Research and Development Unit

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THE DEVELOPMENT OF STRATEGIES FOR THE ASSIGNMENT OF SEMANTIC INFORMATION TO UNKNOWN LEXEMES IN TEXT

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The teaching of a vocabulary has long been recognized as a problem any foreign language teacher has to face, particularly at the intermediate and advanced levels. In particular, it is considered important to help students to expand their vocabulary, in order to be able to cope independently with language, in its spoken and written forms. Nevertheless, the development of a methodology for the teaching of vocabulary has lagged far behind the teaching of, for example, grammatical structures, especially, but not only in ESP courses intended to help students to read in their speciality.

In an earlier Unit study (Alvarez, 1976), five ESP textbooks were selected and the procedures used for the teaching of vocabulary were examined. The presentation techniques used, the exercise formats and the activities required of the students were classified, and it was found that there was a surprisingly limited number of actual exercise types in use. They could, in fact, be reduced to five basic types:

i) translation into the learner's mother tongue
ii) paraphrasing (which includes definitions)
iii) ostensive definitions
iv) pictorial procedures
v) contextual inference (seldom used, and never systematically)

The most disturbing discovery of this study was the fact that the vast majority of the exercises did not, in fact, teach students vocabulary, but rather tested their knowledge of it, or, at best, exercised what they already knew.

Moreover, the exercises did not attempt to develop, in the learner, strategies for guessing, or inferring, the meaning of unknown words. This is especially needed in the sort of ESP course we are developing in the UNAM, where it seems to us important, not to teach students the 'meaning' of individual words, in the hope that they will remember them when next they come across them, much less merely to test the students' knowledge of the meaning of words, but rather to give the students a series of techniques to help them to handle vocabulary in text, to show them strategies for meaning identification in context. In fact, what we need in a reading comprehension course is probably not vocabulary expansion exercises i.e., the traditional approach to 'teaching' vocabulary - but what have been called vocabulary attack strategies (Gonzalez and Mackay, 1976). In other words, we need strategies for the assignment of semantic information to unknown words in text. Previous writers, including the article referred to above, have suggested certain ways of teaching such vocabulary attack strategies. However, the exercises proposed are usually somewhat traditional, and, as will be shown, do not solve the central problem, which is that of how to identify at least some of the meaning of a word.

One so-called vocabulary attack strategy, which has been used traditionally for some time, is the study of morphology. The possible morphological changes a word can undergo are presented and drilled and the meaning of the morpheme explained. For example, the relationship may be pointed out between

develop developer development

or

practice practical practically

The problem of such exercises is that if the student does not know what the base lexeme (develop, or practice) means, then knowledge of morphological changes is not going to help him to find out.

Similarly, exercises have been developed to help students identify parts of speech and it is clear that grammatical information can convey meaning. Identifying words as nouns, not adverbs, presumably helps one to divide up the sentence and get at the syntax, which helps one to make predictions as to what the sentence might mean. Nevertheless, useful though this sort of exercise is, it doesn't really get at the heart of the problem, which is the identification of semantic, usually lexical, meaning.

Of course, exercises have existed for centuries teaching students how to use dictionaries and are useful. In fact, they have made pedagogic use of traditional semantic insights, e.g. the notion of polysemy ("mouth of a river", "ear of corn") and homonymy ("bank" meaning "side of river", and "financial institution"). Such exercises, however, confirm to the student that words are important, that it is essential to disambiguate, and to use a dictionary to do this. This seems to us to be unsound, for two reasons.

First, it is not necessary to disambiguate, since it is not important to know the meanings of all the words in text. It is frequently assumed that to understand text it is essential to know what each word means. Such assumptions are not justified, and students should be taught precisely to ignore a proportion of the text. This, of course, is particularly important when teaching students the skill of skimming, but it is also important when attempting to teach students to guess at meaning. Students should be encouraged to read past unknown words to the end of the paragraph, and then to decide on the importance of the word. If, after reading the whole paragraph, it still seems important, then strategies for identifying or guessing at meaning can be utilized. The word by word approach, as well as the testing approach, both ignore a fundamental principle in vocabulary recognition, which is that of vagueness. It is a fact that when we first meet an unknown word in our mother tongue, we are capable of identifying its meaning only very vaguely, and our knowledge of that word's meaning builds up and becomes clearer only with repeated exposure to the word in different context. Most of the time, in fact, we are happy

to operate with only the vaguest notions of the meaning of many words, simply because greater precision is not necessary for the understanding of a particular text. Yet we frequently expect students to be able to define words from first acquaintance (viz. the testing approach).

And yet, when we read, say, Dickens, how many times do we as native speakers actually look up in the dictionary the meaning of unknown words denoting clothes, or vehicles no longer in existence? Surely most of us have been satisfied with a vague notion of the meaning, and have not needed recourse to a dictionary.

Which brings us to our second objection to traditional teaching of how to use the dictionary, namely, that it does precisely that. Whereas we should be encouraging students to throw away dictionaries, to develop strategies for meaning identification within the text and to develop a tolerance of vagueness which presumably they have in their own language.

The other traditional piece of advice handed to students in so-called vocabulary exercises, which in fact approaches what we need, is the advice to 'use the context'. Unfortunately this advice is handed out liberally, without telling students how to do just that. Any work given to students is presented in a totally unsystematic manner, whereas what we need to teach students is how to use context. To do this, we claim that we need to know the principles of semantic restraint, as operated by context. If we could find these principles, we could help students more than by letting them induce from our test items what we cannot be explicit about. Thus instead of exhorting students to use context, we should show them how to, and this, to our knowledge, is not done, anywhere.

However, we believe it is possible to use insights into meaning from structural semantics in order to elucidate some of these principles. In conjunction with the use of insights from structural semantics (particularly from Lyons, 1969) in the vocabulary exercises we have developed in the Research and Development Unit, we have also incorporated what we consider to be an important methodological innovation, which is the use of nonsense words.

The methodological mistake of all previous exercises, but especially of the testing exercises, is to ask the students to

identify the meanings of real words. The objection to this is twofold: one, that some students may know the word itself anyway, and therefore will not be induced to learn the strategy supposedly being taught, and, second, that, regardless of what the teacher tries to teach, the student can ignore him, and go to the dictionary, whereas what he should be learning is how to avoid reliance on the dictionary. If, however, nonsense words, which approximate English words, are used, then the students cannot find the meaning in the dictionary. The only meaning a nonsense word can have comes from the context, which should provide a perfect illustration of the strategy being taught. Moreover, nonsense words are to be preferred to the use of blanks, since blanks do not have meaning, whereas words, even nonsense words, can acquire meaning. Also, using nonsense words in the exercise replicates more nearly the actual reading situation of the student coming across unknown words.

What follows are examples of some of the semantic relations used in exercises developed in the Research and Development Unit materials. Other semantic relations could be exemplified in the same manner.

1. Hyponymy

This is the relation pertaining between terms, one of which is included in the other. Thus 'animal - marsupial - kangaroo'. The more general term is the superordinate, and the less general terms (e.g. "kangaroo, wallaby, koala bear") are co-hyponyms. We can use this knowledge to construct exercises of the following type.

1. Michael gave me a beautiful bunch of flowers: roses, dahlias, marguerites, chrysanthemums, nogs and orchids.

The student is, as in all the following exercises, asked to guess the meaning of the underlined word, 'from the context', which is, of course, specially manipulated to indicate a certain principle of semantic organisation in text.

In the above example, the superordinate term is given, as an additional clue. In the next example it is removed:

2. Even in the poorest parts of the country, people usually have a table, some chairs, a roup and a bed.

In this case, students must identify semantic features of the unknown word from the meaning of the co-hyponyms. Note that the student is not asked to define the unknown word, but simply to say what he can infer about its meaning from the context. He is being introduced to the principle of vagueness, and being encouraged not to seek the 'meaning' of the word. In fact, he can't get such a 'meaning' since, as the word in question is a nonsense word, it does not exist.

Alternatively to the identification of features of hyponyms, students can be asked to identify the superordinate:

3. Over the last 20 years, our family has owned a great variety of wurgs: poodles, dachshunds, dalmatians, Yorkshire Terriers, and even St. Bernards.

II. Opposites

a) Incompatibility

This realtion is connected with the concept of hyponymy, in that co-hyponyms are in a sense opposites, or incompatible. For example, in the area of colours, if a certain colour is not red, then it might be blue, or yellow or green etc. Similarly, if a colour is red, then it is not yellow, or blue or green, etc. This leads to the following exercise:

4. If I don't buy a blue car, then I might buy a fobble one.

b) Antonymy

This relation refers to words like 'big' and 'small' sometimes called gradable adjectives. The interesting thing about this relation is that

'not big' does not imply 'small'

and it is possible to have sentences which are apparently contradictory, but in reality, are not, as:

A small elephant is a big animal.

It is possible to look at this relation in simple lists, where the position of the word in the list provides a clue to a se-

mantic feature:

5. Repugnant, horrible, ugly, plain, pretty, beautiful, fopple.

or in connected discourse:

6. These reactions procede from the group as a whole, and can assume a great variety of forms, from putting to death, corporal punishment, expulsion from the tribe to the expression of ridicule and the nurdling of cordwangles.

Of course, the unknown word need not be at one extreme or the other of the grade:

7. Catastrophic, terrible, bad, bungay, good, excellent.

c) Complementarity

This relation is that popularly called 'opposites', in that the negative of one term is automatically the other term.

Thus: 'not male' = 'female'

8. No, John isn't married, he's meed.

9. Well, if it isn't a mungle horse, it must be a female horse.

d) Converse

This is exemplified by the following:

If I give some things to Bill, then he receives it from me.

10. Smith bought the house from Jones for $20,000 who had paid $10,000 for it. Jones thus owced the house for $10,000 profit.

III. Synonymy

It is frequently claimed that true synonyms do not exist. This may well be true of the language as a system, but is pa-

tently untrue for any given text. In fact, synonymy is context-dependent, and for this reason, is often used as a cohesive device in text. Thus, synonyms are often identifiable in text by means of other cohesive devices, like anaphora:

11. If you asked an average lawyer to explain our courts, the nerk would probably begin like this: our frugs have three different functions. One blurk is to determine the facts of a particular case. The second function is to decide which laws apply to the facts of that particular durgle.

Or the synonym might refer, not to one word or phrase, but rather to a longer stretch of language, and thus becomes a summary word:

12. It used to be commonly believed that a person's intelligence was affected entirely by the environment in which a person was brought up. This phurgle was particularly common among people who might be thought of as liberals, and a great deal of effort went into attempts to prove that heredity had no influence. The usual subjects of such wandlobows were identical twins...

18. It was so dark that it was impossible to brockle more than 20 metres.

Another example of a notional relation - that of purpose - is the following:

19. In the Middle Ages, prisoners were often physically tortured in order to make them pogmortle.

This is not unrelated to the notion of instrumentality:

20. In the Middle Ages, prisoners were often tortured with a jubble, in order to extract confessions.

It should be emphasized that in many of these examples it is impossible to identify the 'meaning' of the word exactly. This agrees with the principle of vagueness, which we are aiming to teach students. One can, however, assign certain semantic features to the unknown word, even if one cannot be precise (and, of course, it is rarely that we need or want to be precise). Students are encouraged to look for these semantic features, by

asking questions about the unknown word like: Is it animal or human? Is it young or old? or other questions about whatever componential features the context permits one to recover.

Finally, one more type of meaning relation is exploitable, which we call, faute de mieux, pragmatic realtions.

At present this is unexplored territory, and the principles of the interrelationships are undiscovered. Research is continuing in the Research and Development Unit in an attempt to unearth some of the principles. Nevertheless, it is possible already to assert that what is involved is the assignment of semantic features to unknown words, from some feature of the contiguous elements.

We finish with three examples which we call pragmatic. The reader might like to attempt to assign features to the underlined words, and ask himself how he arrived at such an assignment:

21. Tension had been building up for the big event of the day, the Women's 1500 metres. The two compusols, Alison Gould and Marcia Baker, were bitter rivals.

22. Mrs. Mitz did not want to go to the beach, and played a long drawnout delaying game, which made Albert anxious and troved, but at last she gave in.

23. Myra fixes up her room, like many kids her age, only after being cludgeoned by her mother; she leaves the breakfast dishes, refuses to do the shopping, ...

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