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Componential Analysis

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- In **componential analysis**, the total meaning of a word is being analyzed into a number of distinct components of meaning (semantic features).
This kind of analysis can offer a theoretical framework for handling all the sense relations we have been discussed in our previous lectures.

- As an example of componential analysis, we notice that in English (and also many other languages) there is a three-fold division with many words **that refer to living creatures as in the following:**

man	woman	child
bull	cow	calf
ram	ewe	lamb

- In the light of relationships such as these we can abstract the **components** (male) and (female), (adult) and (non-adult), plus (human), (bovine) and (ovine). Thus, "ewe" is (ovine), (female), (adult), "child" is (human), (non-adult) and so on.
- Analysis of this kind is called **componential analysis**. It allows us to provide definitions for all these words in terms of a few components.
- In many cases there is an appropriate word in the language to label the component. The components (male) and (female) are obvious examples. Such labels for components are not, however, always readily available. **For instance, notice the relationship between the words in the following two sets:**

come	go
bring	take

- From these two sets, we notice that there is a relationship between the words "come" and "go" which is similar to "bring" and "take". We could therefore distinguish **components** X and Y and A and B such that "come" is XA and "go" XB, "bring" YA and "take" YB. But what could be the names of these components (X, Y, A, B)? It is difficult to provide an answer, for they cannot be identified with features that have any simple kind of physical reality.
- We may, perhaps, assume that all societies distinguish between (male) and (female) and that thus the components (male) and (female) are universal components of language. But the "come/go" and "bring/take" examples show that not all components are related to simple physical features, and it becomes less plausible to assume that they are universal components found in all languages.

- A particular characteristic of componential analysis is that it attempts as far as possible to treat components in terms of "binary" opposites, e.g. between (male) and (female), (animate) and (inanimate), (adult) and (non-adult). It clearly gives emphasis to the relation of complementarity.
Notationally, there is an advantage in such binary terms in that we can choose one only as the label and distinguish this in terms of **plusses** and **minuses**.
- Thus, (male) and (female) are written as (+male) and (-male) and so on. We can, moreover, refer to the lack of a sex distinction as in the case of inanimate objects using the notation 'plus or minus' with the symbol (\pm male). This works well only where there is a clear distinction. Often, however, there is indeterminacy, as with the words "tar" and "porridge" in relation to the components (solid) or (liquid).
- Componential analysis has been used to bring out the logical relations that are associated with sense relations. Thus by marking man as (+male) and pregnant as (-male), we can rule out *pregnant man. Yet, componential analysis does not handle all **sense relations** well; in particular,

the following two sense relations:

- 1- converses (relational opposites) in antonymy
- 2- hyponymy

1- Converses (relational opposites) in antonymy

It is difficult to reduce the relational opposites to components. For the relation of "parent/child" cannot simply be handled by assigning components to each, unless those components are in some sense directional. In componential analysis, cases like these are analyzed as having the same components but in a different direction.

2- Hyponyms

Componential analysis cannot remove the hierarchical characteristic of hyponymy. For the distinction (+male)/(-male) applies only to living (animate) things. Componential analysis, therefore, has to state that: only if something is animate, may it be male or female with a formula such as (+animate, +male/-male).

- Componential analysis can handle all the sense relations we have discussed, but it handles some sense relations better than others like hyponyms and converses. It can be made to handle these relations with some necessary modifications like adding direction to the analysis in the case of converses, but it is doubtful if componential analysis makes these relations clearer; it seems rather to obscure their differences.

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