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LOCAL COHESION IN CHINESE AND ENGLISH: an approach to clause combining

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There is good evidence to suggest the position that the term "subordination", with all of the things that term has been taken to involve, is not one which is useful for linguistic description; this is the position which Haiman and Thompson have taken in their paper (this conference). In this paper I will suggest a new approach to clause-combining which doesn't depend on the traditional "subordination/coordination" dichotomy, and argue that this approach gives us more insight into the universal (both cross-linguistic and cross-channel) basis for clause-combining than the old approach did, as well as highlighting some interesting differences.

It is commonly observed that languages can differ from each other in the amount of "subordination" they use; that is, some languages, such as Chinese, seem to be less hypotactic than others, such as English. In Chinese, while relative, adverbal, and some kinds of complement clauses are marked as being contained within another clause, many other clause types which are reduced or otherwise overtly marked as incorporated[11] in English show no such marking in their Chinese translation. Thus there is no direct evidence for a hierarchical analysis for these clause types. The fact that Chinese allows zero pronominalization compounds the problem, since it can't be determined on the basis of overt criteria whether a missing NP is a syntactically controlled null element, or a pragmatically controlled zero anaphor. In the following examples (from Li and Thompson 1981, chapter 21), each of the two clauses in the Chinese is independent, while the English gloss contains one clause marked as dependent by the morphology. I indicated this in the examples by putting a slash between the clauses in the Chinese, and capitalizing the subordinating morphology in the English.

Purpose clause:

1) tā shàng lóu / shūjiào
she ascend story sleep
"she went upstairs TO sleep"

Gerund:

2) tā niàn shū / xīn hěn zhuān
she read book heart very engrossed
"WHILE studying, she's very engrossed"
Subject clauses:

3) zài zhèlǐ tíng chē / fàn fǎ
   at here park car illegal
   "parkING here is illegal"

4) wǔ ge rén zuò yījīa mòtochē / zhēn wéixiǎn
   five people ride one motorcycle really dangerous
   "FOR five people TO ride one motorcycle is really dangerous"

Object clauses:

5) wǒ yào / tā guò lài
   I want she over come
   "I want her TO come over"

6) wǒ jiānchí / wǒ méi fàn fǎ
   I insist I not break:law
   "I insist THAT I didn’t break the law"

7) wǒmen jǐnzhī / chōuyān
   we prohibit smoke
   "we prohibit smokinG"

This difference between Chinese and English clearly reflects a difference in the morphological resources the two languages have for marking incorporation. Even within a given language with a given set of resources, however, there may be dramatic differences in the extent to which these resources are exploited under different circumstances. It has often been observed that planned discourse uses more marked incorporation than unplanned discourse, adults use more than children, writers use more than speakers, and so on (Ochs 1979; Chafe 1982). This fact has led several authors to the conclusion that the clause, rather than the potentially multi-clausal sentence, is the most relevant unit of analysis for spoken language (Crystal 1979; Bivon 1982).

The possibility of this kind of difference suggests another question: does a difference in the amount of incorporation reflect a difference in the size of the units that speakers use to encode their ideas, or in the degree of cohesion (or "tightness") which obtains in discourse? I will suggest that the answer to this question is "no". Through the study of the ways in which clauses are grouped into sentences in both spoken and written Chinese and spoken and written English, I will show that in fact all of these text types are very similar in the amount of cohesion they exhibit between adjacent clauses, although there are differences in how this cohesion is
signaled. This suggests that while it may be accurate to say that languages can differ in the amount of overt incorporation they use, they don't differ nearly as much in the amount of local cohesion they have; and this is true not only across languages, but also across channels in a given language.

It might be thought that the way to express this kind of cohesion is in terms of the traditional alternative to subordination, namely coordination. In a sense this is what I will propose, if "coordination" is taken to refer to "a non-hierarchical relation between adjacent clauses". The problem which remains under this proposal (and which I will address below) is how to identify this relation. When two independent clauses are juxtaposed without overt marking, there is always ambiguity (from a syntactic point of view) as to whether they should be taken as one compound unit or as two separate ones. The presence or absence of "coordinating conjunctions" such as "and", "but" and "however" doesn't solve this problem for the analyst; these conjunctions are not really clause connectors, but rather rhetorical operators which express relationships between rhetorical elements of any size from NPs to paragraphs, while the kind of relationship of concern in this paper is that which obtains between adjacent clauses. Therefore the traditional sense of coordination is too global to be relevant to the issue of clause-combining.

Thus, we need a way to measure local cohesion which combines aspects of both incorporation and coordination, and is independent of a particular language or a particular channel. In a study of the correlates of intonationally and punctuationally marked groups of clauses (Cumming in press), I found three ways in which a speaker can group adjacent clauses: argument sharing (the relationship between clauses which share an understood argument which is only expressed overtly in one of them), complementation (one clause is understood as an argument of another clause), and cases of incorporation in which one clause is marked by the morphology as a modifying element within another clause, as with adverbial clauses and relatives. (I will refer to clause groups signaled by these devices as "shared argument groups", "complement groups" and "part-of groups" respectively.) Thus the English sentences in (1-7) would all be examples of part-of groups, but the Chinese versions would be examples of either shared argument groups (example 1) or complement groups (examples 3-7). Of these kinds of cohesion, part-of groups and complement groups would traditionally be called cases of subordination, while shared argument groups might be considered either subordination, coordination, or neither. All three kinds of clause grouping can be discovered in any language on the basis of fairly overt criteria[21].

In the texts I looked at, groups of clauses formed by the devices mentioned above tended to overlap to form clusters, which I call "cohesion clusters". The distribution of these
cohesion clusters is what turns out to be similar across text types, while the internal makeup of the clusters varies. Cohesion cluster boundaries also tended to coincide with "sentence" boundaries marked by punctuation in writing and intonation in speech, which I take to support the view that these clusters represent units real to the speakers of a language. An example of a cohesion cluster:

B (a) zǒu le yī hou leave after

(b) neige..., jiushì dàqiú de neige rén that just hit ball REL that person

(c) gāngcái méiyǒu dòng just now have: not move

(d) zhège shíhou hūrán kàndào mǎlù zhōngjian this time suddenly see road middle

(e) neige xiǎoháizi gāngcái dàizhe de yī dǐng màozi that child just now wearing REL one CL hat

(f) diào zài neige... lù de zhōngjian. fall at that road POSS middle

"After he leaves, that guy who was hitting the ball and didn’t do anything a while ago, now (he) suddenly sees in the middle of the road, a hat which that kid was just now wearing has fallen in the middle of that road."

In this example, clauses (a)-(d) form a shared argument group (indicated by the solid circle), since they all share a single argument (dàqiú de neige rén), as do clauses (e)-(f) (yī dǐng màozi). Since (a) is marked as a time clause (by yīhou) and (b) as a relative clause (by de) they both form a part-of group (indicated by the dotted circle) with (c); and similarly, the relative in (e) makes it a part-of group with (d). Since these groups overlap, all the clauses together constitute one cohesion cluster.

Having divided the clauses of a text into groups and thus identified the cohesion clusters as in this example, it becomes possible to compare texts in order to determine the relative amount of cohesion they contain. I chose pear film narratives[3] for the spoken texts in both languages and narrative excerpts from fiction for the written texts[4]. The following table gives the results of this comparison. The
values given in the left-hand column represent the number of
groups of each sort divided by the number of clauses in the
text.

**Cohesion Clusters:**
Spoken Chinese .46 ################################################################################
Spoken English .44 ################################################################################
Written Chinese .40 ################################################################################
Written English .36 ################################################################################

**Shared Argument Groups:**
Spoken Chinese .25 ################################################################################
Spoken English .20 ################################################################################
Written Chinese .24 ################################################################################
Written English .30 ################################################################################

**Part-of Groups:**
Spoken Chinese .12 ################################################################################
Spoken English .13 ################################################################################
Written Chinese .13 ################################################################################
Written English .27 ################################################################################

**Complement Groups:**
Spoken Chinese .10 ################################################################################
Spoken English .08 ################################################################################
Written Chinese .09 ################################################################################
Written English .08 ################################################################################

There are several points of interest brought out by these
results:

1. The difference between spoken and written English seems to
be greater than the difference between spoken and written
Chinese, as shown in the figures for all groups except the
complement group. This may very well be due to the fact
that the Chinese written texts were taken from modern
authors whose work reflects the influence of a literary
movement (the "May Fourth movement") which, in a conscious
revolt against the archaic language of imperial
China, attempted to keep the written language as close to
the spoken vernacular as possible.

2. Written English has a much higher proportion of part-of
groups than any of the other three text types. This
reflects the observations made above about the relative
predominance of morphologically-marked incorporation in
written English; the relative prominence of the
shared-argument groups in written English reflects this too,
since most subordinating strategies in English involve the
"reduction" of incorporated clauses by eliminating arguments
as well as the addition of morphological markers, as in
examples (1), (2), (5), and (7) above. The fact that spoken
English is very similar to Chinese with respect to the proportion of part-of groups bears out the idea that spoken English is significantly less hypotactic than written English.

3. The high proportion of shared argument and part-of groups in written English accounts at least in part for the fact that written English has somewhat fewer, longer cohesion clusters (and hence more cohesion) than any of the other text types. However, it is striking that the difference in overall cohesion is greater between the written and spoken texts in each language than between the two languages; thus it seems that cross-channel differences are more important than cross-linguistic differences in determining the overall amount of cohesion.

Even with all of these differences, the extent to which the four text types are similar with respect to the overall distribution of cohesion as indicated by the proportion of cohesion clusters is significant, the difference being not greater than ten percent. Thus, it seems that there really is no direct connection between the amount or variety of incorporation a language has in its syntactic repertoire, and the degree to which speakers of the language tend to present groups of clauses as cohesive units.

NOTES

1. In the spirit of Haiman and Thompson's paper, and in order to avoid the multiple connotations of the term "subordinate", I will use the term "incorporated" to refer to certain clauses which are taken to be "part of" another clause, either for morphological or syntactic reasons.

2. Of course, some decisions must be made about which features of a language to compare. Since English doesn't share with Chinese the possibility of zero pronominalization contrasting with the use of a full pronoun, a decision had to be made whether to treat adjacent clauses with coreferent pronouns in the English texts as shared argument groups or not. My counts revealed that in fact English pronouns do act rather like Chinese zeros with respect to the distribution of local cohesion, so I counted them the same way. (See Cumming (in press) for a discussion of the advantages of the two alternatives.)

3. These are oral narratives obtained by showing subjects a short film which doesn't contain any language, designed by Chafe et al. (Chafe 1980), and asking them to tell what happened in it immediately afterwards.

4. The English peer film texts are from the appendix of Chafe 1980; Mary Erbaugh gave me access to the Chinese version, which she collected and had transcribed in Taiwan. English written text is from Beyond This Point Are Monsters, by
Margaret Millar: Chinese is from Dong Ye by Bai Xian Yong, and Zhu Fu by Lu Xun. My suggestions below concerning the differences between the spoken and written texts should not be taken as suggesting that I consider channel to be the most important factor in distinguishing these text types; there are of course many differences, including degree of planning, formality, audience, etc.

REFERENCES


