

We have heard many different notions of what the words: science, philosophy and the term 'philosophy of science' mean. No doubt if we consult three different dictionaries we will discover three more., and if we consult Wikipedia yet another.

I would hope that those of you more predisposed to enquiry than debate ;even those with with a science and engineering background, like myself; might ask them selves how is it that scientific and engineering discourse is so clear and philosophy (whatever that may turn out to mean) so plagued with with ambiguity ?

Here is a theory' which for lack of a better title I have described as a "General Theory of Discourse" followed by an attempt to contextualise scientific and engineering language within it. There is no attempt here to discriminate between 'technology' and 'engineering', which is here intended as:
-the whole process of invention, design, construction and development of material and intellectual artefacts.

General Theory of Discourse

[I] As a subject matter becomes more ' difficult'; there is a tendency for one's words to miss-communicate the intended meaning to one's listener or reader, due to either:
- obscurity, the word conveys no meaning;
-ambiguity, the word conveys many unintended meanings or
- is misleading, the word conveys one meaning, but not that intended.

[II] A partial list of the ways a subject matter can be more difficult would seem to include:
- complex versus simple;
-general versus particular
- subtle versus obvious
- implicit versus explicit
- subjective versus objective
- what exists versus what should / should not be

So all other things being equal; it would be expected for example, that discussing the location of the local post-office should result in less miss-communication in the above sense than discussing some scientific, philosophical, metaphysical or mystical matter, (speculated order of increasing likelihood of miss-communication)

[III] But of course all other things are not equal; any two people will experience greater or lesser miss-communication, in the above sense depending on both the difficulty of the subject (as above) and what I will term their 'degree of linguistic commonality'

It is such a common place, that we take it for granted, that if a speaker has only an English vocabulary and the listener only a French one; communication will be difficult or impossible. So the idea arises that there may be other matters about which there also needs to be agreement even though the requirement like French or English is optional ?

Perhaps there is an ordering of such agreements, so that one is prerequisite for the next ? Here is what seems like a partial sequence of such agreements

- 1/ Is it agreed that words will only be used literally and not metaphorically ? if so;
- 2/ Is it agreed that responsibility for disambiguation of words rests with speaker, listener or somewhere in between ? if so;
- 3/ Is there agreement regarding what words are (ontologically) ?
eg. if they are symbols; what 'is' (ontologically) the referent of the symbol ?
if so;
- 4/ Is there agreement regarding the utility of definitions to the end of clarifying the meaning of words ? if so;
eg Wittgenstein in Tractatus Logico-Philosophicus might not have agreed with this
if so;
- 5/ Is there agreement concerning the linguistic form of definitions ?
eg. Should definitions be:
concise, as in using a minimum number of words ?
precise, as in being as unambiguous as possible ?
exhaustive, as in including all intended usages and excluding all other ?
reductive, as in not using words more as or more complex than that being defined ?
if so;
- 6/ Is there agreement that the definition doesn't merely describes an arbitrary category
eg." It all depends how you define "X";
if so;
- 7/ Is there agreement on whether words are not just a natural phenomena but also a social artefact ;the purpose of which is to convey meaning ?
ie. with the implication that a dictionary definition is not an arbitrary construct;
but should be a hypothesis describing preferred usage within a given demographic;
with the further implication that objective ranking of dictionary definitions becomes meaningful .
If so;
- 8/ Is there agreement that in a natural language the category so described is not arbitrary, as in say a legal definition but that it is an attempt at ontological description ?

-as mentioned this seems like a partial list ; that is further criteria may become evident ;
similarly the ordering is tentative and may require adjustment

It is very important to emphasise:

- that the above is just one path through a binary tree of $2^8 = 256$ possibilities , where progress along each path is only indicative of reduced likelihood of miss-communication.
- that just because there is little likelihood of miss-communication does not mean there will be substantial agreement between speaker and listener;
eg. I may have substantial reservations regarding the existence of angels but at least; the theologian and myself; will be communicating;
- eg. The positivist philosopher may have substantial reservations regarding the utility of meditation but again she and the mystic will be communicating.

It is also contended the above path would be typical for speaker / listener pairs; with a common background in science and / or engineering and whilst the subject matter was limited to scientific and engineering matters. It becomes clear then why such communication is so void of semantic confusion; namely because objective falsification has imposed very strict constraints on:

-what the desired linguistic form of definitions are considered to be ;

-what the definitions of common terms will be:

eg mass, length, time, energy.....etc.

In some ways the program of positivism and analytic philosophy can be seen as a hope to eliminate the ambiguity and miss-communication so common in much Greek and Continental Philosophy. This procrustian approach seems to have the unfortunate collateral result of excluding most subjects of interest in philosophy; eg ethics, ideology, epistemology, ontology, metaphysics, mystical and spiritual experience