REF2021

Institution: Manchester Metropolitan University

Unit of Assessment: D27 English Language and Literature

Title of case study: Linguistics in Action: informing and improving airport security, police negotiation, parliamentary language and public knowledge

Period when the underpinning research was undertaken: 1ˢᵗ Aug 2015 – Nov 2020

Details of staff conducting the underpinning research from the submitting unit:

Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Dawn Archer	Professor of Pragmatics and Corpus Linguistics	2015 – present

Period when the claimed impact occurred: March 2016 – July 2020

Is this case study continued from a case study submitted in 2014? N

1. Summary of the impact

Professor Dawn Archer specialises in deciphering how language is used to influence, manipulate and deceive. She has used her expertise to train more than 150 European Air Marshals, who protect in excess of 5,000,000 passengers passing through European airports each year. Training for 27 police negotiators has led to linguistic techniques being incorporated into their daily practice, and to the ongoing development of a language-focused toolkit for current and future operational UK police negotiators. Her parliamentary work has led to her being consulted on the spelling of 'anti-Semitism' in Lords Hansard Official Debates, bolstering their style guide practices. Her expertise has also been noted for influencing the conception and production of True Crime documentary programming. Her media appearances and press coverage have an estimated combined circulation of 981,828,907, exposing new audiences to an empirically validated understanding of the linguistic markers of deception and its detection.

2. Underpinning research

In collaboration with the Emotional Intelligence Academy (EIA) Group, Archer's work on deception and its detection is underpinned by the development of two empirically validated analysis systems for uncovering deception. SCAn-R is a real-time analysis system that considers cues across six verbal and non-verbal communicative channels. SCAnS is a semi-automated version of SCAn-R that pioneers the use of corpus linguistic tools to make the analysis more reliable and effective. This work improves on current, predominantly psychological, models of deception detection by focusing on the combined power of linguistic, behavioural and physiological indices. By focusing on mismatches in what a speaker says, their baseline interactional style, and what their body language and other physiological signs communicate, users can identify persons of interest and then test the hypothesis that they are engaging in deception **[1]**. Prior to this work, the role of deceptive language had hardly been addressed at all, especially in contexts such as European airports, and no empirically validated tools for analysing suspects' verbal output had been proposed. Archer and her colleagues introduced pioneering ways of using corpus linguistic tools (where permissible), in addition to improving upon currently available verbal elicitation techniques. Archer has demonstrated, for instance, how small talk can be employed as a covert elicitation technique to catch out suspected 'persons of interest' in airport contexts, while being perceived by genuine passengers as innocuous 'chit-chat' **[2]**.

Archer's work on crisis negotiation is underpinned by a set of original concepts, including the 'reality paradigm', which designates a whole range of cognitive filters through which we perceive and interpret the world **[3]**. Archer has demonstrated that by homing in on what subjects say and how they say it, negotiators can familiarise themselves with a subject's reality paradigm, and hence more easily secure common ground by tailoring their own speech to the situation at hand. She has also demonstrated how pragmatic techniques can be employed by negotiators to deliver their message more effectively while, importantly, avoiding further conflict. For instance, she advocates the use of 'face-enhancing' techniques, including the affirmation of subjects' positive actions/decisions and honesty, and has

demonstrated how such language builds rapport and trust in high-stake crisis negotiation scenarios **[4]**.

Archer's parliamentary work highlights the importance of linguistic analysis in formally describing how House of Lords and Commons speakers negotiate their political differences. She has introduced novel ways of combining linguistic analysis and corpus linguistic tools to uncover pragmatic phenomena in Hansard Official Debates and has demonstrated how such an approach can successfully disclose implicit meaning. Applying these methods, she has revealed, for instance, how speakers make subtle pragmatic choices, such as veiling their intended meaning in superficial politeness, and using impression management strategies to avoid being reprimanded and censored for using 'unparliamentary language', while clearly conveying their intentions nevertheless **[5, 6]**.

3. References to the research (indicative maximum of six references)

1. **D. Archer** and C. Lansley, 'Public appeals, news interviews and crocodile tears: An argument for a multi-channel annotation scheme', *Corpora* 10(2) (2015), 231-258. https://doi.org/10.3366/cor.2015.0075

2. **D. Archer**, C. Lansley and A. Garner, 'Keeping airports safe: the value of small talk'. In: **D. Archer**, K. Granger and P. Jagodzinski. (Eds.). *Politeness in Professional Contexts* (Amsterdam and Philadelphia: John Benjamins, 2020) pp. 274-297.

3. **D. Archer**, R. Smithson and I. Kennedy, 'Achieving influence through negotiation: An argument for developing pragmatic awareness'. In D. Kurzon and B. Krykastovsky (Eds.) *Legal Pragmatics* (Amsterdam and Philadelphia: John Benjamins, 2018) pp. 181-202.

4. **D. Archer**, 'The value of facework in crisis negotiation'. In: **D. Archer**, K. Granger and P. Jagodzinski. *Politeness in Professional Contexts* (Amsterdam and Philadelphia: John Benjamins, 2020) pp.300-322.

5. **D. Archer**, 'Mapping Hansard impression management strategies through time and space'. *Studia Neophilologica* 89, Supplement 1: 5–20 (2017) (Special Issue. M. Kytö, J. Smith and I. Taavitsainen [eds], '*Interfacing Individuality and Collaboration in English Language Research World*'). https://doi.org/10.1080/00393274.2017.1370981

6. **D. Archer**, 'Negotiating difference in political contexts: An exploration of Hansard'. *Language Sciences* 68: 22-41 (2018) (Special Issue. A. Haselow [ed], '*Dialogism and Language Change*'). https://doi.org/10.1016/j.langsci.2017.12.005

Funding:

G1.ARMLET (2016 and 2017) pan-European project that attracted a €1.6 million grant from the EU's 'Prevention Of and Fight Against Crime Programme'.

4. Details of the impact

Keeping Airports Safe

Archer's collaboration with the EIA Group saw the development, delivery and evaluation of training for European Air Marshals and Behavioural Detection Officers (BDOs) as part of ARMLET (2016 and 2017), a pan-European project that attracted a EUR1,600,000 grant from the EU's 'Prevention of and Fight Against Crime Programme'. Two cohorts of European Air Marshalls were trained in Romania to use the SCAn-R system. The Training Coordinator for the ARMLET programme notes that this novel approach 'significantly improved [security personnel's] ability to analyse behaviour, making them more effective at their job, whilst also

prioritising (and maximising) the safety' of the '24,000 passengers/civilians that pass through [the Romanian] airport each day. In 2018 alone, this totalled 5,077,693 passengers'. The training was promoted 'as a standard for training programs dedicated to Air Marshal and BDO operators', and has since been 'integrated [...] into current training and operations at the airport as well as work with Diplomatic partners'. In-house trainers have subsequently instructed 'an additional 116 Air Marshals/BDOs from seven EU member states' in use of the SCAn-R system. The Training Coordinator remarks that the airports that engaged with, and benefitted from, the guidance 'now have a reliable internal procedure in place for helping people to detect suspicious behaviour' **[A]**. The Managing Director of the EIA Group notes that, following SCAn-R training, Air Marshals could 'correctly identify persons of interest 87% of the time - a significant increase from around 40% pre-training'. The training also helped to 'significantly reduce the false-positive rate […] resulting in better time and human resource management, reduced inconvenience to genuine passengers, and shorter wait times when going through security checks.' The team have now been 'approached by other European airport security agencies in Germany, France, Belgium and Poland' and work is underway 'to extend [the] training programme across Europe' **[B]**.

Changing Police Negotiator Practices

Based on her work on negotiation and influence, Archer developed and delivered CPD training ('*Negotiating Influence*') in 2016 for 27 locally-based UK Police Negotiators. A senior representative of Greater Manchester's Police's (GMP) Hostage and Crisis Negotiation Unit (HCNU), states that, prior to this, 'negotiator training had been based on a psychology-driven approach of behavioural change' and that Archer's training 'provided novel insight into how language can be used in crisis negotiation scenarios and was a welcome addition to standardised training' **[C]**. Feedback obtained from a post-training questionnaire indicated that the experienced negotiators taking part in the training viewed it as both innovative and valuable. Attendees indicated that 'I was initially trained as a negotiator in 2005. I don't recall any learning involving linguistics as part of our training. Most negotiator training revolves around psychology and behavioural interpretation not language in my view' and that the guidance allowed them to develop 'a deeper understanding about why [subjects] may be using' the words and structures that they do **[D]**. This CPD work led to Archer's ongoing collaboration with the National Negotiation Group (NNG), which includes the development of a 'Police Negotiator's Toolkit' that prioritises linguistic techniques matched to specific incident-types, such as barricades, sieges and suicide intervention. As the Assistant Commissioner for the Metropolitan Police notes, 'it is the first time that training has been looked at and refreshed in this way for a long time'. The research conducted was judged to be 'high-quality, rigorous and scientifically based'. In a testimony, the Assistant Commissioner commends Professor Archer's 'genuine passion for negotiation, compassion for others and saving lives' **[E]**. Comments from three focus groups (based on the Report written for the NNG and prototype training materials) were also especially positive. Contributors signalled the importance of being able 'to apply some science to what we do, particularly if some things are shown to work better in different scenarios'. It was noted that 'by having a better-informed understanding of the nature of language and the way in which it can affect a subject's mood/belief/action', negotiators 'can be better prepared to negotiate more effectively' **[D]**.

Informing Government Record-keeping Practices

Archer's Hansard-related work attracted the attention of the Editor of Lords Hansard, John Vice, in 2017. Following a claim from a pressure group that certain variants of the contentious term 'anti-Semitism' can legitimise 'a form of pseudo-scientific racial classification', and hence 'jeopardi[se] [the] political impartiality' of Hansard, Vice deemed it 'vital […] to assess the validity of this claim and, if necessary, take action to correct it'. Archer was therefore asked, alongside PhD student Oliver Delgram-Nejad, to determine the different connotations of eight variants based on frequency-of-use versus neutrality-of-use. The research used corpus linguistic techniques (including determining the verbal 'company'

each variant keeps in texts) to analyse data taken from electronic news outlets, social media platforms, politically-focused websites, and other sources. Vice notes that the ensuing report 'enabled me to walk with some assurance this awkward and potentially fraught line between spelling and politics, and to push back against the lobby group with the knowledge that our current style is not obviously problematic. Her authoritative research was a crucial point of stability in a potentially fraught area'. Vice additionally noted that his 'style guide team' developed 'a more mature awareness of the sensitivities of their decisions'. The Lords Hansard team was, therefore, confident to continue using its original formulation, with the additional bonus of gaining a fuller and more rounded understanding of the sensitivities and complexities involved. **[F]**.

Engaging the Public and Influencing True Crime TV Production Practices

Archer appears regularly on television as 'the Listener' on *Faking It: Tears of a Crime* (Series 1-4, 2017-2020) and has served as a communications expert on a three-part Beverley Allitt special (*The Beverley Allitt Tapes*)*,* broadcast by Sky Crime (02/08/2020). She has also contributed widely to radio discussion of linguistics, most notably on BBC Radio 4's *Word of Mouth.* Archer's analysis for these popular programmes calls on her research insights based upon using linguistic and paralinguistic 'points of interest' from 'multi-channel' communication, in order to identify possible deception in taped interviews with murder suspects and high-profile subjects of legal action. During the latter part of 2020, Archer also contributed to a TV special, covering 'Prince Andrew, Maxwell and Epstein' for Discovery Plus UK, as well as two special editions of *Faking It*, covering 'Saville' and 'Trump'.

Steve Anderson (Shearwater Productions Ltd.), producer of *Faking It*, notes that the first two-part series 'broke Investigation Discovery UK's viewing records' and that 'Series 2 Episode 2 alone attracted 209,000 viewers'. Series 4 Episode 1 (aired 12/09/2020) attracted 280,137 viewers: it was also Quest Red's most watched programme on replay (on 14/09/2020) **[G]**. Anderson states the following about Professor Archer's role in the programme:

'As *"*The Listener*"*, her expertise was used to analyse the speech of those suspected of serious crimes - predominantly murder. She studied videotapes and other footage of bogus appeals recorded by TV News bulletins to identify words, phrases and patterns in speech that may point to potential guilt. In doing so, she was able to introduce the public to complicated linguistic topics and explain them in accessible terms. Throughout the series, Professor Archer educated the public on how language can be used to identify dishonest people. The educational value was made clear by comments left across social media platforms. On Professor Archer*'*s Twitter account, for example, we can read the following: *"*It is a pleasure observing how you can infer lies from the audio tapes of criminal interviews. I never noticed how significant pauses were until I watched your segment in #FakingIt …It is a case of not taking any…tone/words with a pinch of salt. Brilliant stuff*"'* **[G]**.

Other social media commenters point out that they became aware of how significant pauses, tone and words can be, and that Archer's guidance is 'good to use every day'. A third indicated their plan to put into practice what they had learnt in their viewing by 'testing [it] out […] at school' **[H]**.

Katie McDougall (Woodcut Media), producer of *The Beverley Allitt Tapes*, points out that 'a large part of my concept [...] was to have a communication expert look at original interview recordings done under police caution'. She 'became aware of Archer's work having listened to her appearance on Radio 4's *Word of Mouth*' **[I]**. McDougall notes that Archer's input 'was invaluable' and 'helped shape my understanding of the language used by [Allitt]'. Furthermore, Archer 'was able to go above and beyond' in her analyses and 'the amount of knowledge and additional content she brought to the project […] influenced my approach to developing the concept for the screen and had a strong impact on how I went about filming the series' **[I]**. Currently, cumulative viewing figures for *The Beverley Allitt Tapes* stand at

217,286**.** As of 12/09/2020, Archer has appeared in programmes reaching an estimated 2,660,523 viewers (excluding repeats) to demonstrate how linguistic analysis can be put into practice to analyse the verbal behaviour of individuals suspected of deception **[J].**

Archer's radio work includes appearing on BBC Radio 4's *Word of Mouth* to discuss the linguistic indicators of lying, as well as appearances on BBC Radio Leeds and BBC Radio Merseyside to discuss linguistic deception associated with specific crimes/locations. Archer's appearance on *Word of Mouth* stemmed from the producers being 'particularly interested in [Archer's] work on lying', having 'really enjoyed [her] contribution on *Faking It: Tears of a Crime*' **[K].** *Word of Mouth: Lying,* alone, reached an estimated 6,560,000 listeners **[J].** Because 'the response to the programme [was] fantastic', Archer was subsequently commissioned to write a feature that *Word of Mouth* used to 'promote the programme heavily' **[K].** Archer's work has also featured in magazine and newspaper articles where she has been asked to comment on deceptive language more generally. As of 12/09/2020, these articles had an aggregated potential circulation of 971,621,383 **[J].**

5. Sources to corroborate the impact

A. Testimonial from Training Coordinator for ARMLET corroborating the significance of Archer's research and the training of air marshals.

B. Testimonial from Managing Director, Emotional Intelligence Academy Group corroborating the effectiveness Archer's research on the training of air marshals.

C. Report from Hostage and Crisis Negotiation Unit, Greater Manchester Police corroborating the effectiveness of Archer's research on the training of police negotiators.

D. Evidence from Police Negotiator Questionnaires and Focus Groups.

E. Letter of thanks from Assistant Commissioner for the Metropolitan Police corroborating Archer's impact on training police negotiators.

F. Report from John Vice (Editor of Lords Hansard) on Archer's research into the use of the term "anti-Semitism" and how this was applied in practice.

G. Testimonial from Producer of *Faking It: Tears of a Crime* on reach and significance of Archer's contribution to the television series.

H. Social media comments and audience reaction to Archer's appearances on television.

I. Testimonial from Producer of three-part Allitt special on reach and significance of Archer's contribution.

J. Collated listenership, viewership and readership figures evidencing the reach and significance of Archer's media work.

K. Email correspondence with producers of BBC Radio 4's *Word of Mouth;* '*Word of Mouth: Lying*', 21/01/2020 https://tinyurl.com/y3ntug4v ; article at https://tinyurl.com/yy77alce.