Editorial

Why the human sciences need the linguist

Jonathan J. Webster

*Facile credo, plures esse Naturas invisibiles quam visibiles in rerum uni-
versitate. Sed horum omnium familiam quis nobis enarrabit? et gradus et
cognationes et discrimina et singulorum munera? Quid agunt? quae loca
habitant? Harum rerum notitiam semper ambivit ingenium humanum, nun-
quam attigit. Juvat, interea, non diffiteor, quandoque in animo, tanquam in
tabulâ, majoris et melioris mundi imaginem contemplari: ne mens assuefacta
hodiernae vitae minutiis se contrahat nimis, et tota subsidat in pusillas cogita-
tiones. Sed veritati interea invigilandum est, modusque servandus, ut certa ab
incertis, diem a nocte, distinguamus.*
T. Burnet, *Archaeol. Phil.*, 1692: 68 (slightly edited by Coleridge)

I can easily believe, that there are more invisible than visible Beings in the
universe. But who shall describe for us their families? and their ranks and
relationships and distinguishing features and functions? What they do?
where they live? The human mind has always circled around a knowledge of
these things, never attaining it. I do not doubt, however, that it is sometimes
beneficial to contemplate, in thought, as in a Picture, the image of a greater
and better world; lest the intellect, habituated to the trivia of daily life, may
contract itself too much, and wholly sink into trifles. But at the same time we
must be vigilant for truth, and maintain proportion, that we may distinguish
certain from uncertain, day from night.
T. Burnet, *Archaeol. Phil.* p. 68 (in translation)

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Two phenomenal realms

As an introduction to the final version of his poem *The Rime of the Ancient Mariner,* Samuel T. Coleridge added the above quote in Latin from Thomas Burnet, Master of the Charterhouse, and chaplain to King William III of Orange. It reflects the influence of Burnet and the Christian Platonic metaphysical tradition on Coleridge's early thinking (Hedley, 2000). I am going to draw a parallel between what Burnet refers to here as the Visible and the Invisible, and what Halliday (On Matter and Meaning: the two realms of human experience) identifies as the two phenomenal realms which we as human beings come to define and inhabit, the realm of meaning and the realm of matter.

In his *Sacred Theory of the Earth* (1681) Burnet 'hoped to add to science and theology by citing an alternate Biblical tradition which held that the earth, until the Deluge, had been a smooth, featureless, perfectly proportionate sphere, but that afterward it was marred by mountains and scarred by the deep, uneven beds of rivers and seas' (Landow). The dilemma he faced, however, was in explaining how material imperfection could mean so powerfully. On the one hand, the material world was judged imperfect because it failed to conform to his sense of proportion, but, on the other hand, 'nothing had ever moved Burnet to such awe or so led his mind to thoughts of God and infinity as did the mountains and the sea' (Nicholson, 1959, cited in Landow).

Much of mainstream formal linguistics similarly imposes its own artificial 'sense of proportion' on language, as though irregularity and asymmetry in language were faults to be blamed on flawed human use. A very different perspective is reflected in descriptions of language as a social-semiotic system, which focus on its role in defining human experience, and enacting the social relations essential to our shared sense of humanity. Given the richness and complexity of human experience, and the dynamics and volatility of social relationships, it is not surprising that language is 'inherently fuzzy' (Halliday, [1995a] 2005: 204), and 'perhaps the single most complex phenomenon in nature' (Halliday, [1995c] 2005: 243).

In his essay for this issue, Halliday describes a language as being more than a system of meanings – a semiotic system, it is also 'a system that makes meanings – a semogenic system' (Halliday, this issue: 63). What enables this meaning-making potential in language is grammar. 'Thinking about meaning means thinking grammatically,' writes Halliday (this issue: 74). The ranks and levels, properties and functions of the semiotic system are revealed in 'the bits of discourse that we recognise as speech, or as writing' (ibid.: 63–4). Speech-in-situation opens a window to the soul of language as semiotic system-and-process. The invisible is rendered visible as meaning materialises in the course of construing experience and enacting relationships.

The two phenomenal realms of matter and meaning interpenetrate: 'meaning needs matter to realise it, and matter needs meaning to organise it' (ibid.: 69). The distinction between meaning and matter blurs, prompting Halliday to reject any 'pure' categories. Instead, he proposes to 'set up a continuum between the two phenomenal realms, matter and meaning, with the intermediate points defined according to the mix' (this issue: 69). Alternatively, we might view these phenomenal realms as overlapping strata whose interconnectivity creates what Wordsworth, in his autobiographical poem, *The Prelude; Or, The Growth of a Poet's Mind,* describes as 'The excellence, pure function, and best power Both of the objects seen, and eye that sees'.

> Moreover, each man's Mind is to herself
> Witness and judge; and I remember well
> That in life's every-day appearances
> I seemed about this time to gain clear sight
> Of a new world – a world, too, that was fit
> To be transmitted, and to other eyes
> Made visible; as ruled by those fixed laws
> Whence spiritual dignity originates,
> Which do both give it being and maintain
> A balance, an ennobling interchange
> Of action from without and from within;
> The excellence, pure function, and best power
> Both of the objects seen, and eye that sees.
> (*The Prelude*, Chapter 13, Lines 366–8)

Thinking in dualities

Thinking in dualities – material and non-material, matter and mind, physical and mental, conscious and unconscious – is reinforced in language by the grammatical distinctions that 'lie well below the level of people's conscious awareness' (Halliday, this issue: 66), such as that between material processes and processes of consciousness. The impact of language on our thinking is only part of the story, however, as language is itself 'a product of the conscious and the material impacting each on the other – of the contradiction between our material being and our conscious being, as antithetical realms of experience' ([1990] 2003: 145). Vigilance for truth, following Burnet's admonition, demands we critically assess the prevailing 'dualistic habit of thinking' lest what began as enabling become constricting.

A truer picture emerges when we acknowledge the dialectical tension between these two realms we inhabit – the material and the non-material, and respond by opening a dialogue of disciplines from both the natural and human sciences.

The human sciences – what Dilthey ([1923] 1988) called *Geisteswissenschaften* – are distinguished from the natural sciences by the way in which they take 'the whole man – in the multiplicity of his powers: this willing-feeling-perceiving being – as the basis for explaining knowledge and its concepts' (I: xviii) Both the natural and the human sciences have a role to play in 'establishing the foundations of knowledge' (Halliday, [1987] 2003: 136), with each bringing to the discussion their complementary interpretations about phenomena from either realm of human experience.

'If there is to be a science of sciences in the twenty-first century,' writes Halliday ([1987] 2003: 137), 'it will have to include linguistics – at least as a partner, and perhaps the leading partner, in the next round of man's dialogue with nature'. We find similar views in Whorf (1956), and much earlier, as Brachtendorf (1998) notes, in Augustine's *De Ordine* (386):

> For Augustine, dialectic is the science of sciences, the '*disciplina disciplinarum*' that deals with the principles of science as such. About the development of dialectic Augustine says: 'And when the science of grammar had been perfected and systematized, reason was then reminded to search out and consider the very power by which it produced art; for by definition, division, and collection, it not only had made it orderly and syntactical, but had also guarded it against every subtle encroachment of error'.

This journal is devoted to the exploration of how understanding about language – our principal meaning making semiotic system – helps us understand about other phenomena in human experience, and vice versa.

The need for this dialogue of disciplines has never been more pronounced and necessary than in this period of human history in which we are rapidly moving from the 'age of information' into the 'age of intelligence'. The day is coming when computers will be capable of what Michio Sugeno – a leading authority on fuzzy systems – calls 'intelligent computing', when natural language becomes the metalanguage used by computers. However, before humankind can 'move into the intelligent computing phase' (Halliday, [1995c] 2005: 246), there are two widely held disjunctions which need to be addressed: one being between language and knowledge, the second between 'the instance and the system of which it is an instance' (Halliday, [1995c] 2005: 246). Corresponding to each disjunction is 'a major duality in western thinking' (ibid.: 247). The first disjunction between language and knowledge corresponds to the duality between language and mind; the second disjunction between instance and system with the duality of *langue* and *parole*.

Instead, Halliday proposes one stratified system, language, which encompasses both wording (lexicogrammar) and meaning (semantics). Lexicogrammar is neither detached nor autonomous from semantics. The interface between wording and meaning is modelled as a system network of choice points, rep-

resenting the meaning potential found in language. The product of multiple choices from this network is a text, an act of meaning. Matthiessen and Halliday (1997) equate 'this dialectic of text and system' with 'what we understand by a living language'. Language-as-system, i.e. meaning potential, is one phase in the instantiation of the phenomenon of language, the other phase being language-as-text, i.e. meaning materialised. Meaning must materialise before it can be exchanged. This exchange of meaning plays a key role in the development of human consciousness (Hasan, [1998] 2005).

Establishing this relationship between instance and system is foundational to both the natural and the human sciences. However the instances are materialised, whether in nature or in discourse, segregating system and instance to preserve an idealised system obscures more than it reveals about the meaning potential of the phenomenon being described. Rejecting the Cartesian dichotomy between 'idealised competence' and 'messy performance', Halliday ([1995a] 2005: 207) argues the need to 'account for the disorder and the complexity, not as accidental and aberrant, but as systemic and necessary to the effective functioning of language'.

The complexity and indeterminacy of language – 'its multiplicity of functions, its elasticity, its systematic variation' – is what gives it the edge over other logic-based forms of representation when it comes to performing such tasks as 'data fusion (integrating information from language with that from numbers, symbols, images, and non-linguistic sounds), fuzzy reasoning, and construing the context of situation by inference from the text' ([1995c] 2005: 266). If language is to play a metalinguistic role in transforming the computer into an intelligent, 'meaning' machine, then we need 'a conceptual framework in which to locate representations of meaning' (ibid.: 267). Together, the two dimensions of instantiation and stratification define 'a matrix for locating computational linguistic representations' (ibid.: 248), paving the way for truly intelligent computing, or computing with meaning.

Beyond the ramifications for technology and improving our material existence, however, our aim in replacing disjunctions with conjunctions, and dualities with dialectic, is to better understand what breathes life into a living language, and to contemplate, along with Wordsworth, what grows out of this tension between 'thoughts and things':

Thus fear relaxed
Her overweening grasp; thus thoughts and things
In the self-haunting spirit learned to take
More rational proportions; mystery,
The incumbent mystery of sense and soul,
Of life and death, time and eternity, …
(*The Prelude*, Conclusion, Lines 282–7)

Thinking semiotically

Thinking semiotically gives us a new vantage point from which to pursue a knowledge of phenomena around which the human mind perpetually seems to circle but which it never attains. Once we begin to think in terms of meaning, however, it all begins to make sense. Meaning is a prerequisite for reflection and interaction. Meaning enables us to 'contemplate, in thought, as in a Picture, the image of a greater and better world', and to share that thinking with others. We live and act as conscious and communicative human beings in a universe where meaning and matter coexist and interconnect.

Bazerman writes in this issue ('Practically Human: the pragmatist project of the interdisciplinary journal *Psychiatry*') about the founding, over 65 years ago, of another interdisciplinary journal, *Psychiatry: Journal of the Biology and Pathology of Interpersonal Relations* (now named *Psychiatry: Interpersonal and Biological Processes*). The journal 'was directed toward the psychiatric concerns of personality, problems of living, and community health, grounded in an interdisciplinary inquiry into what it meant to be human' (Bazerman, this issue: 36). The lead article of the first issue of *Psychiatry* was entitled 'Why cultural anthropology needs the psychiatrist'. It was written by Edward Sapir, whose work in linguistics and anthropology 'set a standard for the integration of disciplines – linguistics, anthropology, psychology, and the humanities' (Darnell & Irvine). In his essay, Sapir 'argues that cultures themselves are built on the perceptions and understanding of the varied individuals producing the culture through their actions' (Bazerman, this issue: 21).

In 'Time in discourse', van Leeuwen (this issue) begins by referring to the work of the sociologist, Elias, who 'stressed that time, and the way we think and talk about it, is a product of the *activity of timing* – the activity of measuring one kind of activity or event sequence against another kind of activity or event sequence (1992: 43)' (van Leeuwen, this issue: 126). van Leeuwen proceeds then to 'describe the semiotic resources currently available in "Western" discourses for enacting and representing this activity, together with their realisations in the English language (with occasional reference to other semiotic systems) (ibid.: 138)'.

The genesis of meaning potential in human activity, whether mental, semiotic or social, is observed in the way that children learn to construe experience and enact relationships through their mother tongue. 'Learning to mean is a process of creation,' writes Halliday ([1978] 2003), 'whereby a child constructs, in interaction with those around, a semiotic potential that gives access to the edifice of meanings that constitute social reality' (ibid.: 138). The crucial role language plays in our development as human beings should serve to underscore its importance to the human sciences. Pointing to insights into the development of personality and socialisation obtained from studies of language development,

Bazerman concludes his essay with the observation that 'Language, that filmy, dissolvable glue of interaction may be a key place to look to understand how life seems to all hold together in the moving wave front of the moment, which leaves behind it only what we take away in artifacts, experience, memory and changed practice' (Bazerman, this issue: 35).

If disconnected from author and creator, meaning and matter become vacuous and desolate phenomena, like a lifeless body or a vacant dwelling. In his autobiographical account of the history of the Author's mind, Wordsworth describes Imagination as 'but another name for absolute power And clearest insight, amplitude of mind, and Reason in her most exalted mood' (lines 190–2). This human potential for imagining what can only be seen in the mind's eye, is born out of human experience, and finds expression, where meaning resides and language lives, in 'The works of man and the face of human life':

> This faculty hath been the feeding source
> Of our long labour: we have traced the stream
> From the blind cavern whence is faintly heard
> Its natal murmur; followed it to light
> And open day; accompanied its course
> Among the ways of Nature, for a time
> Lost sight of it bewildered and engulphed;
> Then given it greeting as it rose once more
> In strength, reflecting from its placid breast
> The works of man and face of human life;

For Wordsworth, this self-reflection on the growth of a poet's mind leads finally to 'that Eternal Thought' (Thumboo, this issue: 2):

> And lastly, from its progress have we drawn
> Faith in life endless, the sustaining thought
> Of human Being, Eternity, and God.
> (*The Prelude*, Conclusion, Lines 193–205)

Understanding humankind

If language is the key to understanding humankind, then the human sciences need a scientific way of investigating meaning in language. Dilthey's ([1923] 1988) doctrine of *Verstehen*, developed in his later years, takes Schleiermacher's hermeneutics (Mallery, et al., 1987) and broadens it to serve as the basis for interpreting 'the remains of human existence contained in writing' (V: 319). Halliday, on the other hand, argues the advantages of linguistic analysis, or as he calls it, 'grammatics', for interpreting the meaning of texts. Both share a similar quest for understanding what language reveals about ourselves.

One thing is certain, however, no one discipline or theory in the human sciences can by itself tell the whole story of human existence. Instead, Hasan (*Semiotic mediation and three exotropic theories: Vygotsky, Halliday, and Bernstein*, 2005) calls for metadialogue between exotropic theories, as exemplified by the following three theories whose 'interconnections produce a narrative that is much richer than any single discipline could have provided by itself' (2005: 155–6).

> Vygotsky contributes to the understanding of our mental life by revealing its deep connection to semiosis; in so doing he anticipates the literature on the dialectic of language and mind: it is this dialectic that is responsible for their co-evolution in the human species. Halliday contributes to the understanding of our semiotic life by revealing its deep connection with society; in so doing, he elaborates on the dialectic of language and society which underlies their co-genesis. Bernstein contributes to the understanding of our social life in modern societies by revealing its inherent connection with consciousness created in semiosis in the contexts of communal living; in so doing, he makes us realise how minds need societies and societies need semiosis to survive, to develop, and to change. (Hasan, 2005: 156)

While acknowledging there are differences in their approaches, nevertheless meta-dialogue is still possible because there is 'a reciprocity of concern' (Hasan, [1999] 2005: 50). How each addresses its problematic – its conceptual syntax – complements the others. Unlike endotropic theories which 'are centred onto their own object of study, isolating it from all else', an exotropic theory is 'cosmoramic, typically embedding its central problematic in a context, where the processes of its maintenance and change originate in its interaction with other universes of experience' (ibid.: 51). To the extent that our theorising is exotropic, there exists the potential for realising a meaningful dialectic in the conjunction of linguistics and the human sciences.

What does linguistics bring to the table? Why is the linguist a necessary partner in the dialogue ongoing within the human sciences? The human sciences need the linguist for much the same reason that the linguist needs a grammar, to theorise the processes of meaning and interpretation. 'Every theory is a metaphor for what it is theorising,' states Halliday (this issue: 78). The source of this metaphor-making potential is found in language; 'language theorises the human condition by providing a semiotic trajectory between the human organism and its ecosocial environment: between the environment of material and social processes at one end and the meaning-making organs of speech and hearing at the other (Thibault, 2004)' (Halliday, this issue: 78). Unlike other sciences whose object of study is something other than language, linguistics metaphorises about language itself, as both mediator and metaphor:

'it construes meanings to explain the processes of meaning' (Halliday, this issue: 78). Linguistic theory becomes none other than a metaphor 'for whole of meaning as theorising – for the ability of the semiotic realm to construe itself into successive planes of virtual reality, in the (so far) unremitting human effort to understand' (Halliday, this issue: 78).

The linguist's theoretical account of language provides a conceptual tool for analysing not only language – as illustrated in Coulthard's 'The linguist as expert witness' (this issue), but also other forms of human semiosis, including images, the visual arts, and music. A good example of the application of systemic-functional grammar to 'the language of painters' is presented in O'Toole's 'Pushing out the boundaries: designing a systemic-functional model for non-European visual arts (this issue), in which he presents his analysis of the famous seventeenth century Qing Dynasty landscape painting, Gong Xian's *Landscape in the Manner of the Southern Masters* (1689). The 'towering views of craggy mountains' and 'rough but horizontal shoreline' remind us on several levels that there is no matter without meaning and no meaning without matter.

The spirit of this conjunction between linguistics and the human sciences, as envisioned for this journal, is artistically rendered in Edwin Thumboo's poem, *Conjunction*, created especially for this launch issue. The poet metaphorises across conjunctions of matter and meaning, space and earth, light and darkness, physiology and theology, nature and revelation, death and resurrection, Creator and creation. The poet's wording crafts a verbal picture of unbounded meaning. While the linguist's theorising doubtless falls short of the poet's 'grammar in a sacred word', the goal remains to know meaning 'in light and darkness, and the shades in between'.

> One who knew meaning
> In light and darkness, and the shades between, said
>> Words alone are certain good…
>> The wandering earth herself may be…
>> Only a sudden flaming word…
> (*Conjunction*, stanza 4, Edwin Thumboo)

> The heavens declare the glory of God;
> the skies proclaim the work of his hands.
> Day after day they pour forth speech;
> night after night they display knowledge.
> There is no speech or language
> where their voice is not heard.
> Their voice goes out into all the earth,
> their words to the ends of the world.
> (*Psalm* 19: 1–4, David)

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