**POLITICS, LIES, AND VIDEOTAPE:
NONVERBAL CUES AND SIGNALS IN THE AGE OF ‘FAKE NEWS’¹**

By

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With our current preoccupation with ‘fake news’ it is perhaps time to consider how such (mis) information spreads (Lazer et al., 2018), and whether “fake news” is false, misleading, or merely uncomfortable. Ironically, these political narratives are often disseminated by the political figures themselves – who then complain about the veracity of media coverage when it does not match their message. This situation is captured by the, perhaps unduly, pessimistic old joke “How can you tell a politician is lying? His lips are moving” which underscores a fundamental concern for scholars who study the political world: how does one judge when a political figure is being truthful (Frank & Svetieva, 2015; Porter & ten Brinke, 2008)? That said the study of the political narrative is important for a number of reasons (Shanahan, Jones, McBeth, & Radaelli, 2017). Information from an authority figure is readily believed and can thus moderate our ability to conceive effective counterarguments (Haslam, Reicher, & Platow, 2010; Ku, Lai, & Hau, 2014).

Approaches to understanding political figures focusing solely on their words fall short as even the most articulate of spokespersons with the most well-developed of scripts fail to convince audiences when their presentation is awkward or not credible. At the same time, less articulate individuals have time and again been shown to be capable of seizing the imagination, and followership, of those enraptured by their speechmaking prowess, even despite an obvious lack of knowledge. With highly scripted leaders, it becomes immediately apparent that there is incongruence between the message conveyed via the verbal channel and the nonverbal signalling accompanying it (Bucy & Newhagen, 1999; Bucy, 2000; Burgoon & Hale, 1988; Gong & Bucy, 2016). More so than other public figures, politicians whose behaviour is slightly out of the norm may be scrutinized even more closely and deemed significantly inappropriate by those not belonging to their in-group (Gong & Bucy, 2016; Stewart & Hall, 2016). In short, when it comes to leadership and persuasion it is not just what you say but how you say it that matters.

When individual political figures are scrutinized, each exhibits a nonverbal behavioural repertoire that is idiosyncratic and potentially predictable (Fridlund, 1994; Patterson, 2017). It is therefore possible to examine and identify deviations in their portfolio of nonverbal behaviours and infer causes for such deviations (Bucy & Stewart, 2018). Considering how, when, and why such behavioural deviations occur in response to questions during interviews (P. E. Bull, 1987; P. E. Bull, 2018; Clayman, 1995; Foster & Stewart, 2017), speeches (P. Bull & Miskinis, 2014; P. Bull, 2016; Choi, Bull, & Reed, 2016) and debate performances (Stewart & Mosely, 2009; Stewart, 2012), as well as the news coverage of such events, provides an opportunity to examine an honest signal of behavioural intention that may or may not map to the spoken narrative (see Fig.1).

In this article recent research findings and theoretical advances that have the potential to provide insights regarding how to best observe our political figures are discussed. Cues and contemporaneous nonverbal signals from the body and face that may influence perceptions of politicians are described as are the means by which they may be deceptively presented, both through traditional means and via media technologies. We conclude with a discussion of the componential processing model (CPM) of affective appraisal and how it can be used to examine affective displays that are processed both consciously and pre-consciously, in turn helping us better scrutinize politicians.

Figure 1: An example of a microdisplay from a politician. Here, the current UK Prime Minister, Theresa May, responds to the outcome of the informal meeting of the European leaders or the ‘Salzburg Summit’ that was held on 19th September 2018. Here, the UK’s draft strategy for leaving the European Union was rejected by the representatives of the 27 European countries. Prime Minister May’s speech was in response to European rejection of the UKs plan to leave the EU. Despite displaying an almost completely unanimated set of facial displays throughout the entire speech. The display of fear was made at 00.15 secs (less than 500 msc in duration) from the start of speech during the sentence ‘*While both sides want a deal then we have to face up to fact that despite the progress there are two big issues where we remain a long way apart.*’. The microdisplay was analyzed with Face Reader 7 (Tracksys, Ltd) which is a commercially available software that utilises a computerised algorithm that can identify a particular facial state be it a display of emotion or a brow position / eye gaze etc. The software has excellent temporal resolution and can recognise differences in affective displays down to the level of the individual video frame. Here the display of fear consists of a number of individual facial muscle contractions that can consist of contraction of the pars medialis and lateralis to raise the eyebrows, the contraction of the levator palpebrae superioris to raise the eyelids and make the characteristic wide-eyed stare that is associated with displays of fear as well as the contraction of the temporalis and internal pterygoid muscles to display the jawdrop. By disentangling the specific set of contractions that constitute a particular facial display we can apply the CPM model and start to appreciate the ‘honest signals’ that the politician is conveying (see e.g., Pentland, 2010).

Cues and Signals

According to Dezechache and colleagues, “*communication occurs when an action (a signal) produced by an individual organism causes a change (a reaction) in another organism where both the signal and the reaction have been designed for these purposes.*” (2013, p. 2). Here, a ‘signal’ is a specific adaptation for both sender and receiver. On the other hand, cues occur when behaviour is caused incidentally, and not as a result of intentional signalling (Dezechache, Mercier, & Scott-Phillips, 2013). This may occur as the result of physical attributes that communicate the capacity, if not the intent, of an individual to successfully engage in a particular behaviour (Maynard-Smith & Harper, 2003; Owren, Rendall, & Ryan, 2010). Nonverbal cues and signals are therefore inextricably linked; the study of one necessitates the study of the other along with their interaction, to ensure a complete understanding of their role in political messaging.

Cues

Body

Static cues such as height, size, and facial characteristics play a role in evaluation of politicians by providing visual confirmation of a political figure’s physical capacity. Politicians who are discernibly taller and heavier, and thus larger, are perceived as more capable of responding to an external threat and preserving the status quo or, alternately, forcibly changing the status quo (see e.g., Senior, 2018). This thus predisposes individuals to favour them as leaders when compared to their smaller counterparts (Boix & Rosenbluth, 2006; Murray, 2014; Sell et al., 2009). Multiple studies support physical size and, concomitantly, strength as a reliable cue regarding behavioural capacity and support for economic policies that reinforce one’s group interests (Petersen & Laustsen, 2018; Petersen, Sznycer, Sell, Cosmides, & Tooby, 2013).

Face

Facial characteristics likewise play an important, if not key, role in perceptions of political figures. Individuals with strong brow ridges, prominent cheekbones, and enlarged jaws are regarded as being more masculine, dominant and aggressive (Knowles, 2018). These traits are preferred in leaders perceived as focusing on external threats. Conversely, the more neotenous characteristics of big eyes and small chins communicate feminine traits of trustworthiness and honesty (Knowles, 2018). These traits, in turn, are important when dealing with internal challenges to group stability that require political strategies involving nurturance (Laustsen & Petersen, 2016; Little, Roberts, Jones, & DeBruine, 2012; Spisak, Dekker, Krüger, & van Vugt, 2012). Furthermore, cues regarding age and health such as skin colouring and symmetry provide insights regarding stability of leadership and potential decisions made (Schubert, Curran, & Strungaru, 2011; Spisak, Blaker, Lefevre, Moore, & Krebbers, 2014).

Potential for deception

Cues from the body and face may be altered by a variety of strategies well known to image consultants. Perceptions of body height and size can be affected by the shoes and clothing worn, respectively (Grabe & Bucy, 2009). Shoes with heels and lifts increase height and suits with shoulder pads increase perceived size and are now commonplace due to their potential to affect perceptions of physical capacity.

Facial displays of dominance and trustworthiness, as well as age and attractiveness, can be affected by a range of over-the-counter cosmetics. The often cited outcome of the U.S. presidential debate in 1960 occurred in part due to Richard Nixon's recalcitrance to use make-up, especially when John

F. Kennedy readily (albeit surreptitiously) wore it, leading to him being perceived negatively in great part due to his sallow complexion as compared with Kennedy's healthy tan (Bucy, 2016).

Our mediated consumption of political figures through television and other screens serves to exacerbate the potential for deceptive cues (Stewart, Svetieva, Eubanks, & Miller, 2018). As a result, televised political debates are often prefaced by extensive negotiation regarding podium size and camera shots to benefit one's candidate while disadvantaging the opposition (Schroeder, 2016). For instance, split-screen shots minimize body size differences by placing the head-and-shoulders of candidates side-by-side, thus diminishing dominance cues, while shots focusing on a political figure's face artificially escalates intimacy with the viewer, especially through the use of often larger-than-life and high definition screens (see Fig. 2).

Figure 2: An example of side-by-side screen manipulation of politician heights. Here the photograph was taken from the first meeting of the US Presidential primary debates that was held at Hofstra University in the USA on 26th September 2016 between republican candidate Donald Trump (who stands at 6 ft, 3 inches or 191 cms) and the democratic front runner Hillary Clinton (who is 5 ft 5 inches tall or 165 cms). Despite Trump being nearly 10 inches taller the use of such side-by-side footage clearly ameliorates this height advantage to ensure both candidates are depicted equally. Such a manipulation is significant as tall leaders tend to be perceived as being dominant, healthy and more intelligent than their shorter counterparts (see e.g., Blaker et al, 2018).

Signals

A politician's ability to effectively communicate their messages to the public through nonverbal signals is accentuated in today's media saturated world with its simulated face-to-face interactions (Stewart et al, 2018). While the mass media certainly influences what we see through their selection of "image bites" (Grabe & Bucy, 2009), how politicians present themselves during debates, speeches, and interviews is very much under their control. Analysis of nonverbal signals from their body and the face thus provides useful representations of communicative and behavioural intent.

Body

As pointed out by App and colleagues, the body serves to signal social status through its posture, while facial displays communicate information that is interpersonally relevant (App, McIntosh, Reed, & Hertenstein, 2011). Postural signals and facial displays do interact to provide socially useful information, even if the messages provided are complex (Toscano, Schubert, & Giessner, 2018). Likewise, important information can be provided through arm and hand gestures, that may regard personality traits more generally (Koppensteiner & Grammer, 2010; Koppensteiner, Stephan, & Jäschke, 2016), or specific information that may contemporaneous with statements made (Beattie, 2016; P. E. Bull, 1987).

Face

The human face has a privileged role in the communication of nonverbal signals (Senior, 2018). Rapid and often subtle facial micro-expressions that may not be consciously perceived can influence interpretation of a political figure's emotional state (Stewart, Waller, & Schubert, 2009) and ascribed leadership traits (Stewart & Svetieva, Under review). Even subtle differences in their

manifestation affect perception. In one study, politicians punctuated “claptrap²” with five different types of smiles with each differing with subtly distinct muscular configurations and each communicating specific emotional intent (Stewart, Bucy, & Mehu, 2015). Thus, one could indeed argue that when regarding smiles from politicians the medium is very much the message and appraisal of the correct political message may benefit from analysis of the specific and individual muscular contractions³.

Potential for deception

Given the rehearsed context of professional politics, an observer may readily misperceive a nonverbal display. Ideological bias certainly affects perceptions, as does partisan identity, regarding the presence and relevance of nonverbal behaviour. Furthermore, it is often incumbent for effective politicians to mask or accentuate certain behaviours in the services of their political and personal goals (Baviera, Peris, & Cano-Orón, 2017).

The ability to affect viewer perceptions goes beyond the camera shots taken and the visual time given to political figures and how they utilize these opportunities (Stewart et al., 2018) to include more interventionist means driven by technological advances. Emerging technologies such as DeepFake that allow for individuals to “wear” the face and use the voice of public figures have the potential to erode trust and destabilize political and social institutions (Farid, 2018). Although currently the detection of such deception may be carried out through frame-by-frame analysis of such critical nonverbal behaviour as eye blinks (Li, Chang, Farid, & Lyu, 2018), ultimately there

² a trick or device to incite applause

³ There is a body of literature suggesting that we may process implied motion from a static facial display (e.g., David & Senior, 2000; Senior et al, 2018). Futurework could therefore examine this ‘implied facial motion effect’ and how it impacts the communication of a particular political message.

is a reliance on consumer scrutiny and capacity (Shen et al., 2018). While the treadmill of technology ensures society must constantly adapt and evolve to address such mimicry, an understanding of nonverbal communication in terms of cues and signals, and how they interact, as well as classifying the behavioural repertoires of political figures, especially in different contexts, through machine learning would allow for the systematic identification of deceptive practices.

Interaction of Cues and Signals

Nonverbal cues and signals from the body and face provide salient and reliable evidence for evaluating and selecting political leaders, especially when compared with the often incomplete, if not misleading, information provided by the political figures themselves. Of note is the potential for interaction between cues and signals and how this effects our perception of political figures. The more static cues of facial physiognomy can influence the interpretation of a facial display and affect interpretation of emotions and behavioural intent. For example, dominance or neotonic cues provided by facial morphology affect perceptions trustworthiness that in turn can be influenced by facial dynamics (Gill, Garrod, Jack, & Schyns, 2014). This suggests that cues provided by facial morphology may influence pre-held conceptions regarding respective leadership styles (Keating, 2002), but also the subsequent (mis)interpretation of these signals (Stewart, Méhu, & Salter, 2015). In other words, the face one is born with might influence the interpretation of its displays and with it potentially affect preferential behavioural strategies.

Potential for deception

Focused attention by observers that would normally be commanded by the combination of capacity cues with nonverbal signals produced by the body and face can be artificially altered by video production choices. How often and how much time a political figure is seen on screen and the type

of camera shot used has a definite impact on viewer perceptions, especially in the early stages of choosing a leader. For instance, side-by-side and split-screen camera shots both emphasize competition for attention, although the latter minimizes size differences while emphasizing aggression through the minimized perception of distance between candidates (Stewart et al., 2018). Furthermore, camera angles and tracking can make political figures appear larger or smaller, changing the effect of their nonverbal signalling, and either establish intimacy or fashion detachment for the viewer by decision to track in or out respectively (Grabe & Bucy, 2009).

Conclusions

Given the inherent complexity of political discourse, which is likely mediated by an equally complex framework of cues and signals, a more involved and molecular theoretical framework is needed. Any approaches should account for moment-by-moment changes in preconscious and conscious appraisals that individuals engage in to interpret the non-verbal behavioural repertoire of political figures. At the same time, there is a need to fully understand the interaction between cues and signals and how this might lead to the misappraisal of communication by politicians. Building from what Gill and colleagues found, there might be connections between specific facial morphology and discrete muscular movements and the appraisal of emotion and behavioural intent. In other words, there is a need to consider facial cues when interpreting the appraisal of facial signals. Likewise, there is a need to consider cues regarding body morphology while interpreting postural and body movements that affect perceptions of political figures communication. One theoretical model that could facilitate our understanding of the non-verbal repertoire of politicians is one borrowed from the study of emotions and is discussed next.

Componential Processing Model (CPM) of emotion appraisal

Emotions are surprisingly difficult to define, meaning subtly different things to different people and changing within a lifespan as emotional vocabulary expands (Barrett, 2017). The work of Scherer and colleagues with the Componential Processing Model (CPM) of emotion appraisal is instructive (K. Scherer & Moors, 2018; K. R. Scherer, 2018). This model describes four major functions of emotion. First, appraisal of events based upon perceptions of their relevance and consequences for an individual's needs, plans, and values. Next, preparation for action based upon perceived appropriateness for dealing with appraised events; this takes the form of action readiness/tendencies and physiological response, and may be signaled by body movements. The third and fourth steps, is the integration of information and then categorization and communication which, largely relies on verbal labeling. With information integration, there is a form of central representation allowing for self-monitoring and self-regulating of potential response(s). How this information is presented as an emotional state may likewise be affected by verbal categorization.

Appraisal of nonverbal behaviour with the CPM

The application of CPM to interpret nonverbal behaviour of politicians is facilitated with a microanalysis by using coding systems as the Facial Action Coding System on a frame-by-frame basis (Ekman & Rosenberg, 1997). Application of this approach allows scholars to conceptualise emotion appraisal as a process with multiple feedback loops. While the end points of such interpretation remain the same, within this model the focus moves from basic emotions to understanding each of the steps that result in both the interpretation of the emotional state that an individual is experiencing but also the potential behaviours that they may engage in.

The value of the CPM can further be seen when one considers that the final semantic representation of an affective state is the end result of seven sequential appraisal checks by observers (consciously

or unconsciously) in terms of: relevance regarding novelty (1) concerning suddenness and (2) the familiarity and predictability of the stimuli, (3) intrinsic pleasantness, and goal/need relevance and, perhaps more significant for the study of political nonverbal behaviour, the implications for the individual in terms of who the causal agent is, and what their motivations are in terms of an outcome's probability, as well as how (4) discrepant it is from expectations, and how (5) conducive and urgent the implications are; (6) the person's coping potential regarding their control, power, and adjustments required, and finally; (7) the normative significance of the event based upon the individual's internal and external standards (Mehu & Scherer, 2012; Mehu, Mortillaro, Bänziger, & Scherer, 2011; Mortillaro, Mehu, & Scherer, 2011; K. R. Scherer, Mortillaro, & Mehu, 2013). Ultimately, the potential to interpret a politician's nonverbal behaviour at a more granular level would have obvious utility not just in understanding their influence on others but also due to the potential to decipher their honest significance (see e.g., Fig .1).

Conclusions

When considering idiosyncratic nonverbal behaviour by politicians it is important to appreciate that type and intent of campaign messaging affects the behaviour. Context matters, as does perception of a political figure's social status, whether in an adversarial position or not (Trichas, Schyns, Lord, & Hall, 2017). Appreciating that emotions and the nonverbal behaviour they predispose individuals to are complex and consist of multiple feedback loops in which both sender and receiver may or may not be consciously aware of, implies that individuals may be misled or deceived at multiple different stages. Whether the preparation for action, the central representation of emotion or the categorization and communication of this information, the interpretation of a political figure's emotional state might be wrong, miscommunicated, or falsely presented, in turn affecting political outcomes. Future research should consider this to better understand politics from a distance and the oftentimes misleading nature played by media coverage.

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