Cognitive Polyphasia, Themata and Blood Donation: Between or Within Representation[1]

GAIL MOLONEY
Southern Cross University

JUDITH WILLIAMS
Southern Cross University

DUNCAN BLAIR
Southern Cross University

Cognitive polyphasia has typically been understood through the notion of situated knowledge. This paper adds to this body of work by suggesting that the processes involved in representation, namely themata, be considered in concert with the content of the representation. We present research that investigated why so few people in Australia donate blood when most people agree that blood donation is a worthwhile, altruistic act. Using word association data we show that the representational field associated with blood donation has contradictory normative and functional meanings that are not delineated by donor status. We suggest that the thema of self/other gives rise to a heterogeneous field that manifests as polyphasic responses bound to the salience of the social context.

---

[1] The ideas in this paper were presented as a keynote at the London School of Economics, Institute of Social Psychology 12th Graduate Conference "The Self in Context - Social, Political and Historical Perspectives", June 3rd, 2011.
Moloney, Gail. (2011). Contradiction within representation or cognitive polyphasia. Should we care?. Invited keynote presentation. London School of Economics, Institute of Social Psychology, 12th Graduate Conference *The Self in Context - Social, Political and Historical Perspectives*, June 3rd, 2011.

Underpinning the concept of *cognitive polyphasia* is the proposition that different, and sometimes competing, modes of knowledge are drawn upon to make sense of the social world; leading to plurality, and polyphasic understandings of the same issue within the one community, group or individual. Often as a function of change, of past ways merging with the new, these different and frequently contradictory ways of thinking, meaning and practices are argued to co-exist because they are features of *situated knowledge.* That is, each mode of knowledge is linked to the context of its production, thus, inconsistencies are accommodated as each representation is argued to be locally consistent (Renedo & Jovchelovitch, 2007; Moscovici, 1961; Provencher, 2011; Wagner, Duveen, Themel & Verma, 1999). It is this latter assumption – that inconsistencies lie *between ways of thinking* rather than *within ways of thinking,* that is the focus of this paper.

In her elaboration of what *modes of knowledge* might be in relation to cognitive polyphasia, Provencher (2011) states that "*they* represent systemic wholes referring both to specific contents (i.e. fields of applicability) and conditions of truth" (p.5)[2]. Modes of knowledge may also be knowledge delineated by acculturation levels (Jovchelovitch & Gervais, 1999), traditional and modern beliefs and practices (Wagner et al., 2000); or different rationalities as in science or religion (Moscovici, 1961). It is the *differential use* of these modes to make sense of an issue that defines cognitive polyphasia.

The tenet that representations are not veridical reproductions of facts but elaborations that make sense for a group, in a particular context at a particular time explains the situated-ness of cognitive polyphasia. Without question, representations are inextricably bound to the social context of their elaboration (Wagner et al., 2000); however, being bound to the social context does not mean elaborations need or must be cohesive or consistent. The acceptability of contradiction or inconsistency is a separate issue dependent on one's point of reference. Positivism, for example, favours notions of linearity and predictability implying by default that contradiction in thinking must be associated with different representations. In contrast, Billig's (1991, 1993) rhetorical position argues that contradiction is central to social thinking and that the representation itself is the area of conflict (Billig, 1988).

---

[2] Provencher (2011) lists four other characteristics: they belong to an empirical reality, the cognitive systems will vary depending on the social framework considered, types of knowledge are themselves subject to mutual influence, and the constructivist nature of this knowledge is acknowledged.

Theoretically, the process of representation is inextricably linked to the content such that the contents need to be elucidated within the process and the process deduced from the contents (Marková, 2003; Moscovici, 1982). However, cognitive polyphasia has been exemplified primarily by content or, "how it is lived at the level of groups or communities" (Provencher, 2011, p.1). An analysis of content without attention to structure implies that cognitive polyphasia occurs between representations. Hence, we propose that one of the processes of representation, namely themata, be considered.

THEMATA

From a dialogical epistemology, antinomies are essential to human thinking, language and communication. Conceptualised interdependently, antinomies hold the potential to give structure to emergent social knowledge (Marková, 2003, p. 444):

> Thus while the idea of antinomies and/or polarities is an essential characteristic of dialogical movement, rather than being conceived as different guns in battles by different armies, to achieve their force, antinomies must be conceptualized as mutually interdependent. Taking the form of themata in the theory of social representations, this force is achieved.

What is crucial here is the interdependence between oppositional taxonomies. What is *edible* for example is always defined by what is *inedible*, *justice* by *injustice*, *life* by *death*, *dirty* by *clean*, *long* by *short*. One line of thought suggests that the tension between themata[3] [4] gives rise to pairs of representations, each representation having an alternative generated by the opposing antimony (Castro & Gnomes 2005; *cf* Moscovici, 2001). We suggest the generativity of a thema is not through each antinomy; rather it is through the tension created by their interdependence. The tension gives rise pragmatically, in a given cultural or historical context, to the symbolic image or figurative nuclei of the social representation (*cf* Liu, 2004; Moscovici, 2001).

---

[3] Castro & Gnomes (2005, p.7) refer here to themata as a pair of oppositional categories.
[4] We use themata as plural and thema as singular.

Themata facilitate the merging of old ideas with modern, past beliefs with present, the traditional with the new. As source ideas, they underpin emergent representations but do not necessarily manifest as such (Moscovici & Vignaux, 1994). Their generative power is in their thematisation as Marková (2003) demonstrated in her analysis of how morality/immorality were thematised as GRID (Gay Related Immune Syndrome) and then as AIDs (Auto Immune Deficiency), re-emerging pragmatically with the social context of the time.

It is in this sense that themata are argued here to underpin cognitive polyphasia. If, as Marková (2000) suggests, mutually interdependent taxonomies take the form of a thema in the generation of social representations, then plausibly it is the tension generated between the antinomies of a thema that creates the possibility of polyphasia. This tension creates a dynamic representation field, possibly dilemmatic, at times congruent, at times incongruent, sometimes fragmented and ambivalent; but through which presides a consensual reality that socially defines the issue (Rose, Efraim, Gervais, Joffe, Jovchelovitch & Morant, 1995, p.153; Moloney & Walker, 2002; Moloney, Hall & Walker, 2005). We argue that it is the contextual salience, at any one time, which elicits aspects of the representational field – binding meaning to specific social contexts, groups or events. Recent research in blood donation is drawn upon to articulate how contradiction might effectively define an issue rather than be an example of its situated use. That is, contradiction may be understood as being within representation rather than between representations.

CONTRADICTION IN BLOOD DONATION

The rationale for looking closely at how this issue is socially understood was simple: Australia's blood supply is drastically low. It is estimated that at least 30% of Australians will need to receive blood at some point in their lives (Reid & Wood, 2007), yet the entire blood supply in Australia is donated by only 3.5% of the population. These figures are further compounded by the fact that many people give blood only once; only 60% of first time donors return to make a

second donation. Moreover, as the population ages, the need for donated blood increases. Similar donation statistics are reported all over the world (Reid & Wood, 2007)[5].

Interestingly, most people hold very positive views about blood donation and regard it as vital and worthwhile (Godin, Sheeran, Conner & Germain, 2008). Yet for most people, this positive evaluation does not translate into blood donation behaviour, a juxtaposition often interpreted as *the paradox* of donation behaviour.

In questioning why this might be, we drew from prior research that suggests unequivocally that most people know and understand the need for blood donation despite the fact that only 3% of the population in Australia actually donate blood (Reid & Wood, 2007; Masser, White, Hyde, Terry & Robinson, 2009). Hence, we conceptualised blood donation as more than an individual's attitude, decision or behaviour; *rather* as a system of values, beliefs and practices (Moscovici, 1973, p. xiii), presupposing interactions among social phenomena and their constituents as the starting point (Marková, 2008).

Second, we questioned the implicit assumption of a linear relationship between a positive response expressed towards blood donation (*I think blood donation is a worthwhile and altruistic act*) and the act of donating blood (see Armitage & Conner, 2001). Research into blood donation behaviour has typically been within the theoretical framework of the Theory of Planned Behaviour (Ajzen, 1988), which is primarily a predictive model. By conceptualising blood donation as a representational system of interdependent, relational and dynamic values, ideas and practices about blood donation, there is no assumption that positive attitudes would track linearly to behaviour (Moloney et al., 2005).

We ran a series of word association tasks[6] in order to find the frames of reference that Donors, non-Donors and past Donors use to engage with this issue. From an initial pool of 2993 associations elicited from 258 respondents of all donor statuses, a surprisingly coherent, cohesive pattern of associations emerged[7]. Interestingly, irrespective of donor status, the pattern of responses was dominated by two elicitations: *helping* and *needles*.

---

[5] The United States has one of the highest blood donation rates in the world with *only* 8% of eligible donors donating blood.

[6] See authors for full description of methodology.

[7] Minimal homogenisation was employed. Plural and singular form, adverbs were grouped under the most frequently occurring verb or noun. For example, help, helpful were grouped under *helping*, pain, painful under *pain*, needle under *needles*.

Figure 1 gives a Frequency Magnitude Split Plot, showing the data plotted at random splits of 25[8]. Raw frequency was converted to frequency magnitude, a percentage figure that takes the axiomatic frequency count and relates it to the frequency value of the data set. The frequency magnitude measure allows meaningful comparisons to be drawn between responses in the same data set and between data sets (see Callaghan, Moloney & Blair, 2009 for full description and strengths of this measure).
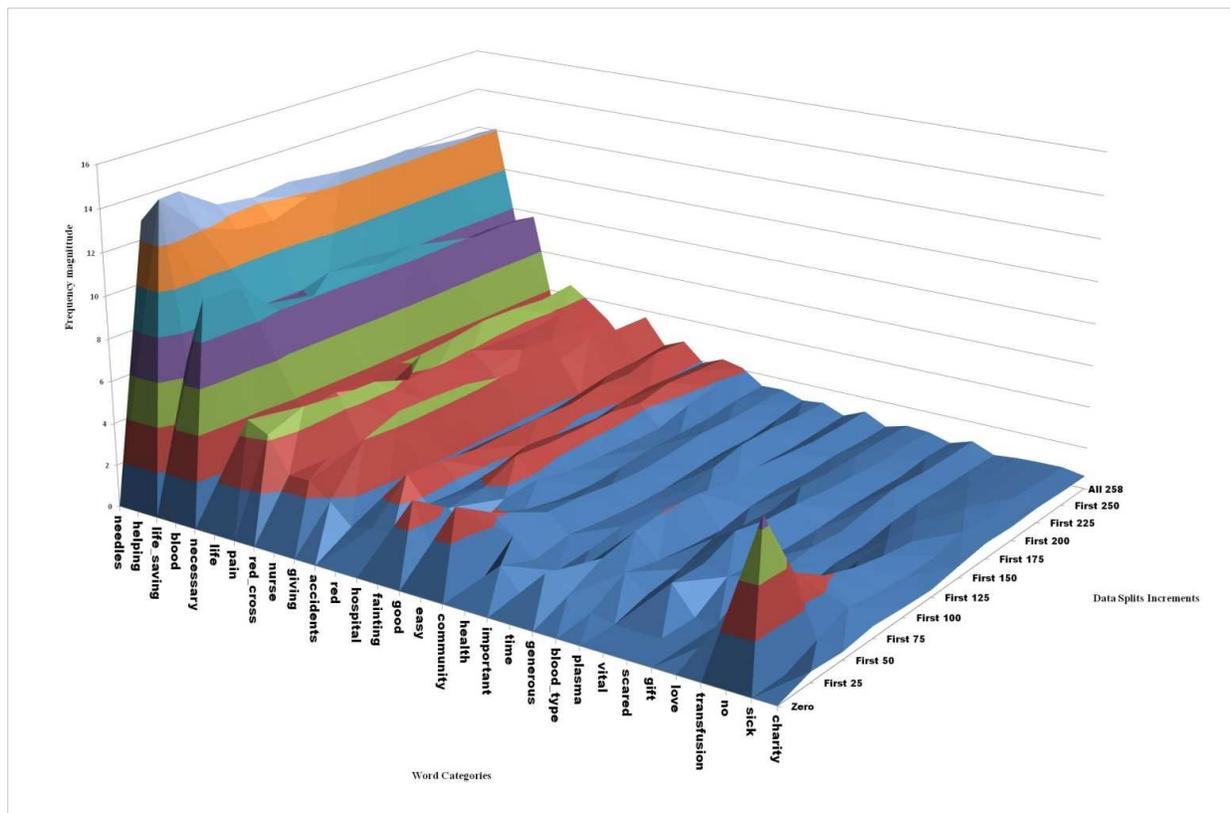

Figure 1. Frequency magnitude split plot of the elicitations from word association task *What springs to mind when you think of Blood Donation?*

What is noticeable from this plot (Figure 1) is the robustness of the data profile. At approximately the 175th split, the profile smooths and remains so until the last split. This suggests that the noise, or high frequency of idiosyncratic responses, shown at earlier splits (e.g. 25th) has levelled relative to the size of the data set. Moreover, were further data to be collected (using the same parameters), a similar pattern would be expected to occur.

---

[8] Random splits at every 25 respondents' elicitations.

Figure 2 shows the elicitations by frequency magnitude by donor status (blood donor, past donor and non donor), reiterating the dominance of *helping* and *needles* across all donor statuses.
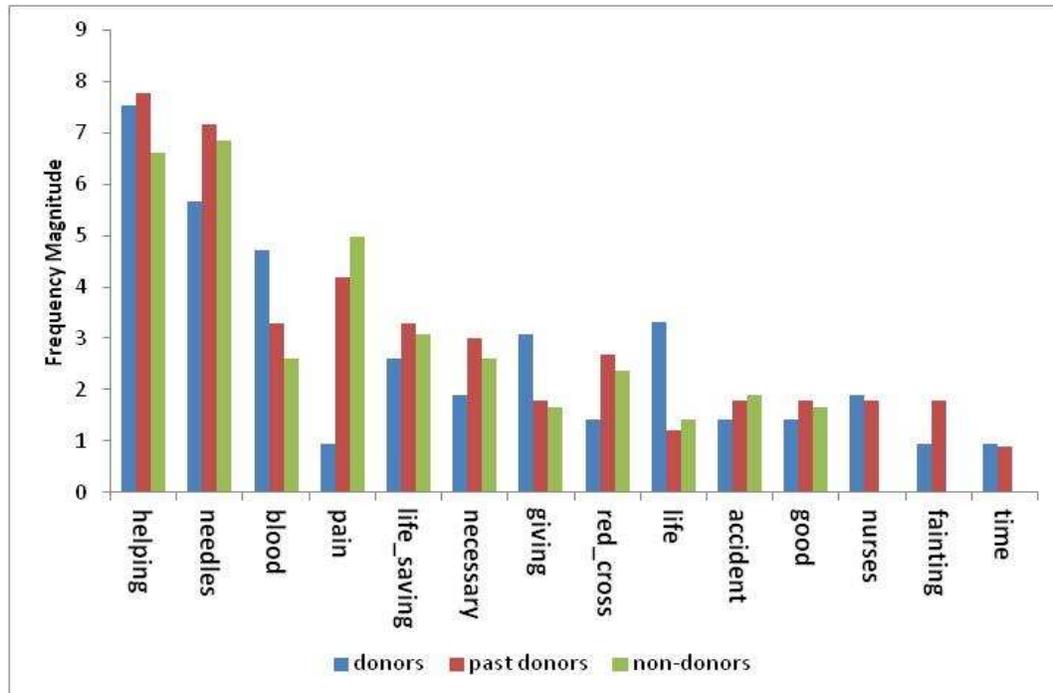

Figure 2. Frequency magnitude for elicitations by donor status.

Further analyses investigated the individual salience of the elicitations for each donor status by asking participants *the extent* to which each of the elicitations came to mind when they thought about blood donation. In line with Guimelli (1998), we found the responses correlated into three factors: normative, functional and descriptive[9]. Elicitations identified as normative were ideological, symbolic and intellectualised. Blood donation was a noble idea, a worthwhile, altruistic act that benefited humanity (such as *helping*, *life-saving*, *giving*). In contrast, elicitations identified as functional suggested the instrumental relationship individuals had with the social object and related to the act of donating blood (such as *needles*, *pain* and *fainting*).

We found the orientation of the dimensions was not exclusive to those who had identified as Donors or non-Donors; rather it was the *salience* of the normative and functional dimensions

---

[9] Principal Components Analysis (PCA) revealed three factors that we identified as normative, functional, and descriptive. Mean scale scores were then calculated for each donor status group. Descriptive elicitations were elicitations such as *hospital, nurses, accidents, red-cross*.

that manifested differentially. Both Donors and non-Donors associated normative and functional elicitations with blood donation. What was striking about these results was the seeming incongruity in affect between the two dimensions. The normative dimension was positively oriented whilst the functional dimension was negative in orientation[10]. Thus, the elicited understandings about blood donation were both positive and negative, and this dichotomy was not delineated by donor status.

We suggest that the contradictory affective elicitations *are* the representational field associated with blood donation: the socially-derived meanings of how this issue was understood, in this context, in this time and place. In addition, we propose that the thema of *self/other* underpins this representational field. As a dyadic relationship, the *self* takes meaning against the *other*. There is no imperative for the relationship between *self* and *other* to be linear. The functional dimension of the social understandings of blood donation concerns the *self* and manifest negatively in the context of blood donation as *needles, pain, fainting, etc.* – reflecting the processes involved in the donation of the blood. In contrast, the normative dimension concerns the *other* manifesting positively in the context of blood donation as *helping, life-saving, giving, etc*. These dimensions do *contradict* each other in the linear sense. However, if we regard the thema *self/other* as driving the representational field, setting the parameters for the content, then the contradiction is simply the expression of *self* in relation to blood donation against the *other*.

Possibly of more importance is how the tension between *self* and *other* manifests in the figurative nuclei[11] of the representational field and the dynamism this tension creates. In 2009, devastating bushfires caused significant injury and loss of life in Victoria, Australia. Five hundred houses were lost, hundreds of people were injured, and 230 people killed (Australian Broadcasting Corporation, 2009). The graphic and horrifying detail of the devastation wrought by these bush fires was streamed[12] into the living rooms of Australians as it happened. In the first week of the bushfires, the number of blood donations in Australia rose from the average of 21,000 donations per week to an unprecedented 40,000 in one week alone (Australian Red Cross Blood Service, 2009). Months later, the donation rate remained unusually high, with much of the

---

[10] However, this was not established empirically.
[11] Based on our results, we suggest the figurative nucleus is a contradictory image of needles and helping; helping, possibly, symbolised as the giving of blood. This is an area worthy of future research.
[12] Via TV, internet, radio and newspapers.

donated blood coming from first time donors (The Australian Red Cross, Personal communication, March 31, 2009).

We argue that the representational field of blood donation didn't change in that week as a consequence of the bushfires; rather, the dynamic interdependence of process and content reflected the Australian public's concern with the *other* over the *self*. We surmise that the salience of the normative dimension increased, driving many first time donors to put aside the negative affect associated with the act of donation. We suggest that aspects of the heterogeneous representation field of conflicting ideas, values and beliefs about blood donation is differentially accessed depending on the salience of the context at the time.

CONCLUSION

We have argued in this paper that any discussion of cognitive polyphasia should be mindful of the inextricable relationship between the process and content of representation, between structure and meaning. The concept of themata, and the ensuing tension created by oppositional antinomies, underpins the dynamic coexistence of often contradictory understandings of the one issue, manifesting as cognitive polyphasic responses bound to the salience of the social context in which they are elicited. By proposing that themata be considered in relation to cognitive polyphasia, we hope to add to the notion of dynamic coexistence of different modalities of knowledge (Moscovici, 1961) by suggesting that contradiction occurs not only between but *within* representations.

REFERENCES

Ajzen, I. (1988). *Attitudes, personality and behavior*. Milton Keynes, UK: Open University Press.

Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behavior: A meta-analytic review. *British Journal of Social Psychology, 40*, 471-499.

Australian Broadcasting Corporation (2009). Retrieved from http://www.abc.net.au/news/2009-02-08/australias-worst-bushfire-disaster/288362 (03/2009).

Australian Red Cross Blood Service (2009). *Victorian bushfires: Bushfire update*. Retrieved from http://www.donateblood.com.au/page.aspx?IDDataTreeMenu=290&parent=32 (4/03/2009).

Billig, M. (1988). Social Representation, anchoring and objectification: A rhetorical analysis. *Social Behaviour, 3*, 1-16.

Billig, M. (1991). *Ideology and opinions: Studies in rhetorical psychology*. London: Sage.

Billig, M. (1993). Studying the thinking society: Social representations, rhetoric, and attitudes. In G. M. Breakwell, & D. V. Canter (Eds.), *Empirical approaches to social representations* (pp. 39-62). Oxford: Clarendon Press.

Callaghan, P., Moloney, G., & Blair, B. (2012). Contagion in the representational field of water-recycling: Informing new environment practice through social representation theory. *Journal of Community and Applied Social Psychology*, *22*, 20-37.

Castro, P., & Gnomes, I. (2005). Genetically modified organisms in the Portuguese press: Thematization and anchoring. *Journal for the Theory of Social Behaviour, 35*(1), 1-17.

Godin, G., Sheeran, P., Conner, M., & Germain, M. (2008). Asking questions changes behaviour: Mere measurement effects on frequency of blood donation. *Health Psychology, 27*, 179-184.

Guimelli, C. (1998). Differentiation between the central core elements of social representations: Normative vs. functional elements. *Swiss Journal of Psychology, 57*, 209-224.

Jovchelovitch, S., & Gervais, M. C. (1999). Social representations of health and illness: The Case of the Chinese community in England. *Journal of Community & Applied Social Psychology, 9*, 247-260.

Liu, L. (2004). Sensitising concept, themata and shareness: A dialogue perspective of social representations. *Journal for the Theory of Social Behaviour, 34*, 249-264.

Marková, I. (2000). Amédée or how to get rid of it: Social representations from a dialogical perspective. *Culture and Psychology, 6*, 419-460.

Marková, I. (2003). *Dialogicality and social representations. The dynamics of mind*. Cambridge: Cambridge University Press.

Marková, I. (2008). The epistemological significance of the theory of social representations. *Journal for the Theory of Social Behaviour, 38*, 461-487.

Masser, B., White, K., Hyde, M., Terry, D., & Robinson, N. (2009). Predicting intentions to donate blood among nondonors in Australian: An extended theory of planned behavior. *Transfusion, 49*, 320-329.

Moloney, G., & Walker, I. (2002). Talking about transplants: Social representations and the dialectical, dilemmatic nature of organ donation and transplantation. *British Journal of Social Psychology, 41*, 299 – 320.

Moloney, G., Hall, R., & Walker, I. (2005). Social representations and themata: The construction and functioning of social knowledge about donation and transplantation. *British Journal of Social Psychology, 44*, 415-44.

Moscovici, S. (1961). *La psychoanalyse, son image et son public*. Paris: Presses Universitaires de France.

Moscovici, S. (1973). Foreword. In C. Herzlich (Ed.), *Health and illness*. London: Academic Press.

Moscovici, S. (1982). The coming era of representations. In J. P. Codol and J. P. Leyens (Eds.), *Cognitive analysis of social behavior* (pp. 115-147). The Hague: Martinus Nijhoff.

Moscovici, S., & Vignaux, G. (1994). Le concept de themata. In C. Guimelli (Ed.), *Structures et transformations des representations sociales* (pp. 25-72). Neuchatel: Delachaux et Niestle.

Moscovici, S. (2001). Why a theory of social representations? In K. Deaux & G. Philogene (Eds.), *Representations of the social* (pp. 8-36). Malden, Massachusetts: Blackwell.

Provencher, P. (2011). Towards a better understanding of cognitive polyphasia. *Journal for the theory of social behaviour, 41*, 377-395.

Reid, M., & Wood, A. (2007). An investigation into blood donation intentions among non-donors. *International Journal of Nonprofit and Voluntary Sector Marketing, 13*, 31-43.

Renedo, A., & Jovchelovitch, S. (2007). Expert knowledge, cognitive polyphasia and health; A study on social representations of homelessness among professionals working in the voluntary sector in London. *Journal of Health Psychology, 12*, 779 - 790.

Rose, D., Efraim, D., Gervais, M.-C., Joffe, H., Jovchelovitch, S., & Morant, N. (1995). Questioning consensus in social representations theory. *Papers on Social Representations, 4,* 150-155.

Wagner, W., Duveen, G., Themel, M., & Verma, J. (1999). The modernization of tradition: Thinking about madness in Patna, India. *Culture and Psychology, 5*, 413-445.

Wagner, W., Duveen, G., Verma, J., & Themel, M. (2000). 'I Have Some Faith and at the Same Time I Don't Believe' - Cognitive Polyphasia and Cultural Change in India. *Journal of Community and Applied Social Psychology, 10*, 301-314.

GAIL MOLONEY is a Senior Lecturer in Psychology at Southern Cross University, Coffs Harbour, Australia. Her research interests are in the theoretical articulation of social representations theory and social identity in relation to diffused social issues such as blood donation, organ donation and transplantation, community and the resettlement of refugees, and climate change. ADDRESS: Psychology, School of Health and Human Sciences, Coffs Harbour Campus, Southern Cross University, NSW 2450, Australia. Email: gail.moloney@scu.edu.au

JUDITH WILLIAMS completed her undergraduate studies in psychology at Southern Cross University. Her Honours thesis investigated the social representation of blood donation in relation to donor status. She has since completed a Masters of Clinical Psychology and now works in private practice.

DUNCAN BLAIR is a Technical Officer for the School of Health and Human Science at Southern Cross University, Coffs Harbour, NSW, Australia. He spends his time building tools and processing data for Psychology research and the various enterprise systems. His research interests are in Social Simulation and Modelling, Emergent Systems, and Serious Games.