

Commensurability, Comparability, Complexity, and Some Implications for the Communication of Meaning

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ABSTRACT

The idea of linguistic/conceptual incommensurability (i.e. the argument that different ideas or worldviews cannot be reduced to a common language and therefore not assessed on a level playing field) is often used to deny the possibility of true communication. Supposedly the ‘users’ of the different paradigms live in different worlds and therefore can only talk passed each other; genuine communication is somehow impossible (despite the fact we seem to do it reasonably well every day of our lives). It is argued in this paper that the requirement of commensurability in order to achieve successful communication is demanding too much and is unnecessary. To appreciate how successful communication is possible in spite of conceptual incommensurability we must understand the difference between (logical) commensurability and comparability.

Commensurability requires that the languages of two different perspectives can both be translated *without loss* into a third common (meta-) language. If such a translation is possible then a fair assessment of the claims/meanings of each perspective can be made. Therefore to successfully communicate across paradigms we simply need to shift to this common language; complete conveyance of meaning then becomes a trivial matter. In the natural sciences there is a tendency to assume that the language of all fields can be translated into mathematics and logic. If for example a chemical theory (based on the behavior of molecules) and a biological theory (based on the behavior of multi-celled entities) can be reduced to a physical theory (based on superstrings, say) then an objective assessment of the two theories’s claims could be made. Note that the move to a common (meta-) language requires a move to a common ontology. To achieve this ‘move’ we have abstracted from the two worlds of molecules and cells to a single world of superstrings. For the two worlds to now be commensurable it is assumed, however, that the abstraction process is *lossless*, i.e. no information is lost in the translation. I have argued elsewhere (Richardson, 2004) that the worlds of chemistry and biology and in fact *not entirely* reducible to the world of physics (i.e. the whole is *not* the sum of its parts except in idealized representations). As such, an ‘ontological move’ is unavoidably *lossy*. It follows from this that the requirements of commensurability can only be met in the Platonic world of mathematics and logic in which such ‘moves’ can indeed be *loss-free*, although they are *analytically trivial* (i.e. they are possible by definition). Of course, these Platonic worlds are interpreted by us – the interpretation of an objective world by subjective beings unavoidably introduces subjective elements and so, though mathematics itself might be objective, its interpretation is not so clean cut (and therefore considering the efficacy of mathematics is meaningless without including the interaction with varied interpreters). For all practical intents and purposes the demanding requirements of commensurability (that would allow perfect communication – what Habermas called *the ideal speech situation*) cannot possibly be met in any complete

sense, and so communication is indeed quite impossible. Given the fact that we seem to communicate successfully quite often this conclusion may seem absurd. However, it is common for such black and white thinking to lead to such seemingly absurd statements. How can we communicate successfully if communication is *logically* impossible? The real world is rarely so clear cut and so our thinking must be a little grey.

Comparability is a more relaxed version of commensurability. Whereas commensurability requires a *lossless* move to a common language (some thing I have already argued is unachievable), comparability specifically acknowledges the *lossy* nature of abstraction and simply requires that a meaningful and useful abstraction can be negotiated that allows a temporary, albeit incomplete and context-dependent, comparison to be made. The abstraction routes are many and therefore there are more than one qualitatively different abstraction that can be utilized in the effort to make useful comparisons. The comparisons are incomplete and because of the fact that translated meanings of the original concepts are not faithful representations of the original meanings, but useful caricatures. Of course in making use of such comparisons we necessarily have to accept a degree of uncertainty and vagueness rather than the total certainty supposedly afforded (though impossible to realize) by the worldview of commensurability.

Because of the differences between commensurability and comparability two viewpoints can be incommensurate yet still comparable, albeit within a restricted context. In an absolute sense meaning is indeed private, but because private meanings are comparable even if incommensurable successful communication is achievable, though of course there is ample room for error (and this error is quite often the source of our creativity and so there is no reason to regard such 'mistakes' in a negative light). All communication is a form of misunderstanding – we might say that successful communication is a misunderstanding whose 'misses' do not matter in the context it occurred. Comparability is imperfect yet easily achievable, whereas commensurability is perfect yet completely unachievable.