C. S. (2017). You can't judge a book by its cover: evolving professional responsibilities, liabilities and 'judgecraft' when a party has Asperger's Syndrome. *Northern Ireland Legal Quarterly*, *68*, 35-58.
- Cooper, P., & Wurtzel, D. (2014). Better the second time around? Department of Justice Registered Intermediaries Schemes and lessons from England and Wales, *Northern Ireland Legal Quarterly*, *65*, 39-61.
- Cooper, P., & Wurtzel, D. (2015). *Registered Intermediary Procedural Guidance Manual*. London, England: Ministry of Justice.
- Dando, C. J. (2013). Drawing to Remember: External Support of Older Adults' Eyewitness Performance. *PLoS One*, *8*, e69937. doi:10.1371/journal.pone.0069937.
- Dando, C. J., Wilcock, R., & Milne, R. (2009). The Cognitive Interview: The efficacy of a modified mental reinstatement of context procedure for frontline police investigators. *Applied Cognitive Psychology*, *23*, 138-147.
- Gaigg, S. B., Gardiner, J. M., & Bowler, D. M. (2008). Free recall in autism spectrum disorder: the role of relational and item-specific encoding. *Neuropsychologia*, *46*, 983-992.
- Golan, O., LaCava, P. G., & Baron-Cohen, S. (2007). Assistive technology as an aid in reducing social impairments in autism. *Growing up with autism: Working with school-age children and adolescents*, 124-142.
- Hala, S., Rasmussen, C., & Henderson, A. M. (2005). Three types of source monitoring by children with and without autism: The role of executive function. *Journal of Autism and Developmental Disorders*, *35*, 75-89.
- Henry, L. A., Crane, L., Nash, G., Hobson, Z., Kirke-Smith, M., & Wilcock, R. (2017). Verbal, visual, and intermediary support for child witnesses with autism during investigative interviews. *Journal of Autism and Developmental Disorders*, 1-15.
- Leclercq, V., Le Dantec, C. C., & Seitz, A. R. (2014). Encoding of episodic information through fast task-irrelevant perceptual learning. *Vision Research*, *99*, 5-11.
- Lamb, M. E., La Rooy, D. J., Malloy, L. C., & Katz, C. (Eds.). (2011). *Children's testimony: A handbook of psychological research and forensic practice* (Vol. 53). John Wiley & Sons.
- Lee, Y., & Nelder, J. A. (1996). Hierarchical generalized linear models. *Journal of the Royal Statistical Society. Series B (Methodological)*, 619-678.
- Lo, S., & Andrews, S. (2015). To transform or not to transform: Using generalized linear mixed models to analyse reaction time data. *Frontiers in psychology*, *6*.
- Lyon, T. D., Malloy, L. C., Quas, J. A., & Talwar, V. A. (2008). Coaching, truth induction, & young maltreated children's false allegations and false denials. *Child Development*, *79*, 914-929.
- Marchant, R. & Page, M. (1997). The Memorandum and disabled children. In H. Westcott & D. Jones (Eds.), *Perspectives on the Memorandum*. (67-79). London: Arena.

- Mattison, M., Dando, C. J. & Ormerod, T. C. (2016). Drawing the answers: How sketch reinstatement supports free and probed recall by child witnesses with ASD. *Autism*.
- Mattison, M., Dando, C. J., & Ormerod, T. C. (2015). Drawing to remember: Supporting child witnesses & victims with Autistic Spectrum Disorder to give 'Best Evidence' *Journal of Autism and Developmental Disorders*, 15, 2.
- Memon, A., Wark, L., Bull, R., & Koehnken, G. (1997). Isolating the effects of the cognitive interview techniques. *British Journal of Psychology*, 88, 179-197.
- Ministry of Justice. (2011). *Achieving best evidence in criminal proceedings: Guidance on interviewing victims and witnesses, and guidance on using special measures*. London: Ministry of Justice.
- Milne, R., & Bull, R. (2006). Interviewing victims of crime, including children and people with intellectual disabilities. *Practical psychology for forensic investigations and prosecutions*, 7-24.
- Naveh-Benjamin, M., Guez, J., Hara, Y., Brubaker, M. S., & Lowenschuss-Erlich, I. (2014). The effects of divided attention on encoding processes under incidental and intentional learning instructions. *The Quarterly Journal of Experimental Psychology*, 67, 1682-1696.
- Pansky, A., Koriat, A., & Goldsmith, M. (2005). Eyewitness recall and testimony. *Psychology and law: An empirical perspective*, 93-150.
- Pipe, M. E., Lamb, M. E., Orbach, Y., & Esplin, P. W. (2004). Recent research on children's testimony about experienced and witnessed events. *Developmental Review*, 24, 440-468.
- Powell, M. B., Jones, C. H., & Campbell, C. (2003). A comparison of preschoolers' recall of experienced versus non-experienced events across multiple interviews. *Applied Cognitive Psychology*, 17, 935-952.
- Speelman C. P., McGann M. (2013). How mean is the mean? *Front. Psychol.* 4:451. 10.3389/fpsyg.2013.00451.