The Semantic Basis of Syntactic Properties
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THE SEMANTIC BASIS OF SYNTACTIC PROPERTIES

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1. The 'semantics prior' approach

The communication of meaning is the main business of language, the paramount reason for its existence. A speaker has in mind some meaning - a description of an event, or an emotive feeling, a hope, a wish or a regret - and codes it in grammar and clothes it in words simply as a channel for communication. The hearer then extracts some meaning from what he hears. Meaning is what we start with, in the use of language, and where we finish. This should surely also apply in linguistics, the scientific study of language.

I espouse a 'semantics prior' position. This is not to underestimate grammar, nor the complexities of grammar. But I maintain that we cannot understand grammar, and the way speakers use grammar, unless we approach the matter from a semantic angle.

It is useful to work in terms of 'semantic types', sets of lexical items that share a common semantic element and also show similar syntactic and morphological properties. All the lexical words of a language can be grouped into a number of semantic types (with a certain amount of overlapping membership). These semantic types are almost certainly universal; that is, every language has a set of MOVE words (e.g. *come, run, take* in English), a set of COLOUR terms (*black, white, red,* etc), a set of KIN words (*mother, uncle,* etc). These sets - and a score or so more - constitute 'natural classes' in each language.

In writing the grammar of any language a linguist will recognise a number of word classes (or parts of speech). There will be some large, open classes - Noun, Verb, and often also Adjective. The recognition of word classes for a particular language is based on morphological and syntactic criteria particular to that language. But then word classes can be cross-identified between languages. We talk of the Noun class in English, in Latin, in Dyirbal, and indeed in every other language. The criterion for identifying a lexeme as a noun varies between languages - in Latin a noun inflects for number and case, in Dyirbal a noun inflects for case and co-occurs with a 'noun marker' that shows a fixed gender choice, in English a noun is defined partly in terms of its potential for co-occurrence with an article.

Word classes are identified between languages - and given the same universal labels 'Noun', 'Verb', 'Adjective' - on semantic grounds. That open class, identified on grammatical criteria internal to a particular language, which includes the semantic type OBJECTS (terms for flora and fauna, body parts, etc) will be named the Noun class. In most languages Noun also includes the semantic type KIN, and in many a number of abstract concepts (*beauty, truth*

etc in English). The Verb class always includes the semantic types MOVE, STAY (*sit, stand, lie, put down,* etc), HIT (*hit, cut, burn,* etc), GIVE (*give, lend, donate,* etc), TELL (*speak, tell, ask, command,* etc). Note, though, that some semantic types show considerable variation in their word class affiliation from language to language - LIKE (*like, hate, love,* etc) is in the Verb class in English but belongs to the Adjective class in some languages (literally 'it is likeable to me') e.g. Japanese, and is in the Noun class in yet other languages (literally 'I have liking for it') e.g. the Australian language Yidiɲ.

I first introduced the idea of semantic types in the course of a cross-language study of Adjectives, called 'Where have all the adjectives gone?' (Dixon 1977, 1982). Many languages are like English, Latin and Dyirbal in having an open word class, distinct from Noun and Verb, that includes the semantic types AGE (*new, young, old*), VALUE (*good, bad, lovely,* etc), COLOUR, DIMENSION (*big, little, wide, long,* etc), PHYSICAL PROPERTY (*hot, cold, sharp, heavy, rough,* etc), HUMAN PROPENSITY (*jealous, rude, loyal, clever,* etc) and a few more. In a number of languages (e.g. Chinese) there is no distinct Adjective class, and these types fall together with MOVE, STAY, GIVE, TELL etc in the (macro-)Verb class. But there are a fair number of languages that have just a small closed class of Adjectives, with from six or eight to a few score of members. These closed Adjective classes typically involve most or all members of the types AGE, VALUE, COLOUR and DIMENSION: in languages of this kind the PHYSICAL PROPERTY type most often belongs to the Verb class (e.g. 'it heavies') while the HUMAN PROPENSITY type falls into the Noun class (e.g. 'he has jealousy').

But semantic types are useful not only for cross-language comparison. In 'Where have all the adjectives gone?' I described how the various semantic types making up the Adjective class in English show distinct grammatical behaviour, in terms of co-occurrence with derivational affixes such as *un-, -ish, -en,* position in noun phrase structure, whether there is a derived adverb, and of what type, etc (Dixon 1982:15-34).

This paper describes a first attempt to investigate and explain the syntactic properties of verbs in English, in terms of the different semantic types making up the Verb class. I have looked in some detail at over a thousand English verbs, grouping them into semantic types on the basis of their semantic and grammatical similarities and studying, for each type, the possibilities of case frames, passives, causatives, reflexives, nominalisations, topic-manner constructions (see Dixon 1976), and occurrence in constructions of the form *have a* V/*take a* V and *give a* V (e.g. *take a walk, have a laugh/cry, give* X *a kiss/push*). As an illustration of the methodology involved I discuss here the varieties of complement clauses that are possible for different semantic types in the Verb class (and for different verbs within these types). The results are preliminary and quite tentative; this should be regarded as a sample study, to illustrate a particular semantically-based approach to

linguistic description and explanation.

2. Verbal complements

In every language there are some semantic types in the Verb class (and often within the Adjective class too) which take complement clauses. These types generally include TELL, SEE (*witness, hear, observe,* etc), MAKE (*cause, force, hinder,* etc), WANT (*desire, wish, hope, need,* etc), BEGIN (*start, commence, cease, finish, continue,* etc). (Note, however, that in some languages the last three types may be realised through verbal affixes, rather than distinct lexemes.) Languages differ in how many varieties of complement clause they possess - Noonan (forthcoming) mentions that Irish has only two while Lango has four. I shall be concentrating here on the three main complement constructions in English - THAT, (FOR) TO, and ('S) ING.

Some English verbs take only one kind of complement - just THAT (for instance, *ensure*), just ING (*finish, interrupt*) or just TO (*want, fail*). Others may take two complement alternatives - TO or ING (*try, begin*), TO or THAT (*desire, persuade*), ING or THAT (*boast, dislike*). And there are some that can occur with all three (e.g. *propose, love, plan*).

How do users of the language know which complement to use with which verb? Grammarians such as Rosenbaum (1967) simply list verbs that take each complement; their lists appear to be semantically heterogeneous and essentially arbitrary. This could be taken to imply that speakers have simply to 'learn' which complement a given verb takes (in the way that morphological irregularities have to be learnt), that they just keep their ears open, after a while note that *ensure* has been heard with a THAT complement but not with TO or ING complements, and then mark it '+THAT, -TO, -ING' in their mental lexicon.

This, plainly, is not what happens. Language users do operate with general principles in deciding what complement(s) may be used with a specific verb, and these general principles must be largely semantic.

I assume the following: that it is possible to predict the complement(s) a verb may take from knowing (a) the kinds of complement clause the language operates with, and their semantic characterisations; (b) the semantic type to which a word belongs, and its further semantic specification within that type; (c) the complement possibilities for that semantic type in that language; and (d) relevant facts about the syntactic organisation of the language i.e. its possible syntactic structures and constraints.

The remaining sections of this paper illustrate (c) and (a), in that order.

3. Some semantic types and the complements they take

Each semantic type has, in a particular language, certain 'norm' syntactic and morphological properties, which every word in the type exhibits. In addition, there will be a number of further

grammatical properties that apply only to some words in that type; as we shall shortly see there can be a variety of explanations for which words have which properties.

These remarks can be exemplified for a selection of types from the English verb class.

(a) verbs in the DECIDE type such as *decide, determine, resolve, choose* take both THAT and TO complements (other verbs in this type such as *select* and *pick (out)* take neither complement).

(b) all members of the WANT type (*want, desire, wish, need, require, hope, intend,* etc) take TO complements, and all but two also take THAT complements. The two verbs that do not take THAT complements are *want* and *need* - what can be the explanation for this? It may be that *want* and *need* have the strongest and 'most demanding' meanings (*want* in comparison with *wish* and *desire*, and *need* in comparison with *require*) and are thus restricted to the pragmatically strongest complement choice. It is interesting to note that in Indian English (my own observations) this 'syntactic gap' has been eliminated, with both *want* and *need* taking THAT as well as TO complements.

(c) all verbs in the BEGIN type can take ING complements but only some of these may also occur with TO clauses - *begin, start, continue* and *cease* do, whereas *commence, finish* and *complete* don't. I have shown (Dixon 1976; 1982:144-51) that some of these verbs involve 'subject-orientation' and others 'object-orientation'. Thus

(1) John has finished shelling the peas

implies that there are no more peas to be shelled i.e. the discontinuation of the activity is related to the object noun phrase; in contrast

(2) John has ceased shelling the peas

clearly indicates that the discontinuation was entirely due to the referent of the subject noun phrase.

All the verbs in the BEGIN type that can take a TO complement have (strong or weak) subject orientation; those that cannot have object orientation. This interrelates with the semantic effect of this variety of TO complement, as discussed in the next section.

(d) the MAKE type is particularly interesting. All three complement varieties are represented, but each verb takes just one of them. This will be explained, on semantic grounds, in section 4. *Cause, force, allow, permit* imply that the subject did something specifically to expedite the activity described in the complement clause; these all take TO complements. (*Make* and *let* must omit the complementiser *to*, although *make* but not *let* has *to* in a passive construction. This *to* omission may just be an irregularity with a diachronic explanation - like the plural of *mouse* being *mice* - that has simply to be learnt by users.) *Prevent, spare* and other verbs have the opposite semantic effect, and take ING complements. *Ensure* implies that the subject just makes certain that something necessary has been done, treating the action described by the complement

clause as an item and not referring to any of the details of how it was done; this verb takes a THAT complement.
(e) the most pervasive complement clause for the LIKE type is ING, which occurs with all or almost all of the verbs from this type (the possible exceptions include *worship, prize* and *treasure*). Almost all LIKE verbs can also occur with a rather special type of THAT clause which also includes *it* immediately before the complementiser (*John likes it that Mary goes to church each Sunday*); the verbs that seem less than fully at home with THAT complements include *enjoy, approve (of)* and *favour*. And then just a few verbs from this type may also accept TO complements (e.g. *like, love, hate, prefer*) whereas others can't (*dislike, loathe, abhor, value*). In connection with the failure of *dislike* to follow *like* in taking a TO complement, we can note that scarcely any verb with prefix *dis-* permits a TO complement (compare *disagree, disbelieve, disclaim, discontinue, disprove* and *disallow* with their positive counterparts).

There is a semantic difference between these three varieties of complement as they occur with *like, love, hate,* etc; but currently I have no explanation for why only some verbs in this type take THAT, and then only a subset of these take TO. It may simply be that the most frequently occurring verbs in the LIKE type - those with the most general, superordinate meanings - have the widest syntactic possibilities, a tendency that is found in all languages.

It will now be seen that there can be varying reasons for why only some members of a type show a particular property. It is often semantically-determined (only subject-oriented verbs of the BEGIN type taking TO complements); or there may be some language-general constraint (scarcely any verbs with prefix *dis-* taking TO complements); or it may be simply a matter of only certain superordinate verbs having some property (*like, love, hate* and *prefer* taking TO complements) or else not showing a property (*want* and *need* not taking THAT complements).

Viewed simply from the syntactic angle of 'what verbs take certain complements', heterogeneous lists are obtained that have little apparent semantic basis. But approached from the semantic angle, we see that all members of a certain type may map onto a certain syntactic complement choice, some onto another possibility, and so on. Thus, TO complements occur with all verbs from the DECIDE type that accept any complement at all; with all verbs of the WANT type; with all BEGIN verbs that show subject-orientation; with MAKE verbs where the subject plays a direct and positive role in accomplishing something; and with a few LIKE verbs that have wide, inclusive meanings. And similarly for ING and THAT complements.

There are of course other semantic types associated with the Verb class in English that take complement clauses. Our remarks could be extended to SEE (*recognise, witness, hear,* etc); to TELL, which is like a meta-type spanning several basic types, e.g. *order* and *persuade* are like MAKE, *promise* is like *intend* from the WANT type, *describe* like *witness* from the SEE type, and *inform* like *realise* from the THINK type; and so on. But what has been said

should adequately demonstrate the viability of this approach to linguistic description, and its potential for insightful explanation.

4. Semantic basis of English complementation

Each semantic type has a distinctive semantic character, and complements take on a different semantic aspect with verbs from different types. Nonetheless, it is possible to discern some recurring meaning features of the different complement varieties, over the whole language.

The discussion here is limited to THAT, ING and TO complements, leaving aside the important class of WH- complements, and also a few minor complement varieties (e.g. bare verb stems with verbs of the SEE type, such as *I saw Mary kick John*), as well as the semantically significant possibility of having *for* included with a TO complement, for certain verbs (Bresnan 1979:61-95 has an illuminating discussion of this, and also of the semantics of WH- and THAT complements). The syntax of complements - whether they fill object, oblique or subject slots, and the possibilities for coreferentiality and deletion - is an important and complex matter, which must be the topic for a separate study.

THAT clauses are like miniature sentences, allowing the full range of tense, modal and aspect choices, and not permitting deletion of the subject noun phrase. A THAT complement essentially refers to an activity or event or state as a single unit, with no reference to its internal constitution or time duration. Using the graphic symbol ⟼ to indicate the event or situation, we can represent a THAT complement by ⟮⟼⟯. Typical examples include *ensure* from the MAKE type and *report* from TELL:

(3) John ensured that the horses were given sufficient food

(4) John reported that the horses were given sufficient food

In the case of (3) John need not have fed the horses himself; he just made certain that someone had.

ING complement clauses are like TO clauses in not being able to include simple modal verbs or tense inflection; they can contain *be + ing*, and *have + en*, which realises tense as well as aspect in these two varieties of complement clause. The subject in an ING complement may be marked by *'s* with some matrix verbs, and it may often be deleted. The *ing* verbal inflection in English has rather wide uses - we can distinguish ING complement clauses (*I can understand Mary's tearing up her thesis*), gerundive verb+*ing* which functions as a nominal head (*I watched Mary's washing of her hair*), and also relative clauses involving a progressive *be + ing* element, where both the WH- relativiser and the verb *be* can be omitted (*He accosted the girl who was washing her hair in the fountain* reducing to *He accosted the girl washing her hair in the fountain*). Each of these types of *ing* construction can merge into the others (and, generally, syntactic indeterminacy correlates with meaning convergence).

An ING complement refers to all or part of some on-going

activity, noting the way in which it unfolds. In contrast to the meta-nature of a THAT clause, which treats an event as an item, an ING clause is directly descriptive, investing the event with duration and structure. Compare

(5) I observed that Mary (had) struck John

(6) I observed Mary's striking John

(5) suggests that the observer simply knows that the event had taken place - he could have inferred it from seeing the bloody stick in Mary's hand, John's wound, and the expressions on their faces. (6) says far more, that the observer actually witnessed the event, saw what was done and how - the nature and order of actions making up the event. Having represented THAT clauses as  we can show ING clauses by something like  or , indicating that this variety of complement actually focusses on the internal constitution of all or part of the activity.

Compare THAT and ING subject complements, where the potential meaning difference is explained in a parenthetical continuation:

(7) That Mary sings the blues delights John (he doesn't care for that sort of music himself, but he thinks it is a good thing for Mary to do)

(8) Mary's singing the blues delights John (he could listen to her all night)

Some abstract nouns refer to an activity, and others to the end-result of that activity; the former correspond to ING and the latter to THAT complement clauses, as in

(9) John heard Rocky('s) beating Big Al = John heard the fight

(10) John heard that Rocky had beaten Big Al = John heard the result

TO complements are semantically the most varied of all. The word *to* can function either as a complementiser or as a preposition. As a preposition it covers two distinct (if related) meanings - the 'motion towards' sense, as in *I'm going to San Francisco*, and the indirect object function, as in *Mary gave/showed a book to John* (some languages have distinct allative and dative case markings for these two functions). We also need to recognise at least two varieties of TO complement construction.

The first kind of TO complement clause refers to some as yet unrealised activity; the TO indicates the desirability, necessity or inevitability of its taking place. This sort of TO has similar semantic effect to a modal in a main clause or a THAT complement. Indeed, many verbs that take TO_1 also occur with a THAT complement that usually or always includes a modal, as

(11) I wish that John would go / I wish John to go

(12) I recommend that John should go/ I recommend John to go

Decide takes this kind of TO complement and it may also take a THAT complement with the full range of aspectual possibilities (i.e. with or without modals) e.g.

(13) I decided that I would go

(14) I decided that I was sick

But, interestingly, only those THAT clauses which include a modal show corresponding TO complements. Alongside (13) there is

(15) I decided to go

but there is no TO correspondent of (14). (*I decided to be sick* relates to *I decided that I would be sick*, rather than to (14).)

There is another kind of TO complement that is semantically quite different and involves a judgment concerning the subject of the TO clause. Thus

(16) I know that Mary hit John / I know Mary to have hit John

(17) I know that Mary is clever / I know Mary to be clever

It is interesting to note that *know* can, like *decide*, take a THAT clause with any or no modal specification. But if the THAT clause includes a modal, as in

(18) I know that Mary may/must/should be clever

then there is no corresponding TO complement clause, as there was for (16-7). (TO complements cannot themselves include a modal, but this did not hinder the occurrence of TO equivalents in (11-2).)

Compare (13-4) with (17-8). Both *decide* and *know* can take THAT complements; they both take TO complements but of completely different semantic subvarieties. For *decide* there is a TO_1 complement corresponding to a THAT clause with a modal, in (13,15), but not one without a modal, in (14). For *know* there is a TO_2 complement for a THAT clause without a modal, as in (16-7), but not for one with a modal, as in (18). This demonstrates the different semantic effects of TO_1 and TO_2 complement varieties.

TO_2 complements are rather limited; they are always most felicitous when the complement clause verb is *be*, as in (17) (and for some verbs, e.g. *understand*, it is difficult to get a TO_2 complement with any other verb). We could represent these complements graphically as :⊢⊣.

TO_1 complements are very frequent. We can employ an arrow to indicate the 'potentiality' marked by TO_1 i.e. ⇀⊢⊣ or →⊢⊣. The difference between TO_1 and ING complements is very clearly shown with *try*:

(19) John tried balancing the ball on his head

(20) John tried to balance the ball on his head

(19) implies that John actually did balance the ball on his head for a period of time, perhaps to see whether he liked the experience, i.e. ⊖⊢⊣. In contrast, (20) might be used when he tried to get the ball to stay on his head but was unable to achieve this i.e. →⊢⊣ (*Attempt* is another verb in the TRY type but it has a more restricted meaning than *try* and can only occur with a TO_1, not an ING,

complement.)

Similar remarks apply to verbs from the BEGIN type. Compare

(21) Mary began hitting John

(22) Mary began to hit John

For (21) to be appropriate Mary must have rained at least a few blows on John, i.e. ⟲⊣. But (22) could be said when she had merely raised the stick but had not yet brought it down upon his head (perhaps she will, or perhaps she won't) i.e. ⟶⊣. The semantic effect of TO_1 explains why this complement variety can be used only with subject-orientation verbs from the BEGIN type. The ⟶ indicates volitional action by the subject to involve him/herself in the activity, with *begin, start* and *continue*, ⟶⊣. With *cease* (as in *John ceased studying at 3 p.m.*) the ⟶ indicates volitional action by the subject to uninvolve him/herself from the activity i.e. ⊣⟶.

Bolinger (1968) includes a perceptive discussion of the potential semantic contrast between ING and TO complements, suggesting that TO refers to 'hypothesis or potentiality' while ING is likely to mark 'reification'. Thus *afraid to jump*, where the speaker has fears about voluntarily undertaking a course of action, but *afraid of falling* (not **afraid to fall*) when describing a non-volitional activity.

There are some verbs that take all three complement varieties - THAT, ING and TO_1 - but with definite meaning differences. Compare

(23) I remembered that I saw the student (but had no recollection of the details of our interview)

(24) I remembered seeing the student (and could have told you exactly what he said)

(25) I remembered to see the student (but by the time I looked in the waiting room he had given up and gone home)

and

(26) I like it that Mary recites poetry (because she goes out reciting every Friday night, and I get peace to work out my betting system for the following day's races)

(27) I like Mary('s) reciting poetry (I enjoy listening to her)

(28) I like Mary to recite poetry (I don't care to listen myself, but it's good for her and always puts her in a good mood afterwards)

It must be emphasised that if a verb allows more than one complement construction there is usually a degree of substitutability between them. That is, there are certain situations in which any of (26-8) or (23-5) or (21-2) or (19-20) or (7-8) could be used perfectly acceptably. The range of meaning and use of *remember*+THAT, *remember*+ING and *remember*+TO will overlap. But they will not coincide - there are some situations in which only one complement choice could be

appropriate.

We have said that TO_1 involves an agent moving towards some unrealised activity. One further point to note is that a TO_1 complement can only be used if the subject wants the activity to take place; if it is something that is not (or not yet) wanted then only an ING clause will be permitted. Compare

(29) I planned/hoped/intended for Mary to go

(30) I deferred/postponed/delayed Mary's going

A similar contrast applies to verbs from the WANT type. When there is positive desire for some eventuality a TO_1 complement is appropriate:

(31) I want/wish/desire for Mary to come home

But with a verb that has the opposite semantic orientation, an ING complement is preferred:

(32) I dread Mary('s) coming home

(*Dread* does have limited possibilities with THAT and TO complements, but corresponding to the sense of (31) we must use an ING clause, as in (32).)

These complement possibilities can now be compared with those for *fail* and *succeed (in)*:

(33) John failed to hit the target

(34) John succeeded in hitting the target

Succeed refers to a definite event from the past, something that has happened; only an ING complement is possible. *Fail*, on the other hand, describes something that the agent wanted to do, but was unable to achieve, the TO_1 complement matching the 'wanting' component of meaning.

With verbs referring to speed of action the different complement possibilities again reinforce the meanings of the individual verbs:

(35) John hastened to build the hut

(36) John dawdled over building the hut

Hasten, taking a TO_1 complement, marks the agent's wish to get on with some activity, ⊢⟶⊣. *Dawdle*, in contrast, indicates that the agent is involved in the activity, ⊢⊖⊣, but not with any real eagerness; this semantic profile fits well with an ING complement. (Note too that the preposition *over* in (36) also reinforces the meaning of *dawdle*, just as the preposition *in* in (34) helps emphasise the completive meaning of *succeed*.)

We remarked in section 3 that each verb from the MAKE type selects just one variety of complement. *Ensure* involves a general overseeing that something be done, and takes a THAT complement. Verbs like *cause, force, allow* and *permit* indicate positive activity on the part of the subject to bring about something that he wants to

happen; they all take TO_1 complements. Their negative counterparts from the same semantic type, such as *prevent, hinder* and *stop* require ING complements, with an optional preposition *from*:

(37) I caused John to build the hut

(38) I prevented John (from) building the hut

Note that the complement clause subject, *John*, has been raised to be object of the main verb in (38) just as it has in (37).

Within the TELL type we find verbs like *agree*, and also negative counterparts *refuse* and *decline*, all taking TO complements. Anna Wierzbicka (private discussion) has suggested that it is the 'want' component in *refuse* and *decline* (someone else wants that person to do something that he won't do) which is responsible for their taking a TO complement.

The verb *forbid* has, during most of the history of English, been able to occur with either TO or (*from*+)ING complement varieties; but during the last century or so the (*from*+)ING alternative has fallen into disuse, bringing *forbid* more into line with *refuse* and *decline*.

The semantic contrast between TO_1 and ING complements in English finds correspondences in some other languages. In Dyirbal (from North Queensland, Australia) there are two verbal affixes that can serve to mark verbal complements: (a) -ŋu is used both on the verb in a relative clause, and also - rather like ING in English - to mark complement clauses with verbs such as 'blame', 'see' and 'regret'; (b) purposive inflection -li can occur on a main clause verb and then has a modal-like meaning e.g. ŋaja yanu-li 'I have to/ ought to/want to go'; it can link together two clauses, rather like English *in order to* e.g. ŋaja walma-nyu yanu-li 'I got up in order to go out'; and it can also mark a complement clause - very much like TO_1 in English - with verbs like 'promise', 'tempt', 'ask' and 'like'.

Dyirbal has verbs giga- 'make do, tell to do' and its opposite jabi- 'prevent from doing, tell not to do'. Giga- must take a -li complement (parallel to TO_1 in English) e.g.

(39) ŋaja bayi giga-n yanu-li
I-SUBJECT him-ABSOLUTIVE tell to do-PAST go-PURPOSIVE
I told him to go

In contrast, jabi- must take a -ŋu complement (parallel to ING in English):

(40) ŋaja bayi jabi-n yanu-ŋu
I-SUBJECT him-ABSOLUTIVE stop-PAST go-RELATIVE
I stopped him (from) going

In the course of field work on Dyirbal I tried by elicitation to see whether jabi- could also occur with a -li complement. When I asked whether it was possible to say ŋaja bayi jabin yanuli the informant thought a moment and said

(41) bayi yanuli, ŋaja jabin

was possible, and would mean 'He wanted to go but I stopped him'. No, I persisted, what about ŋaja bayi jabin yanuli? The informant replied that it was a possible sentence, but he said it with an intonation break after jabin:

(42) ŋaja bayi jabin, yanuli

and stated that it could only mean 'I tried to stop him, but he still went'. In (42) yanuli is a coordinated clause, not a complement clause to jabin. A complement clause with jabi-, referring to the activity that is prevented from occurring, must be of the -ŋu variety.

5. Conclusion

Which complement variety a given verb (in a particular language) takes is not an arbitrary matter, but depends on the meaning of the verb and the meanings of the available complements. To consider each verb individually - looking at its meaning and complement possibilities - would be a long-winded and unrevealing task.

I have suggested, in this paper, working in terms of natural lexical classes (with overlapping memberships) which I term 'semantic types'. Each semantic type has certain semantic properties which apply to all the words in that type. There will, in addition, be further grammatical properties that apply only to a certain subset within the type; these are also (in most instances) semantically motivated.

Working in terms of semantic types enables us to see general patterns of correlation between semantic and syntactic properties, and then to further refine this description so that an exact specification is provided for the grammatical status of each word. (For, just as no two words have exactly the same meaning, so no two words will have precisely the same set of grammatical properties.)

The methodological approach that has here been illustrated for verbal complements in English applies equally to all other syntactic and morphological properties - of verbs, adjectives and nouns. And, once the semantic and grammatical correlations are established for a representative sample of individual languages, it may be possible to generalise, perhaps uncovering universal correlations of various kinds.

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