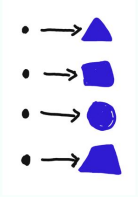
Molecularism about Concepts

Richard Stöckle-Schobel
PPLS, University of Edinburgh
R.V.J.Stoeckle-Schobel@sms.ed.ac.uk

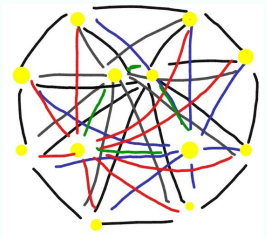
Abstract:
One part of the long debate about the nature of concepts has been dominated by the disputes between Conceptual Atomists and Conceptual Holists. A third, middle-ground position, Molecularism, has neither been debated as much nor has it been thoroughly defined yet. I will present two possible ways of construing Molecularism about concepts and I will argue that both are variations of the more commonly held views. To support this view, I will offer two metaphor-based reconstructions of Molecularism – Chemical Molecularism (CheM) and Cluster Molecularism (CluM). CheM is the view that some concepts are constructed from more primitive concepts, which, by virtue of their individual meanings and their combination, provide the meaning of the 'molecular' concept.
This view relies on Atomist premises and faces some of the same problems as Conceptual Atomism. CluM, on the other hand, is a weak kind of Holism that is based on the idea that there are clusters of concepts that have strong relations (e.g. inferential relations, thematic groupings, or family resemblances), which are connected by more general concepts or by weaker links between clusters. CluM still has to answer to some worries Holism faces, such as the problem of Communication. I will end by proposing that CluM is preferable, based on a speculative idea about the relation between concepts and webs of belief.

Conceptual Atomism and Conceptual Holism

Conceptual Atomism and Conceptual Holism are two of the main positions with regard to the question: what is the structure of human conceptual systems, and how should we characterise the relations between concepts. I will focus on two main points of divergence between the two views and illustrate them with schematic images.



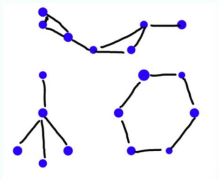
Atomists hold that the meaning of a concept is not determined by its relation to other concepts, but by reference to the object it represents. Consequently, they hold that it is possible to have only one single concept, since that single concept's meaning is completely given by its relation to its referent.



Conceptual Holists hold that the meaning of any given concept is in important ways determined by its relation to other concepts. On this view, one cannot have one single concept, independently of a set of others, which situate it in a rather global web of concepts. Variations of this view can be found in proponents of Conceptual Role Semantics like Ned Block, or by proponents of the normativity of meaning, such as Robert Brandom or Wilfrid Sellars.

Molecularism - A middle-ground alternative?

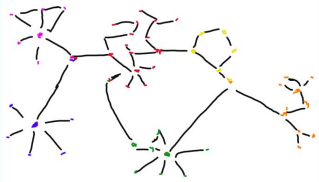
I propose to think of Molecularism about concepts as the view that there are concepts whose meanings are dependant upon their relation to other concepts. I want to propose two interpretations of this basic idea - Chemical Molecularism and Cluster Molecularism.



Chemical Molecularism (CheM)

Molecular concepts are combined out of a set of basic atomic concepts, put into a variety of combinations. The molecular bonds between atoms serve to fix the structure of the molecule, but don't add anything of importance to the concept's meaning.

Example: LIME might be the molecule formed from the 'simpler' concepts SMALL AND ROUND AND SOUR AND GREEN AND FRUIT.



Cluster Molecularism (CluM)

Every concept is linked to some other concepts by connections of various kinds, depending on the clustering. Clusters could be weakly interlinked, creating a weaker web of concepts than Holism would posit.

Example: astronomical concepts are a cluster with few links to other domains, except some subsets of physics, meteorology, and logical concepts that provide some of the relations within the cluster.

CheM as an Atomist view

If we follow the analogy from chemistry, we find that conceptual molecules are built from atoms of the kind Conceptual Atomists posit. I will assume that these atoms are simple concepts that cannot further be broken into smaller parts. The meaning of such molecular concepts is still mainly determined by the kinds of atomic elements that comprise it; the 'molecular bonds' do provide a 'structure' to the concept, but often, permutations in the structure won't make a difference to the meaning of the molecule. For example, ROUND AND BERRY AND SMALL AND RED arguably means the same as SMALL AND ROUND AND RED AND BERRY.

CluM as a Holist view

The 'cluster' sense of Molecularism relies on the Holist idea that the meaning of a concept is also determined by its relations to other concepts. It is weaker in so far as it stipulates that thematic clusters of concepts can be almost isolated from the rest of the conceptual system.

Example: the clusters of folk psychology and of botany have very few links, and even those are of a weak kind. Only by taking double meanings into account, we get a connection between TREE and BELIEF, through the metaphorical concept TREE OF KNOWLEDGE (assuming that the concepts KNOWLEDGE and BELIEF are related through something like the classical 'definition' of knowledge as justified, true belief).

I propose that it is safe to assume that CheM is an Atomist type of Molecularism and that CluM is a Holist kind of Molecularism. I have attempted to identify some ways in which CheM and CluM differ from the standard formulations of these theories, but the question remains whether Molecularism is a genuine alternative to Holism and Atomism if its two most salient interpretations rely on the theories it was supposed to offer an alternative to.

Which version of Molecularism is preferable?

If both CheM and CluM are genuine variants of Atomism and Holism, then they both are likely to inherit some of the flaws of the group of views they belong to.

The most pressing problem for CheM is that it needs to answer the question: which concepts are atoms and which concepts are molecules, and why? CheM introduces a hierarchy into the conceptual system; CluM can avoid this, presumably. A related question is: which kinds of concepts can be the foundational atomic building blocks of the conceptual system? Can these be anything besides perceptual primitives? I suspect that many versions of CheM will inherit characteristics and problems from Early Modern Empiricist theories of Ideas.

Clum inherits the 'Communication problem' from Holism: if a concept gets part of its meaning by its relation to other concepts, how can two speakers, who presumably draw slightly different connections between any given concept, ever mean the same thing when talking about a concept? Furthermore, CluM also has the 'Acquisition problem': if concepts only come in (potentially quite large) clusters, how can we explain the acquisition of concepts? How likely is it that concepts are learnt in large groups?

Wider implications of this result

If Molecularism only partially escapes the problems of the dominant positions because it is a subspecies of one of these views, then there are more important questions that need to be addressed before we should decide whether we want to be, e.g., 'proper' Holists or CluM-style Holists. Among these questions, the following are among the most pressing:

What do the connections between concepts contribute to individual concepts' meanings? Can they trump the relation between a concept and its referent?

I think that CluM is preferable to CheM because it gives a better explanation of the inferential relations between our concepts. In an interdisciplinary exploration of the view, work on webs of belief and theory formation could support this intuition, seeing how beliefs are often assumed to strongly depend on a wide variety of background assumptions, (ad-hoc?) theories, and epistemic commitments.

References:
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