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Multimodal Discourse Analysis

Kay L. O'Halloran

Introduction

Multimodal discourse analysis (henceforth MDA) has become a major paradigm in discourse studies that extends the study of language per se to the study of language in combination with other resources, such as images, scientific symbolism, gesture, action, music and sound. As Tan, O'Halloran and Wignell (2020) explain, interest in multimodal approaches to discourse analysis has surged over the past two decades (e.g. Bateman, Wildfeuer and Hiippala, 2017; Jewitt, 2014b; Jewitt, Bezemer and O'Halloran, 2016; Kress, 2010; O'Halloran and Smith, 2011). Despite the increased interest, terminology in MDA is still used somewhat loosely. For example, language and other resources which integrate to create meaning in 'multimodal' (or 'multisemiotic') phenomena (e.g. print materials, videos, websites, three-dimensional objects and day-to-day events) are variously called 'semiotic resources', 'modes' and 'modalities'. MDA itself is referred to as 'multimodality', 'multimodal analysis', 'multimodal semiotics' and 'multimodal studies'.

For the purpose of clarity, in this chapter *semiotic resource* is used to describe the resources (or modes) (e.g. language, image, music, gesture and architecture) which integrate across *sensory modalities* (e.g. visual, auditory, tactile, olfactory, gustatory, kinesthetic) in multimodal texts, discourses and events, collectively called *multimodal phenomena*. Following Halliday (1978, p. 123), semiotic resources are 'system[s] of meanings that

constitute 'the 'reality' of the culture'. The *medium* is the means through which the multimodal phenomena materialise (e.g. newspaper, television, computer or material object and event). In what follows, the major concerns of MDA, the reasons for the emergence of this field in linguistics, and the variety of approaches which have been developed are discussed, before concepts specific to MDA are examined in more detail and a sample multimodal analysis is presented. Lastly, recent developments in digital approaches to multimodal analysis are discussed.

MDA is concerned with theory and analysis of semiotic resources and the semantic expansions which occur as semiotic choices combine in multimodal phenomena. The 'inter-semiotic' (or inter-modal) relations arising from the interaction of semiotic choices, known *as intersemiosis*, is a central area of multimodal research (e.g. Jewitt, 2014a). MDA is also concerned with the design, production and distribution of multimodal resources in social settings, and the *resemiotisation* of multimodal phenomena which takes place as social practices unfold (e.g. Iedema, 2003; O'Halloran, Tan and Wignell, 2016; van Leeuwen, 2008). The major challenges facing MDA include the development of theories and frameworks for semiotic resources other than language, the modelling of social semiotic processes (in particular, intersemiosis and resemiotisation), and the interpretation of the complex semantic space which unfolds within and across multimodal phenomena. Computational approaches are increasingly being explored as means for handling the multidimensional complexity of multimodal analysis.

There are several reasons for the paradigmatic shift away from the study of language alone to the study of the integration of language with other resources. First, discourse analysts attempting to interpret the wide range of human discourse practices have found the need to account for the meaning arising from multiple semiotic resources deployed in various media, particular digital media. Second, technologies to develop new methodological

approaches for MDA, for example multimodal annotation tools (e.g. Cassidy and Schmidt, 2017) have become available and affordable. Lastly, interdisciplinary research has become more common as scientists from various disciplines seek to solve similar problems. From 'an age of disciplines, each having its own domain, its own concept of theory, and its own body of method', the twentieth century has emerged as an 'age of themes' (Halliday, 1991, p. 39) aimed at solving particular problems. MDA is an example of this shift, given its potential to contribute to the search and retrieval of information.

Approaches to MDA

Gunther Kress and Theo van Leeuwen (2006) and Michael O'Toole (2011) provided the foundations for multimodal research in the 1980s and 1990s, drawing upon Michael Halliday's (2014) social semiotic approach to language to model the meaning potential of words, sounds and images as sets of inter-related systems and structures. Kress and van Leeuwen (2006) explored images and visual design, and O'Toole (2011) applied Halliday's systemic functional model to a semiotic analysis of displayed art, paintings, sculpture and architecture.

Halliday's (1978; Halliday and Hasan, 1985) concern with both text and context, instance and potential, is reflected in these foundational works. That is, Kress and van Leeuwen (2006) adopt a (top-down) contextual approach with a particular orientation to ideology, deriving general principles of visual design which are illustrated via text analysis; while O'Toole (2011) develops a (bottom-up) grammatical approach by working closely with specific 'texts' (i.e. paintings, architectural designs and sculptures) to derive frameworks which can be applied to other works. Subsequent research has built upon these two approaches and extended them into new domains. For example, contextual approaches have

been developed for speech, sound and music, 3D spaces and objects (including architecture and buildings), online media (e.g. websites, blogs, social media), action and gesture, disciplinary knowledge (e.g. mathematics, science and history) and educational research (e.g. see Tan et al., 2020). In addition, grammatical approaches to mathematics (O'Halloran, 2015), hypermedia (Djonov, 2007) and a range of other multimodal texts (e..g. Bednarek and Martin, 2010; Dreyfus, Hood and Stenglin, 2011; Unsworth, 2008) have resulted in an approach which has been called systemic-functional multimodal discourse analysis (SF-MDA). Jewitt (2014a, pp. 32-36) classifies contextual and grammatical approaches as 'social semiotic multimodality' and 'multimodal discourse analysis' respectively.

These approaches provide complementary perspectives, being derived from Michael Halliday's social semiotic approach to text, society and culture (see Iedema, 2003), which grounds social critique in concrete social practices (e.g. van Leeuwen, 2008) through three fundamental principles:

(1) Tri-stratal conceptualisation of meaning which relates low level features in the text (e.g. images and sound) to higher-order semantics through sets of inter-related lexicogrammatical systems, and ultimately to social contexts of situation and culture.

(2) Metafunctional theory which models the meaning potential of semiotic resources into three distinct 'metafunctions':

- *Ideational meaning* (i.e. our ideas about the world) involves:

  – *Experiential meaning*: representation and portrayal of experience in the world.

  – *Logical meaning*: construction of logical relations in that world.

- *Interpersonal meaning*: enactment of social relations.

- *Textual meaning*: organization of the meaning as coherent texts and units.

(3) Instantiation models the relations of actual choices in text to the systemic potential, with intermediate subpotentials – registers – appearing as patterns of choice in text-types (e.g. casual conversation, debate and scientific paper).

Multimodal research has rapidly expanded as systemic linguists and other language researchers became increasingly interested in exploring the integration of language with other resources. There was an explicit acknowledgement that communication is inherently multimodal and that literacy is not confined to language.

Further approaches to multimodal studies have evolved. These include Ron Scollon, Suzanne Wong Scollon and Sigrid Norris' multimodal interactional analysis (Norris, 2004; Norris and Jones, 2005; Scollon, 2001; Scollon and Wong Scollon, 2004), developed from mediated discourse analysis which has foundations in interactional sociolinguistics and intercultural communication, and Charles Forceville's (Forceville and Urios-Aparisi, 2009) cognitive approach to multimodal metaphor based on cognitive linguistics (Lakoff and Johnson, 1980). In addition, critical discourse approaches have been developed (Machin, 2007; van Leeuwen, 2008), based on social semiotics and other critical discourse analysis traditions (see Djonov and Zhao, 2014). A variety of distinct theoretical concepts and frameworks continue to emerge in multimodal studies (Jewitt, 2014b), but most have some relationship to one or more of these paradigms.

The increasing popularity of MDA is evidenced by the growth in recent publications from what have been traditionally distinct areas of discourse studies. Tan et al. (2020) provide a comprehensive overview of the trends in multimodal research, showing how the different approaches have addressed the complex issues arising from the study of integration of language with other resources. Unsurprisingly, there is much debate about the nature of the field. While multimodality can be characterized as 'a domain of enquiry' (Kress, 2009, p. 54)

(e.g. visual design, displayed art, mathematics, hypermedia, education and so forth), theories, descriptions and methodologies specific to MDA are clearly required (O'Halloran and Smith, 2011) and frameworks and tools have indeed been developed (e.g. see Bateman et al., 2017).

As a domain of enquiry, multimodal studies encourage engagement and cross-fertilisation with other disciplines which have the same object of study. Incorporating knowledge, theories and methodologies from other disciplines poses many problems, however, not least being the provision of adequate resources for research to be undertaken across traditional disciplinary boundaries.

The development of theories and practices specific to MDA, on the other hand, will potentially contribute to other fields of study, including linguistics. In this sense, MDA 'use[s] texts or types of text to explore, illustrate, problematise, or apply general issues in multimodal studies, such as those arising from the development of theoretical frameworks specific to the study of multimodal phenomena, or methodological issues'(O'Halloran and Smith, 2011, p. 3) . This chapter deals with MDA precisely in this way – as a field of study which requires specific theoretical and methodological frameworks and tools which in turn may be applied across other disciplines and domains.

Theoretical and Analytical Issues in MDA

Theoretical and analytical issues in MDA include:

(a) Modelling semiotic resources which are fundamentally different to language.
(b) Modelling and analysing inter-semiotic expansions of meaning as semiotic choices integrate in multimodal phenomena.

(c) Modelling and analysing the resemiotisation of multimodal phenomena as social practices unfold.

These issues are considered in turn.

(a) Modelling semiotic resources which are fundamentally different to language.

Following Halliday, language can be modelled as sets of inter-related systems in the form of system networks, which are metafunctionally organised according to taxonomies with hierarchical ranks (word, word groups, clauses, clause complexes and paragraphs and text (see Martin this volume). The grammatical systems link words to meaning on the semantic stratum (see Martin, 2011). Systems which operate on the expression plane (i.e. graphology and typography for written language and phonology for spoken language) are also included in Halliday's model.

Most semiotic resources are fundamentally different to language, however, with those having evolved from language (e.g. mathematical symbolism, scientific notation and computer programming languages) having the closest relationship in terms of grammaticality. Images differ, for example, in that parts are perceived as organised patterns in relation to the whole, following Gestalt laws of organisation. Furthermore, following Charles Sanders Pierce's categorisation of signs, language is a symbolic (arbitrary) sign system which has no relationship to what is being represented (i.e. it is conventional and culturally specific), while images are iconic because they represent something though similarity. Therefore, analytic approaches and frameworks based on linguistic models have been questioned (e.g. Machin, 2009). Nevertheless, models adapted from linguistics such as O'Toole (2011) have been widely and usefully applied to mathematical and scientific images, cities, buildings, museums

and displayed art. In O'Toole's model, the theoretical basis is Gestalt theory where images are composed of inter-related parts in the composition of the whole. O'Toole (2011) draws visual overlays of systemic choices on the image, suggesting a visually-defined grammar as a possible way forward.

Gestalt theory provides the basis for other approaches to visual analysis, including computational approaches to visual perception involving geometrical structures (e.g. points, lines, planes and shapes) and pattern recognition (e.g. Desolneux, Moisan and Morel, 2008) and visual semantic algebras (e.g. Wang, 2009). Perhaps one key to such descriptions is the provision of an abstract intermediate level, where low level features are related to semantics via systemic grammars. However, the problem is that hierarchically organised categorical systems such as those developed for language have limitations when it comes to resources such as images, gestures, movement and sound which are topological in nature (Lemke, 1998, 1999). Van Leeuwen (1999, 2009) proposes modelling systems within multimodal semiotic resources (e.g. colour, font style and font size for typography, and volume, voice quality and pitch) as sets of parameters with gradient values rather than categorical taxonomies ordered in terms of delicacy (i.e. sub-categories with more refined options). In some cases, the existence of an intermediate grammatical level for resources such as music has been questioned (see van Leeuwen, 1999).

(b) Modelling and analysing inter-semiotic expansions of meaning as semiotic choices integrate in multimodal phenomena.

The interaction of semiotic choices in multimodal phenomena gives rise to semantic expansions as the meaning potential of different resources are accessed and integrated; for example, in text-image relations (e.g. Bateman, 2014) gesture and speech (Martinec, 2004)

and language, images and mathematical symbolism (Lemke, 1998; O'Halloran, 2015). This semantic expansion is also related to the materiality of the multimodal artefact, including the technology or other medium involved (e.g. book, interactive digital media) (Jewitt, 2006; Levine and Scollon, 2004; van Leeuwen, 2005).

Semantic integration in multimodal phenomena may be viewed metafunctionally whereby experiential, logical, interpersonal and textual meaning interact across elements at different ranks (e.g. word group and image). The resulting multiplication of meaning (Lemke, 1998) leads to a complex multidimensional semantic space where there may be a compression of meaning and divergent (even conflicting) meanings (e.g. Liu and O'Halloran, 2009). Indeed, there is no reason to assume a coherent semantic integration of semiotic choices in multimodal phenomena.

The processes and mechanisms of semantic expansion arising from inter-semiosis have yet to be fully theorised. It may be that inter-semiotic systems beyond the sets of inter-related grammatical systems for each resource, operating as 'meta-grammars', are required. These inter-semiotic systems would have the potential to link choices across the hierarchical taxonomies for each resource, so that a word group in language, for example, is resemiotised as a component of a complex visual narrative, or vice versa. One major problem for multimodal discourse analysts is the complexity of both the inter-semiotic processes and the resulting semantic space, particularly in dynamic texts (e.g. videos) and hyper-texts with hyperlinks (e.g. internet). As discussed in the sample analysis which follows, this has resulted in the development of software tools which are capable of coding an analysis and visualising the results.

(c) Modelling and analysing the resemiotisation of multimodal phenomena as social practices unfold.

MDA is also concerned with the resemiotisation of multimodal phenomena across place and time: '[r]esemiotisation is about how meaning making shifts from context to context, from practice to practice, or from stage of a practice to the next' (Iedema, 2003, p. 41). Iedema (2003, p. 50) is concerned with resemiotisation as a dynamic process which underscores 'the material and historicised dimensions of representation'.

Resemiotisation takes place within the unfolding multimodal discourse itself (as the discourse shifts between different resources) and across different contexts as social practices unfold (e.g. how a policy document is enacted). Indeed, resemiotisation is the basis of cultural communication and change. From a grammatical perspective, resemiotisation necessarily involves a reconstrual of meaning as semiotic choices change over place and time. In many cases, resemiotisation involves introducing new semiotic resources, and may result in metaphorical expansions of meaning as functional elements in one semiotic resource are realised using another semiotic resource: for example, the shift from language, to image and mathematical symbolism in unfolding mathematics discourse. This process takes place as linguistic configurations involving participants (i.e. who or what is involved, typically realised by nouns), processes (i.e. happenings or states of affairs, typically realised through verbs) and circumstances (i.e. additional information about how, what or where things are happening, typically realised by adverbs or prepositions), for example, are visualised as entities. Resemiotisation necessary results in a semantic shift, as choices from different semiotic resources are not commensurate (e.g. Lemke, 1998).

Processes specific to MDA, such as intersemiosis and resemiotisation of multimodal phenomena, add to the complexity of the semantic space which must be modelled and analysed. Indeed, managing this complexity lies at the heart of MDA.

Sample MDA Text Analysis[1]

Concepts specific to MDA, namely semiotic resource, intersemiosis and resemiotisation, are illustrated through the analysis of an extract from a television multiparty debate, Episode Two of the Australian Broadcasting Commission's (ABC) television show 'Q&A: Adventures in Democracy' broadcast on Thursday 29th May 2008. The moderator is senior journalist Tony Jones and the panel consists of Tanya Plibersek (then Minister for Housing and the Status of Women in Kevin Rudd's Federal Labor Government), Tony Abbott (then Opposition Liberal Party front-bencher) and Bob Brown (then Leader of the Australian Green Party). Other participants in the panel discussion, although not considered here, are Warren Mundine (Indigenous Leader and former president of the Australian Labor Party) and Louise Adler (then CEO and Publisher-in-Chief of Melbourne University Publishing).

The extract is concerned with interactions between Tony Jones, Tanya Plibersek and Tony Abbott about leaked cabinet documents regarding a Government Cabinet decision in favour of a Fuel-Watch scheme to combat rising petrol prices, and reservations about this scheme as revealed through the leaked documents. (Note: * indicates overlap).

Tanya Plibersek	… The reason that cabinet documents are confidential is that so senior public servants feel comfortable giving frank advice to the government of the day.
Tony Jones	Alright. Tony Abbott, you've been in the trenches. That's fair enough isn't it.
Tony Abbott:	Ah, yes it is, but the interesting thing is that the new government is already leaking Tony. I mean normally it takes many years *before a – before – before a government … well I -

Tony Jones:	* yes a little – a little bit like the coalition. Leaking going on all round.
Tony Abbott:	Tired old governments leak. New, smart, clever, intelligent governments aren't supposed to leak, and the fact that this government is leaking so badly so early is a pretty worrying sign

The multimodal analysis includes the interactions between the spoken language, kinetic features (including gaze, body posture and gesture) and cinematography effects (including camera angle and frame size). The multimodal analysis presented here is for illustrative purposes only. A more comprehensive linguistic analysis could have been presented, in addition to the inclusion of other semiotic resources (e.g. studio lighting, clothing, proxemics, seating arrangement and so forth). Semiotic choices are first presented in a static table (see Table 2), followed by an analysis of the video segment using multimodal analysis software which permits the combinations of multimodal choices to be visualised and interpreted.

Halliday's (Halliday and Greaves, 2008; 2004) systemic functional model for language (including intonation) and Tan's (2005, 2009) systemic model for gaze and kinetic action (Figure 1) and camera angle, camera movement, and visual frame (Table 1) are drawn upon for the analysis, as is van Leeuwen's work on the semiotics of speech rhythm (e.g. 1999). Comprehensive descriptions of these models are found elsewhere, and thus are not repeated here. The multimodal analysis of the extract with key salient frames are presented in Table 2. The following analysis reveals how the multimodal choices Tony Abbott makes, particularly with respect to linguistic choices, intonation, gesture and body posture, work closely together to reorientate the discussion about the leaked documents from being a legal issue to a political issue in order to criticise and undermine Kevin Rudd's (then Australian

Prime Minister) Labor government. Following this, Tony Abbott's choices are contrasted with those made by Tony Jones and Tanya Plibersek.

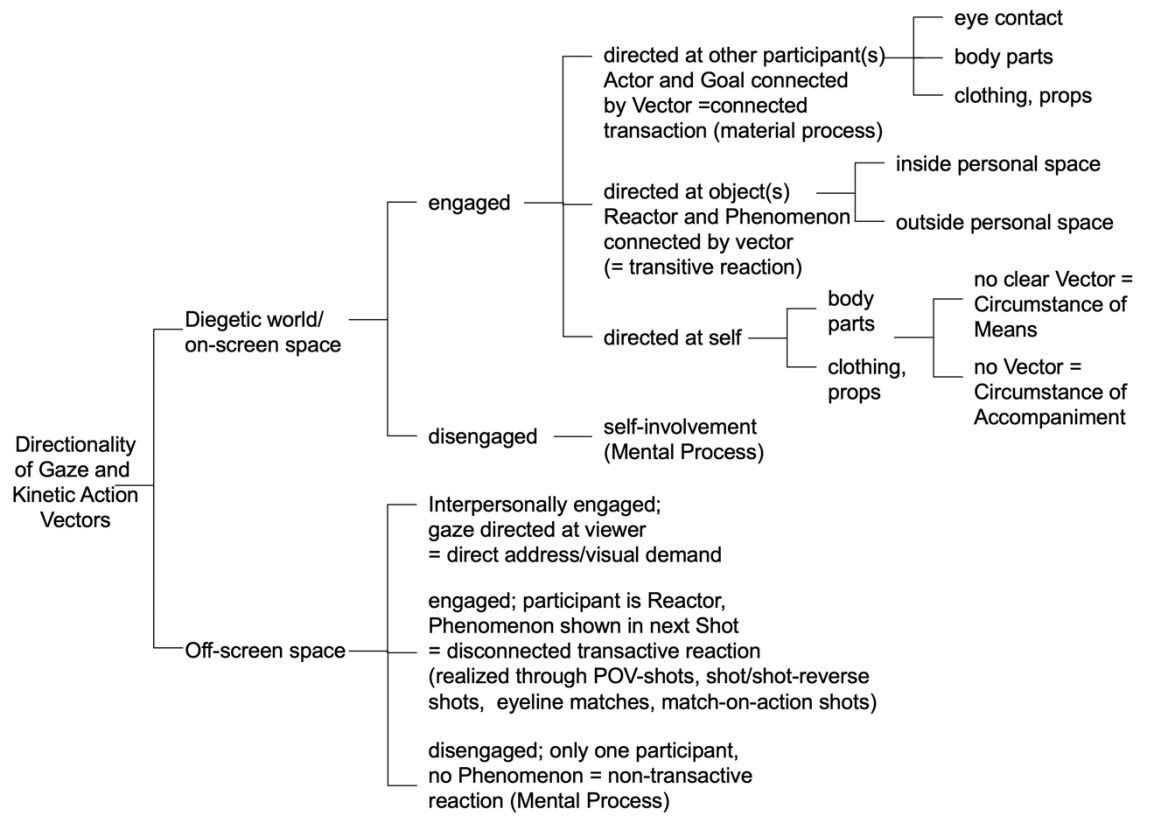

Figure 1 Systemic Networks for Gaze and Kinetic Action Vectors (Tan, 2005, p. 45)

	Angle/Power, Perspective
HP	Horizontal Angle: frontal angle signals involvement, oblique angle signals detachment
VP	Vertical Angle denotes power relations: high/median/low
POV	Point-of-View (subjective image)
	Camera Movement
CM	Camera Movement
stat	Stationary Camera
mobile	Mobile Framing
dolly	Camera travels in any direction along the ground: forward, backward, circularly, diagonally, or from side to side
pan	Camera scans space horizontally from left to right or right to left
tilt	Camera scans spaces vertically up or down
zoom-in/out	Camera does not alter position; space is either magnified or de-magnified
←→↑↓↖↗↙↘↻↺	Directionality of camera movement is indicated by short directional arrows

	Size of Visual Frame
close-up	Shows just the head, hands, feet, or a small object
extreme close-up	Singles out a portion of the face (eyes or lips)
extreme long shot	Human Figure is barely visible; landscapes, bird's-eye views
long shot	Full view of human figure(s) with background
medium long shot	Human Figure is framed from about the knees up
medium shot	Frames the human body from the waist up
medium close-up	Frames the body from the chest up

Table 1 Camera Angle, Camera Movement, and Visual Frame (Tan, 2009, p. 179)

Stage	'Petrol Prices'									
Phase	Leaked Cabinet Documents									
Sub-Phase	Leaking Documents as Legal Issue		Leaking Documents as Political Issue							
	SHOT 1	SHOT 2	SHOT 3						SHOT 4	SHOT 5
Salient Visual Frame										
	Frame 1	Frame 2	Frame 2	Frame 4	Frame 5	Frame 6	Frame 7	Frame 8	Frame 9	Frame 10
SEMIOTIC RESOURCE:										
Speech:										
Speaker 1 - Tony Jones (interviewer):	*Alright. Tony Abbott*	*you've been in the trenches. That's fair enough isn't it?*			* *yes a little – a little bit like the coalition.*	*Leaking going on all round*				
Speaker 2 - Tony Abbott:		*Ah, yes it is*	*but the interesting thing is that the new government is already*	*leaking, Tony. I mean normally it takes many years*	**before a – before – before a government*	*... well I – Tired old governments*	*leak. New, smart, clever,*	*intelligent governments aren't supposed to*	*leak, and the fact that this government is leaking so badly*	*so early is a pretty worrying sign.*
Kinetic Features:										
Gaze:	off-screen; engaged; directed at interviewer	off-screen; engaged; directed at Tony Abbott	off-screen; disengaged; directed at self	off-screen; engaged; directed at studio audience//inter-viewer/Tanya Plibersek	off-screen; engaged; directed at studio audience//inter-viewer/Tanya Plibersek	off-screen; engaged; directed at camera/viewer	off-screen; engaged; directed at studio audience//inter-viewer/Tanya Plibersek	off-screen; engaged; directed at studio audience//inter-viewer/Tanya Plibersek	off-screen; engaged; directed at Tony Abbott	off-screen; engaged; directed at studio audience//inter-viewer/Tanya Plibersek
Body Posture:	angled	angled; leans forward toward Tony Abbott	angled; leans back	angled	angled	straight	angled	angled	angled	angled
Gesture:			raises hand; palm facing outward	raises hand; palm facing outward	hand raised; palm facing outward	both hands raised; palms facing outward/each other	both hands raised; palms facing outward/each other; gap narrowing	both hands raised; palms facing outward/each other; gap narrowing		both hands raised; palms facing outward/each other at reduced distance; downward movement
Cinematography:										
Camera Angle (horizontal perspective)	oblique/ detached	oblique/ detached	oblique/ detached	oblique/ detached	oblique/ detached	frontal/ involved	oblique/ detached	oblique/ detached	oblique/ detached	oblique/ detached
Size of Frame	medium close-up	medium close-up	medium close-up	medium close-up	medium close-up	medium close-up	medium close-up	medium close-up	medium close-up	medium close-up

Table 2 Multimodal Analysis of 'Leaked Cabinet Documents' (Q&A Session, ABC Thursday 29th May 2008)

Tony Jones puts forward to Tony Abbott a proposition with the tag “isn’t it” (which explicitly signals that a particular kind of response is required) with respect to Tanya Plibersek’s defense of her government’s handling of the leaked documents: “That’s fair enough isn’t it?” The (exaggerated) tone 4 (fall-rise) of Tony Abbott’s reply “Ah, yes it is..” (displayed in Figure 2) adds reservation to this proposition, and is an interpersonally focused reply, both in the sense of having the information focus on the Finite “is” – the negotiatory element of the clause – but also in that there is no addition of experiential meaning (in terms of content), until Tony Abbott continues with “but the interesting thing is that the new government is already leaking Tony”.

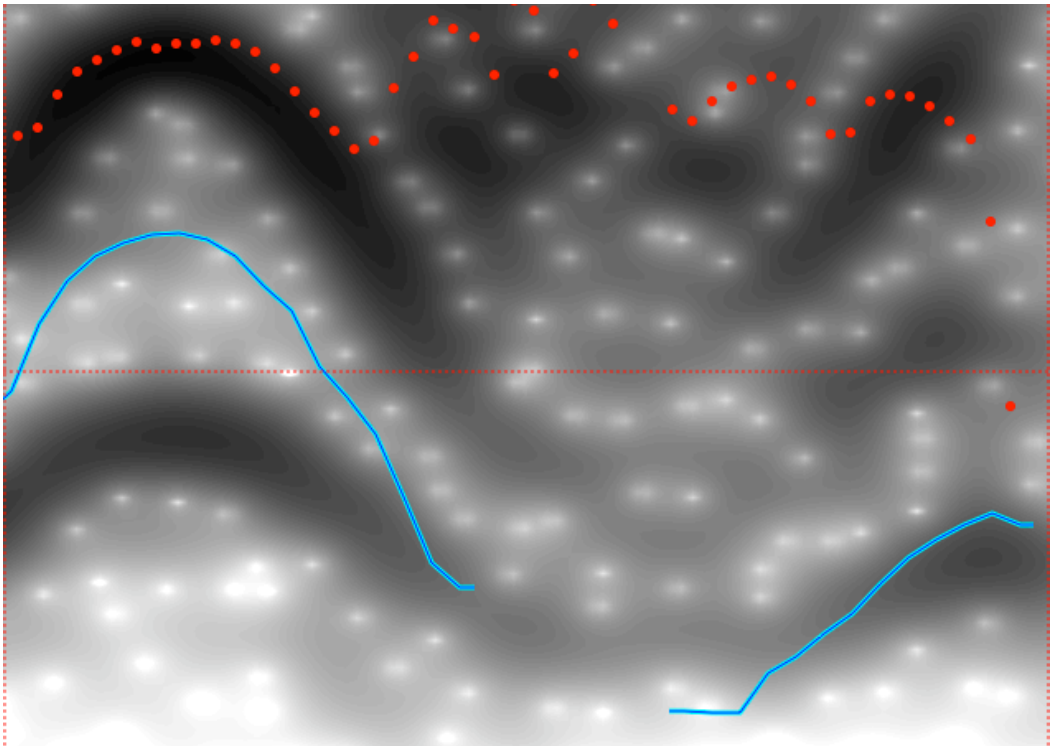

Figure 2 Tony Abbot’s use of Tone 4 (Halliday and Greaves, 2008) in “It IS ..” (Image produced using Praat software)

Tony Abbott thus concedes (via polarity) the proposition as put, but enacts reservation (via intonation) with respect to another field of discourse, that of politics: that the new government is already leaking. Thus, for him the legal issue is not what is at stake here, rather there is a shift to the leaking of the documents as a political issue, resulting in a new sub-phase in the Leaked Cabinet Documents phase (see Table 2 and Figure 3a). He moves the battle to a new ground, and then proceeds to elaborate on his point.

This shifting of the field of discourse is a characteristic of political discourse (well known as 'politicians not answering the question') but in this case, it is possible to see how Tony Abbott effectively employs a range of multimodal resources which function inter-semiotically to change the field of discourse, displayed in Table 2 and Figure 3b-3c). These resources include *clause grammar* (adversive conjunction 'but'); *information unit grammar* (use of the 'reserved' key, realized through falling-rising tone 4); *gesture* (holding up his hand in a 'wait on' movement, which then becomes the preparation for a series of gesture strokes to emphasise the points made, see Figure 3b); *body posture* (first, sitting back and then leaning forward as he makes his point about the new government leaking); and *interpersonal deixis* (Vocative 'Tony' enacting solidarity). Following this, Tony Abbott continues speaking as he sits back and then engages successively with the studio audience, Tony Jones and Tanya Plibersek through gaze and angled body posture, while expanding his hand gesture somewhat (see Figure 3b-3c). He also briefly but directly engages with the viewer with a straight body posture with both hands raised and palms facing outwards to further engage the viewer, before turning his attention back to the panelists Tanya Plibersek and Tony Jones and the studio audience. Tanya Plibersek's 'nonplussed' response in the form of gaze and facial expression (Frame 9 in Table 2, also see second last frame in Figures 3a-c) is a study in itself: she makes no other significant semiotic sign, but is clearly quite familiar with her political opponent's stratagems. Note that the camera is deployed as a semiotic

resource here, in the choice to frame her at this point, setting up a dialogic context between Tony Abbott and herself, despite the fact that it was Tony Jones who asked the question.

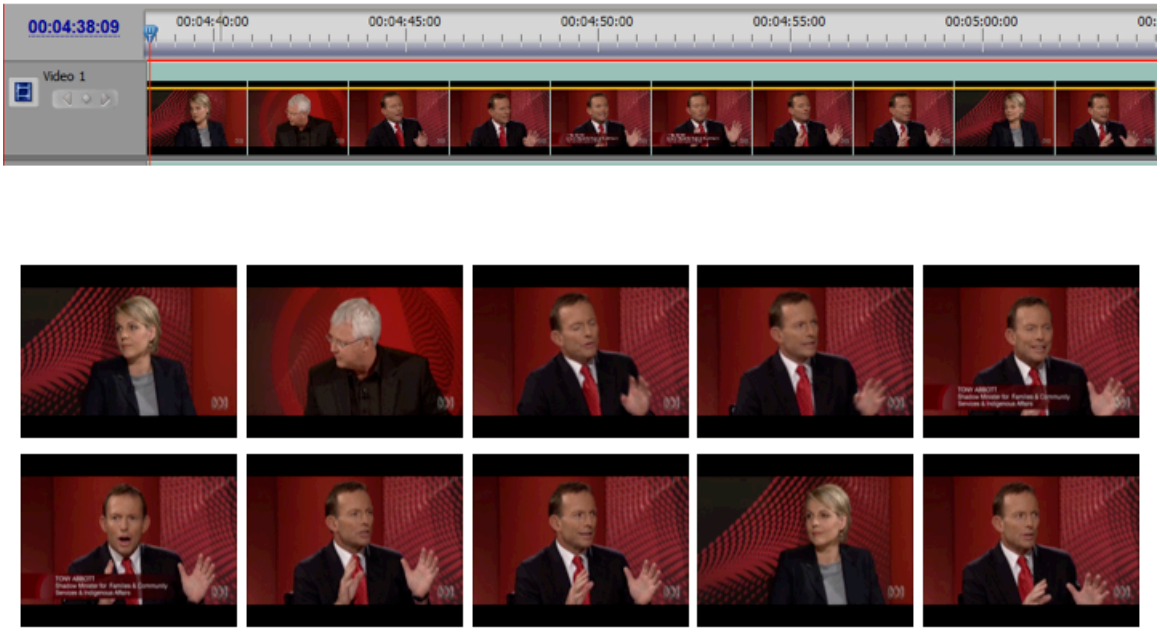

Figure 3a The Change of Field from Legal Issue to Political Issue

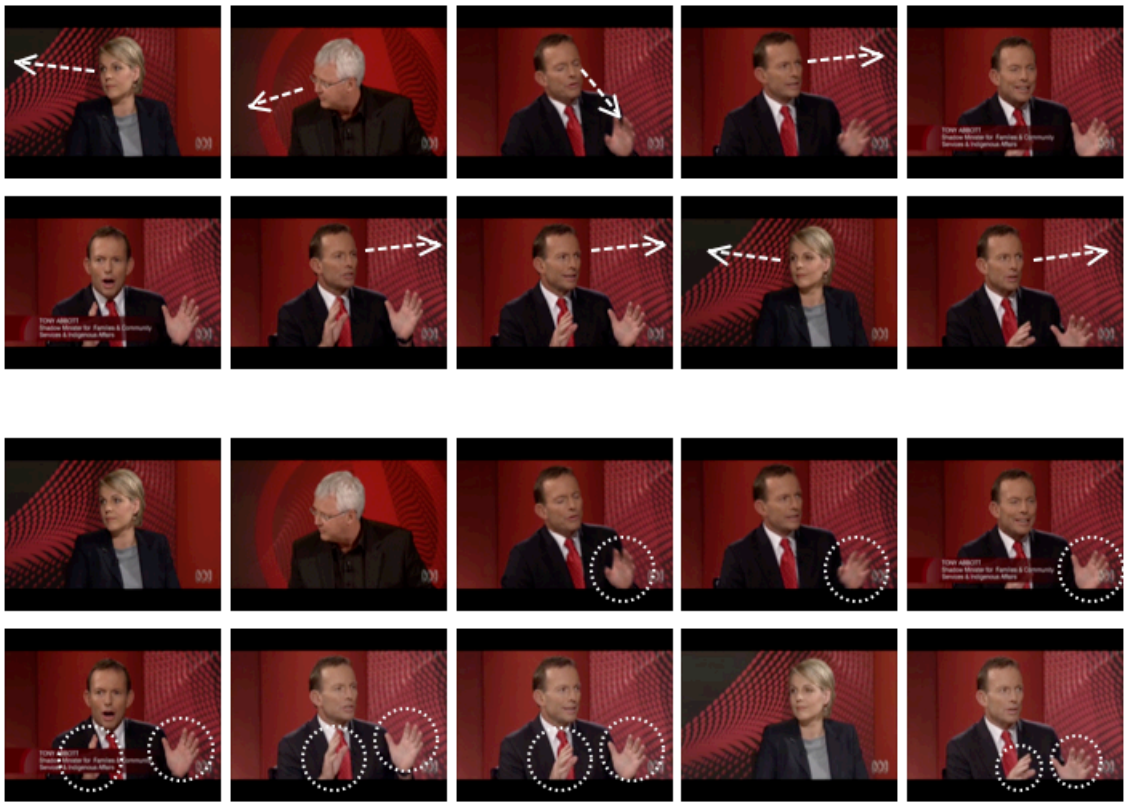

Figure 3b Gaze and Gesture

Figure 3c Body Posture

Figure 3 Tony Abbott's Leaking Documents as Political Issue

Tony Abbott uses gesture and speech rhythm to emphasise lexical items, raising the textual status both of the individual words themselves and the overall point and thereby creating a form of a graduation in emphasis (Martin and White, 2005). The use of gesture and accent together provide a more delicate range of textual gradience, organising the flow of information into varying degrees of prominence – a semiotic expansion arising from the combined visual and aural gradience of the bandwidths of gestural stroke and accent.

At this critical point Abbott establishes a crucial intertextual reference to the whole discourse of the previous Federal election in Australia, when his Liberal government of eleven years was soundly defeated by an opposition which projected itself as being fresh and 'clever' by contrast with the 'tired, old' incumbent government. He does this primarily through rhythm: up to the point where he says "tired, old governments leak" he sets up a distinct temporal patterning of accents, which is then disturbed at the point between 'clever' and 'intelligent' in "New, smart, clever, intelligent governments aren't supposed to leak". Abbott thus plays ironically here on this recent electioneering discourse – and his direct gaze

(see Frame 8 in Table 2) also takes on a semiotic rendering of the ironic satirical tone, as a visual signal of 'playing it straight'.

There are many other opportunities to demonstrate how multimodal resources function inter-semiotically to achieve the agenda of the involved parties, including the producers who use camera shots to create a dialogue between the participants. For example, while Tony Jones engages Tanya Plibersek in a critical dialogue about a Government environmental policy initiative, the camera view changes to include Bob Brown, Leader of the Australian Green Party, who is seen to raise his eyebrows, nod his head, lick his lips and shake his head from side to side, which gestures, afforded by choice of camera shot, entirely recontextualises the dialogue of which Brown at this point is not (verbally) a part.

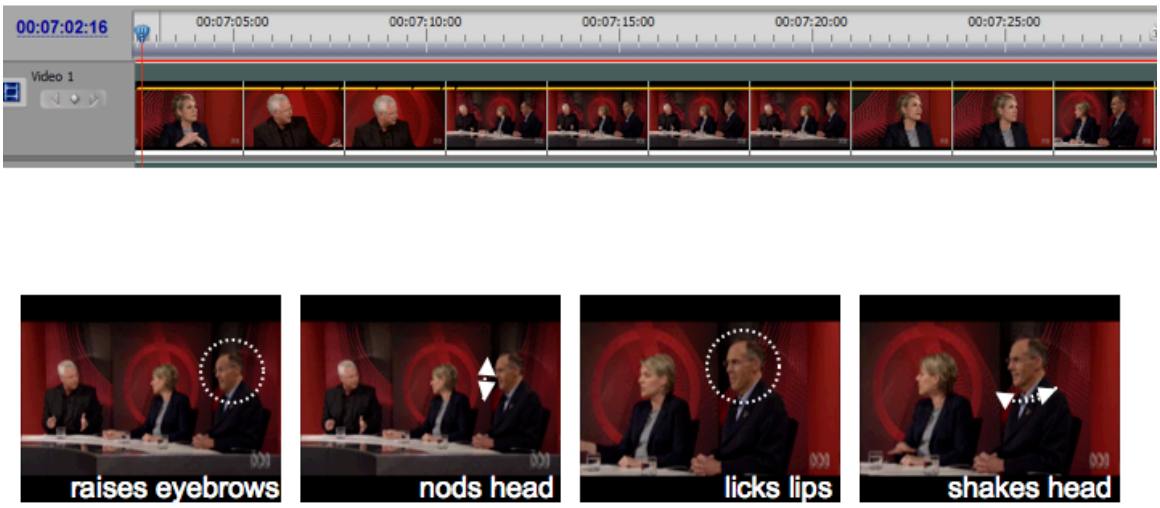

Figure 4 Camera: Visual Frame

Multimodal Analysis Video software[1] is used to code these multimodal choices in a slightly longer segment of the panel discussion, as displayed in Figure 5 (see O'Halloran, Tan and E (2017) and Jewitt et al. (2016, pp. 30-57) for a detailed description of the software functionalities). The horizontal strips contain time-stamped annotations for Phases, Sub-phases and Shots, and system choices for Gaze (Gaze Direction; Interpersonal Engagement;

Directionality), Kinetic Features (Body Posture; Gesture) and Cinematography (Camera – Horizontal Perspective; Vertical Angle; and Frame Size). The annotations are stored in a data base, enabling a dynamic visualisation of *the combinations of the multimodal choices*, as displayed in Figures 6a and 6b. This 'state-transition' diagram reveals that Tony Abbott's multimodal choices (in terms of tone, gaze direction, interpersonal engagement, directionality of engagement, posture, gesture and camera perspective) unfold in quite a distinct manner from those exchanges involving Tanya Plibersek (at the start of the video segment) and Tony Jones (when addressing a question to Warren Mundine in the final part of the video segment). Thus, it is possible to see how Tony Abbott uses multimodal choices to command and maintain attention as he directs criticism towards the Labor Party.

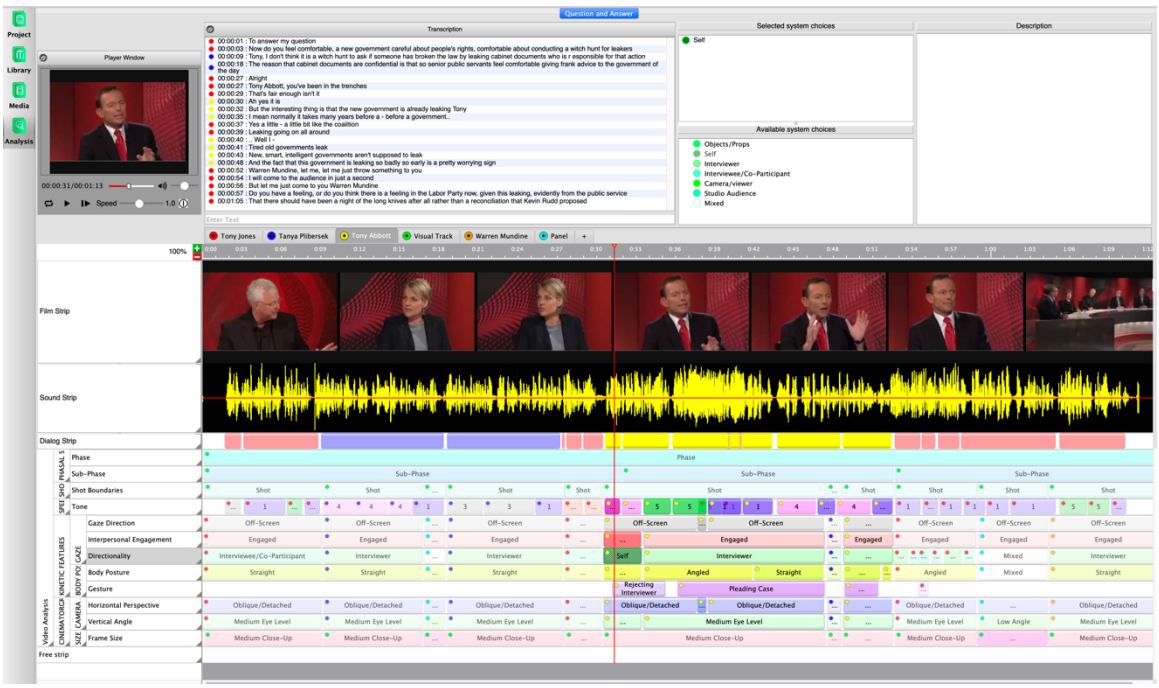

Figure 5 Multimodal Analysis of the Q&A Video Segment

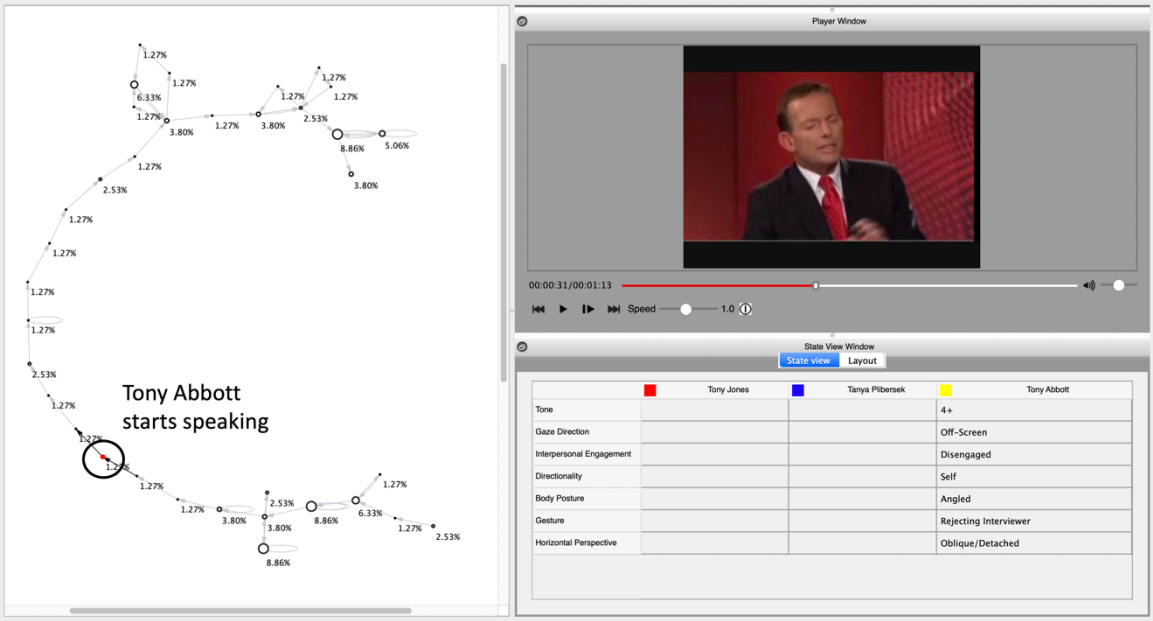

Figure 6a Tony Abbott: "Ah, yes it IS..."

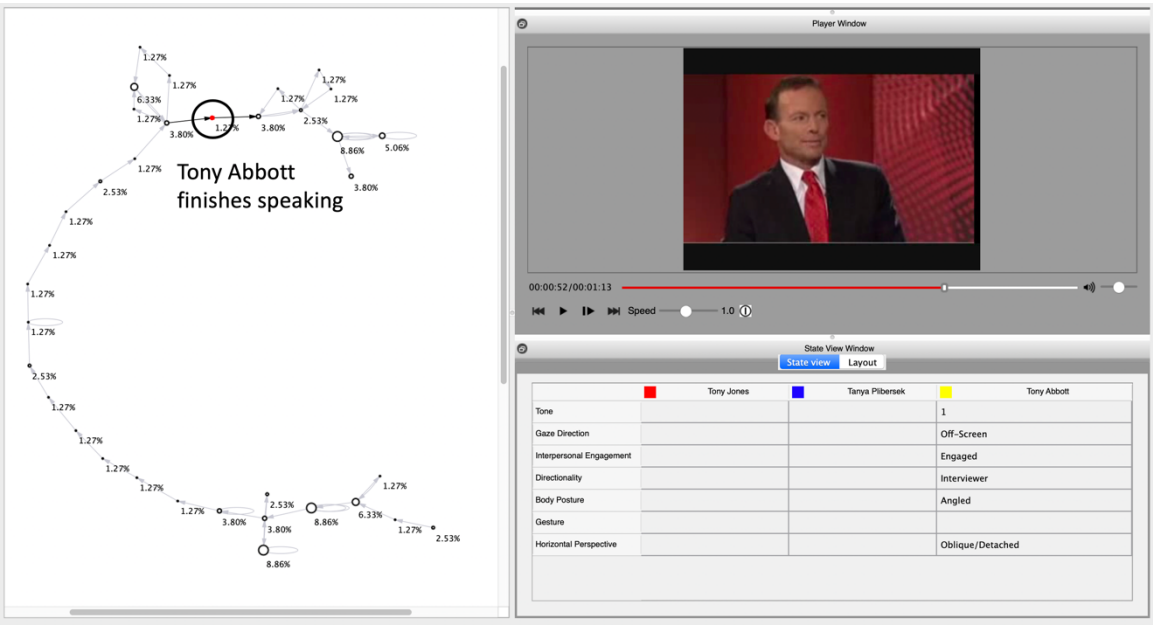

Figure 6b Tony Abbott: ".. is a pretty worrying sign"

The entire Q&A session itself is resemiotised on the Q&A website (Figure 7) where the notion of political debate as sport is evoked in the opening paragraph (“Tony, Tanya and Bob. Thursday, 29 May. Tony Abbott and Tanya Plibersek are back in the boxing ring for Q&A's second episode. Joining them are Bob Brown, Warren Mundine and Louise Adler for

their first grilling by the Q&A punters"). But the 'spectators' – the audience – are encouraged to participate, through interactive blog forums arrayed under each of the show's questions where website members may post comments ('Have your say'), another resemiotisation of the issues debated during the show (from expert to public opinion), as well as post questions for the show itself (including 'live' questions during the show). A mathematical chart post-show also gives some (limited) analytical information about the time devoted to the topics under discussion, and further down the website the panelists are introduced via photos and short writeups.

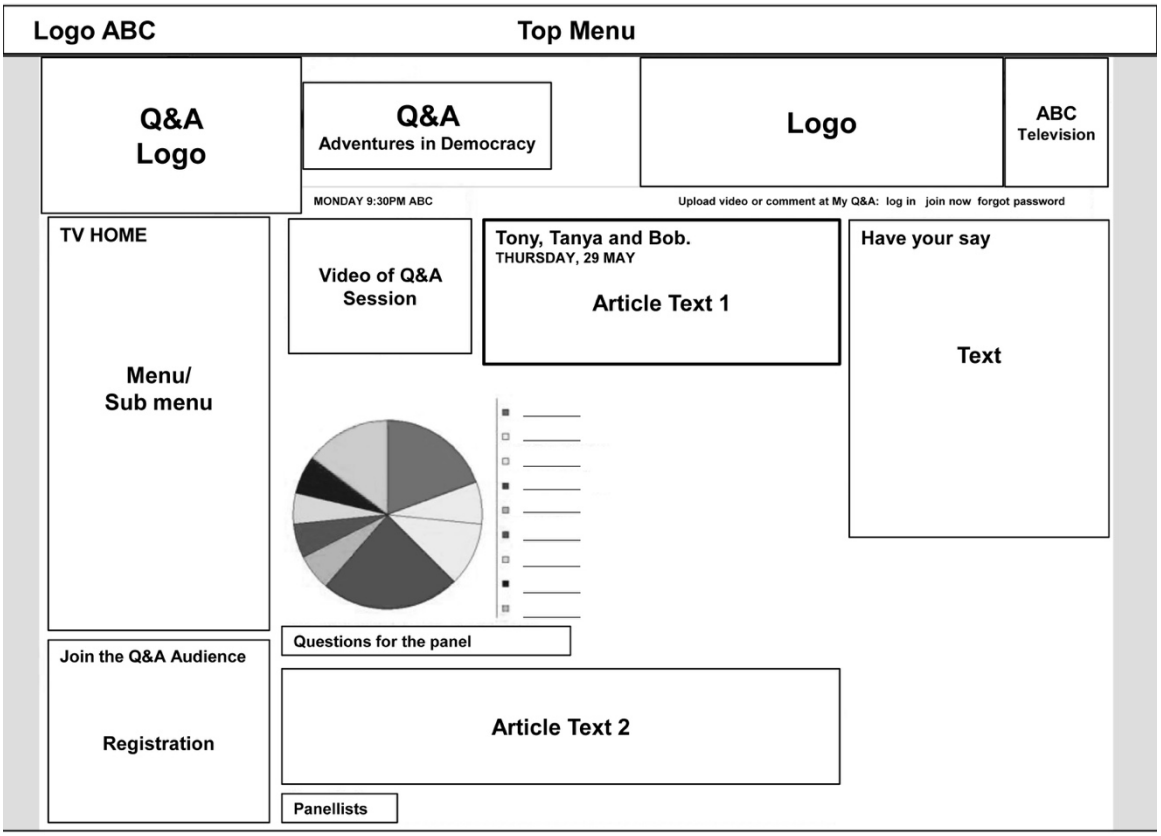

Figure 7 Q&A Website: Adventures in Democracy: 'Tony, Tanya and Bob'[2]

The above discussion shows clearly that context is an essential part of any analysis, not just the immediate context of situation (the Q&A event and subsequent resemiotisations of that

event), but the context of culture in general, including in this case the intertextual references which are made to the recent elections in Australia and its discourse, and to Australian democratic culture in general. MDA reveals how instances of multimodal semiotic choices function inter-semiotically in ways which ultimately create and answer to larger patterns of social context and culture.

New Directions in MDA

The major challenge to MDA is managing the detail and complexity involved in annotating, analysing, searching and retrieving multimodal semantic patterns within and across complex multimodal phenomena. The analyst must take into account intersemiotic and resemiotisation processes across disparate timescales and spatial locations. In addition, different media may require different theoretical approaches, for example, video and film analysis may draw upon insights from film studies and other fields (Bateman et al., 2017). MDA of online media give rise to added difficulties, given the complexity involved (i.e. text, images, videos, hyperlinks etc).

One method for managing the complexity involves the development of interactive digital media platforms specifically designed for MDA, such as the purpose-built multimodal analysis video software demonstrated above. The development of such software as a metasemiotic tool for multimodal analysis becomes itself a site for theorising about and developing MDA itself. Furthermore, recent research involves the development of multimodal approaches to big data analytics (e.g. O'Halloran, Tan, Pham, Bateman and Vande Moere, 2018; O'Halloran, Wignell and Tan, 2020; Pal, O'Halloran and Jin, 2020). In this case, the path forward must necessarily involve interdisciplinary collaboration if the larger goals of understanding patterns and trends in technologies, text, context and culture are to be achieved.

Key Readings

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1. http://multimodal-analysis.com/products/multimodal-analysis-video/index.html

2. http://www.abc.net.au/tv/qanda/txt/s2255680.htm

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