Chapter 6
A dynamic construal approach to sense relations I:
hyponymy and meronomy

Introduction:
Lyons (1968) declared that all sense relations (such as hyponymy, incompatibility and antonymy) were context dependent.

Sense relations are treated as semantic relations not between words as such, but between particular contextual construals of words.

This chapter and the next will reexamine a number of sense relations from the standpoint of the dynamic construal approach to meaning.

6.1 Hyponymy

6.1.1 Introductory
X is hyponymous to Y.
Examples: Koalas are marsupials
  Mango is fruit

A similar relation can be found between items belonging to other parts of speech.
Examples:
(1). Did she hit him?
   Yes, she punched him in the stomach.
(2) Is your new skirt red?
   Yes it’s a marron velvet.

The definition of hyponymy:
X is a hyponym of Y if F(X) entails, but is not entailed by F(Y). (Lynons, 1963)

6.1.2 Hyponymy and context
A difficulty with the notion of hyponymy.
Cruse (2002b): the native subjects classify pairs like dog: pet as hyponyms, even though It’s a dog does not entail It’s a pet.
Cruse(1986) : the relation between dog and pet was labeled ‘para-hyponymy’

Relations of meaning between construals of different words in the same discourse are important because they are frequently necessary for both discourse cohesion and the well-formedness of
inference patterns.
Example: X and other Ys -> Dogs and other pets

Construability is not infinitely flexible.
Example: A car seat is a type of seat.
   A seat is an item of furniture
   *A car seat is an item of furniture.

Sense relations have traditionally been viewed as relations between items potentially occurring in a fairly strictly defined ‘paradigmatic slot’.
Example: A: What’s that noise?
   B: It’s just a dog.
A full understanding of significance of dog in B’s reply needs at least (a) a construal of a domain of potential noise-producing agents, given the context, (b) a construal of what is excluded and (c) a construal of the range of possibilities opened up by dog in this context.

6.1.3 Relations between lexical items
Sense relations hold between contextual construals of lexical items and not between the lexical items.

6.1.4 Taxonomy
Lyons states that taxonomic lexical hierarchies are structured by the relations of hyponymy (class inclusion) and incompatibility (class exclusion).
There are two distinctions between two relations of inclusion. The first is the relation that is exemplified in An X is a Y (simple hyponymy); the second is the relation for which an X is a kind/type of Y is diagnostic. In Cruse 1986, the second relation is called taxonomy.

Taxonomy is not simply dividing a larger class into smaller classes. Taxonomy exists to articulate a domain in the most efficient way. This requires ‘good’ categories that (a) are internally cohesive, (b) are externally distinctive, (c) are maximally informative.
A good hyponym is not a good taxonym of a hyperonym.
Example: Stallion = male horse (hyponym <-> hyperonym)
   ? A large/metal/round/deep spoon is a kind of spoon. (taxonomy <-> hyperonym)

The problem of taxonomy cannot be solved merely by looking at the nature of the subcategories.
The taxonomy must further specify what is profiled in the hyperonym, and a good taxonym must have as its core a specification of the core of the hyperonym.
6.2 Lexical aspects of the part-whole relation

6.2.1 The part-whole relation

Sometimes meronymy is informally described as the ‘part-whole’ relation, but it’s not strictly correct.

Meronymy is a relation between meanings, whereas the part-whole relation links two individual entities.

6.2.1.1 The portion-whole relation

The part-whole relation here will be called the portion-whole relation.

Examples: (1). A portion of the cake was given to each of the guest.
(2). It was a game of two halves.

The basic notion here is the containment of one region or regions within another region.

6.2.1.2 Parts and pieces

Consider the following two sentences:
(1). All the parts of the aeroplane were carefully packed into crates, ready for shipping.
(2). After the explosion, pieces of the aeroplane were scattered over a wide area.

Get ‘Part’ is a hyponym of ‘portion’; distinguishes parts from pieces is called ‘autonomy’?(No)

6.2.1.3 Factors affecting the GOE of parts

The category PART has good and less god exemplars.

The main factors that a high GOE for X as a part of Y:
(1). The boundary of X does not transgress the boundary of Y
(2). X shares all its substance with Y
(3). The boundaries of X can in principle be demonstrated in a well-formed whole X.
(4). The sharper the discontinuity between X and not-X the better the part
(5). The greater the internal cohesion of X the better the part.
(6). X has a deifiable function relative to Y.
(7). X is autonomous: exact replicas of X also count as parts.
(8). There is type-consistency between X and Y.

6.2.1.4 Part-whole chains

The part-whole relation generates chain of elements: A is a part of B, B is a part of C and so on.

6.2.1.5 Ultimate parts and ultimate wholes

A part-whole chain prototypically has a beginning and an end; that is, there is a small part and there is a large whole.

Examples: (1). ? The fingertips is the smallest part of the body.
(2). ? The lid was attached to the pan by means of a hinge.
6.2.1.6 Core parts
A whole X- any smaller unit Y can only be construed as a part of X: certain parts may be stripped off without completely destroying wholeness. The smallest possible portion of an X that can be construed as a whole X the core part.
Example: The heart is the core part of the body.

6.2.1.7 Variable construal and the transitivity of the part-whole relation
A distinction was made between ‘integral parts’ and ‘attachments’ (Cruse 1979 & 1986). These were distinguished as follows:
(1). If X is a part of Y and X is attached to Y are both normal, then X is an attachment of Y.
Example: The hand is part of the arm. -> The hand is attached to the arm.
(2). If X is a part of Y is normal, but X is attached to Y is not, then X is an integral part of Y.
Example: The handle is a part of the spoon. -> ? The handle is attached to the spoon.
This distinction was called ‘transitivity failures’ in the part-whole relation.

6.2.2 Meronymy
Meronymy is viewed here as a relation between contextually construed meanings.
Example: finger is a meronymy of hand

Intrinsic construal of partness: the finger of the hand
Extrinsic construal of partness: the ‘lake’ of the park

The relation of meronymy concerns only intrinsic construals of partness:
If A is a meronym of B in a particular context, then any member a of the extension of A either maps onto a specific member b of the extension of B of which it is construed as a part, or it potentially stands in an intrinsically construed relation of part to some actual or potential member of B.

The situation with regard to parts and wholes and their linguistic expression can be summarized as:
(1). The part-whole relation properly applies to individual entities. It is a construal that is subject to variation.
(2). The recognitions of a relation of meronymy between construals is justified by the existence of a small number of generalizations and distinctions that only apply to classes of parts.
(3). Every language has a range of ways of referring to parts of things. Many of these ways involve specialized lexical items, but apart from a very restricted core set of strict lexical meronyms, the relations between these and expressions for whole things are very various.