

Denise Dillon

## THE VALUE OF MEANING AND THE MEANINGS OF VALUE

**Scientific controversies constantly resolve themselves into differences about the meaning of words.<sup>1</sup>**

The coastal city of Cairns sits roughly at the midpoint of the Australian Wet Tropics World Heritage bioregion, which extends from Paluma in the south to Cooktown in the north. The inclusion of the Wet Tropics of Queensland World Heritage Area (WTQWHA) on the United Nations Educational, Scientific and Cultural Organisation's list of sites worth protecting for their natural or cultural heritage is based on the fulfilment of at least one of four criteria. So rich in natural heritage is this region that it fulfils all four of the criteria.<sup>2</sup> It is outstanding for its geological, ecological and biological processes. It is rich in natural phenomena and areas of exceptional beauty. It contains habitats that are important and significant for the conservation of biological diversity. It houses threatened species of outstanding value to science and conservation.<sup>3</sup> These *World Heritage Values* are much lauded for their tourism potential as well as for economic benefits to the communities situated within the region. Scientists devote research time and money to their search for furthering understanding of the area's diversity. Environmental management agencies use some of the information garnered from this research to better protect and conserve the area's bounty. Conservation advocacy groups work with and against government agencies in their own efforts to protect, and to advance public awareness of, the environment. The importance of protecting the values, however, is sometimes subsumed under confusion about what the values really are. What, indeed, does the expression *values* mean?

In the great tradition of Wittgenstein<sup>4</sup> and Humpty Dumpty,<sup>5</sup> words mean whatever we intend that they mean in using them. Words by themselves, as combinations of letters, are intrinsically meaningless: Meaning is imbued in a word by its use. Language is a ubiquitous activity, pervasive across all levels of social communication. It is in its use as a social activity that language imbues the world with meaning. In accepting such a statement as true it is not necessary that one totally reject as true the alternative assertion, that the mind shapes reality, and its obverse, that objects shape thought. There is interplay between language, thought and experience.

The interconnectivity between language and the object world is, for many of us, just another abstract idea of no directly personal or pragmatic import. It

is something that sounds interesting when heard in passing, without being reflected on at any great length or depth. For some, however, it holds more than a passing interest. When we regard language as rhetoric, and consider the implications and effects of its use in any form of advocacy, it begins to hold more import that information conveyed via language retains its credibility.

There is increasing concern regarding the danger of language being used merely to induce emotive reactions, with the discourse of environmentalism<sup>6</sup> offered as an example. Other concerns involve the "decay" of public language to the extent that words are not chosen or used with any great care or are, conversely, carefully chosen only to influence,<sup>7</sup> Whether they be used to push political or managerial ideologies or for conservation advocacy, "catchwords" or "buzzwords" become part of everyday discourse with the inherent danger that such terms come to be thought of as poorly defined and inconsequential.<sup>8</sup> Examples of some current buzzwords in the environmental domain include the increasing use of the expressions *World Heritage Values*, and *values* in general, along with *sustainability* and *biodiversity*. There are further concerns that the discourse of environmentalism (Greenspeak) might, in effect, take over from action.<sup>9</sup> Everyone will rapidly learn how to "talk the talk," with talk becoming ersatz involvement. As once-ambiguous issues become commonplace via the use of terms that enter everyday language, the issues become, in turn, commonplace and thus less visible.<sup>10</sup> Of course it was Locke's<sup>11</sup> contention that commonplace words emerge from commonplace ideas.

Specialised language, in any case, becomes routine and is imbued with the everyday understanding of public (as opposed to scientific) knowledge. This increases the potential for people to assume that others will think and respond in the same way as they do. In the management of public lands (including much of the WTQWHA) and in the dissemination of scientific research to management agencies and conservation advocacy groups, it is important that public understanding equate with the understanding of the managers, scientists and those who advocate (often on behalf of the public).<sup>12</sup> It is equally important that scientists of different disciplines, when working in cohort, understand each other.

**Scientists must attend closely to the meanings of the words they use and make certain that these meanings are shared by other scientists.**<sup>13</sup>

Ordinary or natural language is essential to effective communicative practice if social behaviour is to be maintained and mutually understood.<sup>14</sup> Often, the language used by scientists is neither ordinary nor natural, but necessarily consists of discipline-specific jargon. Research, however, is demanding of

communication. This is especially so for the dissemination of research findings to the public (as everyday language-users) but it is also vital for research that is inter-disciplinary or collaborative. Loose and ill-defined meanings for any discipline-specific terminology are detrimental to effective communication.

Efforts are made to make such terminology transparent across disciplines, by making language both descriptive and proscriptive. That is, research scientists, managers and policy-makers tell us what is and what ought to be. Scientists use specific terminology to describe environmental conditions, policy-makers target management goals, and managers target and evaluate outcomes.<sup>15</sup> The public rely on such terminology to form and discuss expectations and evaluations of science as it is filtered down into social knowledge.<sup>16</sup> Additionally, community beliefs and assumptions can also influence scientific reasoning and research programs, depending on social interaction dynamics.<sup>17</sup>

Methodology and measurement also suffer from loose definition, lack of standardisation and disciplinary specialisations, which can lead to slippage or overlap of meanings. All such aspects of ambiguity can affect the dissemination of information within the environmental research and management fields, and there is a flow-on effect on the communication of such information to the public. Interdisciplinary partnerships are also influenced by this dynamic of ambiguity, as research partnerships between the environmental and social science fields bring together discipline-specific terminologies with divergent meanings.

Changing agendas influence the development of concepts and understandings, and there is always potential for any term to be embedded with individual values (as beliefs and attitudes in the general social science sense of values).<sup>18</sup> This is of particular relevance when decisions about environmental management must be made: policy and management goals might be influenced by competing agendas if value-embedded terms are used to describe ecological conditions.<sup>19</sup>

**The meaning of a word is determined entirely by its context. In fact, there are as many meanings of a word as there are contexts of its usage.**<sup>20</sup>

Watson<sup>21</sup> documented what he considered to be the decay of public language; words must not only be necessary but they must also be usefully categorised, easily attached to an influx of new words, or alternatively adapted to take on the meanings of obsolete words. These concerns reiterate Empson's observations in his *Seven Types of Ambiguity*:

The preface to *Oxford Poetry, 1927*, stated an opposition very clearly; that there is a "logical conflict, between the denotary and the connotatory sense of words;

between, that is to say, an asceticism tending to kill language by stripping words of all association and a hedonism tending to kill language by dissipating their sense under a multiplicity of associations.<sup>22</sup>

In the natural evolution of language alternative terms and expressions have consistently emerged due to the perceived need for new terms to describe phenomena. Conversely, existing terminology can take on new meaning. It is this aspect of the changing nature of language that Harré, Brockmeier and Mühlhäusler<sup>23</sup> deemed to be weakening the rhetoric of environmental discourse. Harré *et al.*<sup>24</sup> documented many instances and examples where inferior substitutions have been made so that the innovative or "buzz language" of the moment rapidly becomes commonplace, or *Greenspeak*. As a globalised view on environmental issues, Greenspeak involves the cultural and historical creation of meanings, but has yet to become unified.<sup>25</sup>

Watson<sup>26</sup> decried the misuse of language as a whole, with an emphasis on the rhetoric of marketing and politics. His concerns are also relevant to the communication of scientific ideas between managers, activists and the public. To make a case in point, the expression *World Heritage Values* has entered into the everyday discourse of World Heritage Area management agency personnel and visitors alike. In a process of interview, survey, naturalistic observation and documentary assessment, Bentrupperbäumer and Reser<sup>27</sup> examined whether current understandings of the expression varied across and within management agency personnel and visitor groups within the WTQWHA. Some respondents were uncertain of the meaning of the expression, but others claimed it referred, variously, to practices, to physical entities, to descriptive or societal domains, to ecosystem properties, processes or dynamics, or to authority, ownership or control.<sup>28</sup> In another study, where the context in which the expression was being used was held constant, consistency between the intended and the received meaning was not always evident.<sup>29</sup>

In any instance where shared terminologies produce an overlap of meaning, uncertainty stems not solely from lexical or dictionary meaning but has roots in the fundamental nature of language and thought. Cognitive schemas developed to explain and organise individual experiences must be flexible enough to incorporate the changes in experience over time and situations.<sup>30</sup> Terminological use is dependent upon the nature of context, so that specific terms might be modulated or interpreted for a naïve or less-specialist audience. For instance, a description of *World Heritage Values*, or even just *values* in general, might not be deemed necessary in a communicative context where researchers share information within a discipline. However, to communicate the same information to a researcher from a different discipline, or to members of the public, a comprehensive interpretation might be considered not only

appropriate but also necessary. Indeed, it is not clear that scientists within the one discipline will always use the same terminology with the same intended meaning. Nadel, a social anthropologist, expressed his grievance against the shortcomings of scientific language:

Even sciences more mature and more rigorous than ours have not fully unified their vocabulary. Nor can diversity and arbitrariness of usage be avoided entirely. In some ways, and at some stage of our enquiries, we all act like Humpty Dumpty and make words mean what we like.<sup>31</sup>

Francis Bacon, in one of his proposals for the radical reform of knowledge, strongly urged the use of a plainly unambiguous prose style for the purposes of scientific communication. He decried the existence of words as arbitrary marks, denoting various actions, which cannot be confined to any permanent meaning.<sup>31</sup> This idea also resurfaced with Empson.

The sciences might be expected to diminish the ambiguity of the language, both because of their tradition of clarity and because much of their jargon has, if not only one meaning, at any rate only one setting and point of view. But such words are not in general use; they only act as a further disturbing influence on the words used already. English is becoming an aggregate of vocabularies only loosely in connection with one another, which yet have many words in common, so that there is much danger of accidental ambiguity, and you have to bear firmly in mind the small clique for whom the author is writing. It is to combat this that so much recent writing has been determinedly unintelligible from any but the precise point of view intended.<sup>33</sup>

Empson's confidence in the clarity of scientific discourse is a heartening contrast to some of the concerns being voiced by others, and offers the hindsight that the problem of misunderstanding has always existed. That the problem is both longstanding and current is perhaps indicative of how difficult it is to overcome the challenge of making meaning universally clear. Alternatively, recognition of the problem could simply be the first step towards acceptance of ambiguity, in the negative capability described by Keats.<sup>34</sup> Whatever the reason, there is scope for further study into the uses of meaning and, more deeply, into the essence of meaning.

**But words plainly force and overrule the understanding, and throw all into confusion, and lead men away into numberless empty controversies and idle fancies."<sup>35</sup>**

Two separate issues of interest emerge from the potential for confusion and misunderstanding due to ambiguity; the first issue is the diversity in representation of the term values (as an identified buzzword), the second

issue is of the measurement and representation of meaning. The diversity of ways in which values is used is relatively easy to document. Content analysis of documents produced by the various groups for whom environmental and cultural values are an issue, together with documents intended for the public, can show any differences in use and meaning between and within the various groups. The second issue, that of the measurement and representation of meaning, is the more intriguing problem. It is not clear that meaning can be measured empirically, and the matter of showing how meanings are represented is nebulous. Lexical word meanings can certainly be shown in dictionary form, but dictionaries are rarely referred to for everyday use. Semantic, or relational, meanings can be plotted in a two- or three-dimensional "semantic space" according to levels of semantic relatedness among a group of words. While the semantic system has been widely and advantageously used to explicate and disambiguate constructs, when the system is linked to public meaning and social (or collective) representation it is, conversely, both orderly and ambiguous.<sup>36</sup> Connections made between newly assimilated words and existing words within the semantic system depend to some extent upon an individual's knowledge and experience of the world.

According to social representation theory, semantic mappings could reasonably be expected to be similar for specified groups. Social representations consist of knowledge and beliefs that are central to a culture or community and are socially shared.<sup>37</sup> A culture or a community can extend to any cohesive human grouping. For instance, social representations might be found to exist among members of a scientific discipline, a community group of volunteers, or in a working environment. Regardless of the group configuration or size, the social-constructionist viewpoint attends to the idea that meanings are constructed via the communicative process, which regulates order for the world of the concrete as well as for the world of the abstract.

According to social representations theory, the meaning of *values*, for example, might be predicted according to predominant association with one social group. Using maps of semantic space, meanings used by research scientists in one discipline could be differentiated from meanings used by scientists from a different discipline. Similarly, meanings used by management group personnel and those used by conservation advocates might also be predicted using such a method. This is the orderly nature of connections. Ambiguity lies in the potential for group overlap. There is no clear delineation to preclude a research scientist from also working for a management agency, or from being an environmental or conservation advocate. Similarly, management agency personnel might choose to belong to conservation groups, in which members of the public also participate. It could be fairly expected that social representations formed in such circumstances might possibly devolve into a generic, everyday understanding of the term for all parties.

There is certainly cause to wonder, at least, if verification of social representations in this manner was not what Moscovici intended. One of the leading proponents of the psychological theory of social representations, Moscovici's assertion that "understanding consists of information processing"<sup>38</sup> parallels the cognitive science metaphor of information processing. The metaphor of mind as a network of nodes is reminiscent of the brain's neural network. Connections between the nodes are either enhanced or suppressed according to the type of activity required of the nodes, and often-used connections come to form a semantic network. Meaning can be plotted according to these semantic networks, with stronger (and faster) connectivity between those nodes representing words most closely related in meaning.

In contrast to cognitivist-inspired research, with its emphasis on quantitative evidence, social representation research is generally qualitative.<sup>39</sup> This is understandable given the difficulties inherent in specifying any representative sample of collective thought. The social representation alternative to relying on empirical evidence is to consider those everyday theories, ideas and beliefs of a collective nature.<sup>40</sup> An example of this type of research is that of environmental discourse analysis, which shows strong indications that the environment is constructed through social discursive interactions.<sup>41</sup> This occurs at various levels and within various contexts. During the course of conversational interaction, common-sense environmental categories are created and recreated.<sup>42</sup> Social constructivist notions go against the ideology once so favoured by proponents of purely empirical research.

**I do believe, Though I have found them not, that there may be Words which are things<sup>43</sup>**

Followers of logical positivism base truth assertions either on sensory data or on the grounds of literal word meaning and adherence to grammatical structure. It is the positivist implication that the object world determines what is rational, with language merely representing the reality that lies in the physical world. Relativism, on the other hand, is a top-down process whereby the cognitive system is applied to understanding the world, and language is an expression of internalised, mental reality. In choosing language as the formative factor one encompasses those other factors upon which language is structured. The essence of relativism is the interdependence of language, perception and knowledge. From this perspective the nature of meaning can differ from one word (and one person) to another. For instance, in a cultural context as noted by Davidson (a scientist with the CSIRO) "different cultures give different values and meaning to the biological reality that is the tropical rainforest in terms of their pre-existing ideas about it — what is good or bad, useful or useless, beautiful or ugly, safe or dangerous."<sup>44</sup> The world sometimes means, in Humpty Dumpty fashion,

whatever people choose it to mean. People make reference to reality according to prior knowledge and experience, which is often gained through language.

Referential adequacy is determined as the potential in a language for discussions of any topic in sufficient detail. This includes instances of metaphorical reference, whereby a term or expression (such as values) might be used to indicate something quite different from its literal, or object, referent.<sup>45</sup> Indeed, this is one of the problems of the referential theory of meaning, whereby it is supposed that objects shape thought. Firstly, there are some words with no apparent referent: abstract words (e.g. liberty, justice, value), for instance, have no physical referent.<sup>46</sup> Different people in diverse circumstances might use such abstract words to indicate a range of dissimilar ideas. Secondly, many referents relate to different words, and these often have different meanings. For instance, "unlogged woodland," "virgin jungle" and "pristine rainforest" might refer to the same physical environment, but the meanings attached to each expression can vary, as Davidson suggested. The third shortcoming of the referential theory is that one word, or symbol, can be applied to many referents. For example, the word tree can apply to a specific visual referent, a group of plants within a certain category of plants, or a wholly imaginary object, unseen and existing only within one's mind. Examples of such imagery include the "Tree of Knowledge" or a "family tree."

To return to the relativist argument, cognitive and social factors unite, through language, in the construction of the human world and experience. This idea of the world as socially constructed comes across in such phenomena as social representations,<sup>47</sup> but belief in the interconnectedness of various factors in the construction of meaning is not unique to social psychology. Deese,<sup>48</sup> interested in the cognitive principles of semantic organisation, also discussed the concept of meaning as a relationship between arbitrary symbols, human experience and human cognition. This interaction between language, ideas and perceived objects and events, while not always direct, is nevertheless orderly. Moscovici<sup>49</sup> explained that social representations imbue the world with a social, collective orderliness through the reduction of ambiguity. Social representations work by increasing our familiarity with anything strange and thus serve to resolve doubts and uncertainties. As a communicating group, members come to a consensus about anything that appears to them as ambiguous or vague. If Moscovici and other proponents of social representation are correct, social group membership determines the development of social knowledge, and this socially embedded knowledge is communicated according to what is already known, together with new knowledge that is anchored within a networked structure.<sup>50</sup>

The representations acquired along with this knowledge are implicit, in that they are shared among a large number of persons without their awareness.<sup>51</sup>The

process occurs with neither the group's explicit knowledge, nor by any conscious decisions.<sup>51</sup> The shared representations are also changeable, in that they are passed between generations and are adapted to changes in context. It is in the course of conversations among group members, wherein the exchange of ideas is implicit, that language as a lynchpin holds the collective meanings together. Thus, it is commonly accessed linguistic expressions that enable the construction of such meanings.<sup>52</sup>

The English poet Coleridge seems to have intuitively grasped the directional flow of the individual-to-collective interchange of language [*italics added*] as proposed by social representation theorists.

Every man's language varies, according to the extent of his knowledge, the activity of his faculties, and the depth or quickness of his feelings. Every man's language has, first, its *individualities*; secondly, the common properties of the *class* to which he belongs; and thirdly, words and phrases of *universal* use.<sup>53</sup>

Durkheim,<sup>54</sup> in discussing the collective (as opposed to individual) formation of ideas, included the role of language in defining and explaining how such representations work. He emphasised the importance of investigating these social representations via studies of language, together with mythical themes, legends and popular traditions.<sup>55</sup> Studies of language appear even more critical in light of Moscovici's description of social representations as "...a 'network' of ideas, metaphors and images, more or less loosely tied together..."<sup>56</sup> While Nietzsche also argued that linguistic rules play a role in the foundation of truth, he questioned the notion of language as an "adequate expression of all realities,"<sup>58</sup> suggesting instead that language is a collection of metaphors that do not correlate with objective reality. Are metaphors, then, representative of a collective attempt to reduce the ambiguities of the physical world? The psychological processes by which metaphors are understood have proved notoriously difficult to fathom, and it is not within the scope of this essay to address such a question.

**What is time, then? If no one asks me I know what it is. If I wish to explain it to him who asks, I do not know."**<sup>59</sup>

Ideas have proved similarly problematic as a target of study. There are those who consider that the essence of meaning is held within ideas. The difficulties experienced with explaining abstract concepts in words (vide Saint Augustine's problem explaining time) gives credence to the notion that some concepts are held as ideas more than as language. Locke's contention that "Words become general by being made the signs of general Ideas"<sup>60</sup> has a contemporary echo

in Davis's statements that "Meaning consists in the expression of ideas" and "meaning is determined by the idea expressed."<sup>61</sup> This takes us full circle back to Wittgenstein because ideas, after all, are often expressed linguistically, even if unclearly. It is in their expression, made possible by the interaction of language, thought and experience, that ideas assume communicable form and meaning. The measurement of such interactions makes for a challenging psycholinguistic study. While lexicographers provide individual word meanings they cannot, and do not attempt to, offer insights into the affective processes that generate lexical meanings. Psycholinguistic studies, as a combination of linguistics and psychology, provide the means of exploring the behavioural and affective processes that accompany lexical word meanings. Social representation networks of thought, language and perception, if captured as semantic mappings, can be usefully employed to record (and potentially to predict) meaning according to social group membership.

The confusion surrounding the multiple meanings of the term *values* within the environmental science field is a microcosm of the larger meaning issue. It nevertheless affords a small window of insight into the processes by which inchoate meaning develops and transforms through the act of transference. While natural and cultural heritage issues continue to be discussed among the various stakeholders for whom such issues are important, there is scope for further transformations of the discourse and rhetoric being used. Engenderment of understanding between stakeholder groups, through the disambiguation of at least one term, might mean a strike against those controversial differences regarding the meaning of words.

## Endnotes

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3. *Ibid.*
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31. S.F. Nadel, *The foundations of social anthropology* (London: Cohen & West, 1951) vi.

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33. William Empson, *Seven types of ambiguity*.
34. "... that is, when a man is capable of being in uncertainties, mysteries, doubts, without any irritable reaching after fact and reason." John Keats, *The Letters of John Keats*, ed. Maurice Buxton Forman (London: Oxford University Press, 1947, 3<sup>rd</sup> ed.) 72.
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