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Author(s): James D. McCawley

Proceedings of the Fourteenth Annual Meeting of the Berkeley Linguistics Society (1988), pp. 176-187

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The comparative conditional construction in English, German, and Chinese James D. McCawley University of Chicago

The first work in which I have seen English sentences like (1) given a treatment that goes significantly beyond mere mention of their existence is Fillmore (1987):

(1) a. The kinder you are to him, the more he imposes on you.

b. The more time I spend on this problem, the less I understand it.

Fillmore argues that sentences as in (1) are simultaneously **conditional** sentences and **comparative** sentences: the two major constituents are related to one another like the protasis and apodosis of an ordinary conditional (cf. "If you are kind to him, he will impose on you") and each of those constituents contains a comparison between alternative degrees and amounts, of the sort that figures in ordinary comparative sentences (cf. "You were kinder to him than before" and "He imposed on you more than before"). According to the analysis that Fillmore sketches, such sentences, which I will henceforth call **comparative conditional** (and abbreviate 'CC'), a term suggested by Fillmore's analysis, form a construction that is defined in terms of two more basic construction types, as indicated roughly in (2):

(2) If you are $DEOREE_X$ kind to him, he imposes on you to $DEOREE_Y$ You are [more than x] kind to him He imposes on you to DEOREE [more than y]

According to FIIImore's view of grammatical constructions, a construction that is defined in terms of more basic constructions inherits all properties of the more basic constructions that do not conflict with rules that are specific to the derived construction. I will devote a section of this paper each to English, German, and Mandarin Chinese, listing properties of conditional and comparative constructions that are inherited by CC constructions, as well as those characteristics that are peculiar to CC sentences, and will defend a Fillmorean analysis for all three languages.

1. English

a. Properties inherited from conditional constructions

Like ordinary conditional sentences, CC sentences allow an alternative word order in which the protasis comes after the apodosis:

(3) a. I understand this problem (*the) less, the more time I spend on it. a'. I'll understand the problem if I spend a lot of time on it.

For convenience, I will call sentences like (3a) reversed CCs and will call those with

the order of the clauses as in (1) **normal** CCs.

Note that in reversed CCs the word order of the main S is like that of an ordinary comparative (4a) and unlike that of the main clause of normal CCs:

- (4) a. I understand students' problems less than I used to.
 - a'. *Less I understand students' problems than I used to.
 - b. *The kinder you are to him, he imposes on you (the) more.

The rule for the CC construction must thus specify that the apodosis of reversed CCs has neither *the* nor preposing of the compared expression. There is a functional explanation

for the difference in internal structure of the apodosis in the two cases: the two clauses have identical internal structures in normal CCs, so mere movement of the protasis to the end would generally leave no clue that the second constituent had to be interpreted as protasis; to avoid pernicious ambiguity with regard to which constituent is protasis and which is apodosis, in reversed CCs the main clause (i.e. apodosis) reverts to a word order that main clauses normally allow.

As Fillmore has noted, future will is suppressed in the protests of CCs, just as it is in ordinary conditionals:

(5) a. The faster you (*will) drive, the sooner you'll get there. a'. If you (*will) drive fast, you'll get there by 2:00.

The status of the protasis as a subordinate clause is confirmed by possibilities for backwards pronominalization, which are exactly as in ordinary conditionals ($\hbar e$ here is supposed to refer to John): ¹

- (6) a. The longer he has to wait, the angrier John gets.
 - a'. *He gets angrier, the longer John has to wait.
 - b. If he has to wait a long time, John gets angry.
 - b'. *He gets angry if John has to wait a long time.
- b. Properties inherited from comparative sentences:

CC sentences involve compared constituents that exhibit ordinary comparative morphology: -er with short adjectives and adverbs, more with long adjectives and adverbs, and suppletion with good, bad, well, badly, much, many, little:

- (7) a. The worse the weather gets, the happier I am that we stayed home.
 - a'. The worse he behaved, the less attention we paid to him.
 - (worse = bad + -er in 7a, = bad + -ly + -er in 7a')
 - b. The better you treat him, the less trouble he'll give you.

Not all constructions that involve more exhibit this division of labor among more, -er, and suppletion. For example, metalinguistic comparatives as in (8) have only more regardless of what adjective or adverb it might be combined with:

- (8) a. Roger is more happy than surprised.
 - a'. He behaved more badly than inconsiderately.

This is evidence that the CC is not merely marked by *more*, the way that metalinguistic comparatives are, but involves an actual comparative construction.

The 'compared' constituent in either part of a CC stands in an unbounded dependency with the gap in the position from which it is extracted:

- (9) a. The kinder he thinks you're going to be \varnothing to him, the more trouble you can anticipate that he'll feel like giving you \varnothing .
 - b. The more time they tell you that you should spend \emptyset on a problem, the more detailed an answer you can expect them to want you to give \emptyset .
 - c. The more you think about that Sydney Sheldon book, the worse you realize it is \emptyset . (overheard by Charles Fillmore)

This might at first seem not to be a similarity with ordinary comparative sentences, in which the compared constituent is not moved to S-initial position (Comp-position?) the

way that it is in CC sentences. However, there is in fact an unbounded dependency in ordinary comparatives between the compared constituent and the S that serves as the scope of the comparative construction, which can in principle be any superordinate S. For example, the two continuations of (10) illustrate a contrast with regard to whether the main S or the complement S is the scope of the comparative construction — in (10a) one is comparing amounts of time that you spend on a problem, in (10a) amounts of time that they tell you that you should spend on a problem:

- (10) They tell you that you should spend more time on a problem than
 - a. you used to spend.
 - a', they used to tell you that you should spend.
- c. Other properties of CC sentences

I have already mentioned some properties of CC sentences that are not consequences of the rules for comparative and conditional sentences, e.g. that the compared constituent is marked with *the* and moved to the beginning of the clause except in the apodosis of reversed CCs. Another peculiarity of CC sentences is the optional omission of be, which is not shared by conditional sentences, nor by constructions in which constituents are moved into Comp-position:

- (11) a. The more outrageous a politician's promises (are), the bigger his vote count (is).
 a'. A politician's vote count is/*Ø bigger, the more outrageous his promises (are).
 - b. If a politician's promises are/*Ø outrageous, his vote count is/*Ø big.
 - c. John wonders how concerned about justice lawyers are/*Ø.

Note that this option is available only in those parts of a CC construction that have \it{the} + compared constituent in initial position, which suggests that it is a characteristic not, strictly speaking, of CC constructions but of clauses having that word order. In addition, not just any \it{be} can be deleted but only the copula of a generic CC:

(12) a. The more obnoxious Fred is/*Ø, the less attention you should pay to him.
b. The happier the customers are/*Ø behaving, the more things you should try to sell them.

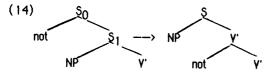
Like most syntactic constructions, the CC has idiomatic instances: The more the merrier; The bigger they come, the harder they fall. These idiomatic instances have sometimes been the only CC sentences mentioned in linguistic descriptions, which has often created a false impression that the construction itself is restricted to idioms. The idiomatic instances are actually atypical of the CC in that the normally available options result in reduced acceptability when applied to idiomatic CC sentences: ??They fall harder, the bigger they come.

Only with the 'apodosis first' word order can a CC be negated:

- (13) a. John doesn't get angrier the longer he waits.
 - (... he maintains a constant level of anger)
 - a'. *The longer John waits, the angrier he doesn't get.

This characteristic need not be stipulated in the rule for the CC construction, since it is a consequence of the cyclic principle plus the analysis of negation that I wish to assume here (elaborated in chapter 17 of McCawley, in press), according to which *not* is a deep-structure S-adjunct. In that treatment of negation, *not* obligatorily triggers

application of a transformation (possibly to be identified with Raising-to-Subject) that converts it into a derived Y'-adjunct:

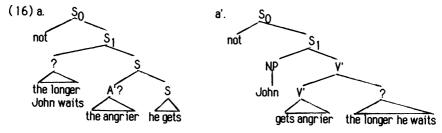


In the second structure in (14), not is in the position that it occupies in non-finite Ss such as (15a-b); if the S is finite, there is an additional step that combines not with the tensed auxiliary verb, as in (15c):

- (15) a. I'm surprised at Sam [not having mailed the letter].
 - b. Smith is said [not to be willing to negotiate with us].
 - c. Sam hasn't mailed the letter.

The step in (14) applies to all S-adjuncts, e.g. *probably* is an underlying S-adjunct and can be either a S-adjunct or a V'-adjunct in surface structure (as argued in McCawley (1983)), but is obligatory for *not*

Suppose we have a deep structure of the form $not + S_1$, where S_1 is whatever under lies *The longer John waits, the angrier he gets.* By the cyclic principle, whatever rules are responsible for the difference between the two forms of the CC construction would have to apply on the S_1 cycle, and thus, in derivations of (13a-a'), the input to the S_0 cycle would have to be (16a) and (16a') respectively:



Actually, in (16a') the longer he waits could modify either the S John gets angrier or the V' gets angrier, in virtue of the optional conversion of S-adjuncts into V'-adjuncts, but only the structure in which it modifies the V' allows the normal rules for negation to apply on the S_0 cycle: not can be converted into a V'-modifier only if the S with which it is combined is of the form [NP V']. With the structure as in (16a'), we are in the same situation as if S_1 were John gets angry if he has to wait: the V'-adjunct does not prevent the usual rules for negation from applying (cf. John doesn't get angry if he has to wait a long time), and (13a') results. However, there is no well-formed derivation of (13a), because in (16a) S_1 is not of the form [NP V'], that is, it is not of a shape that allows the usual rules relevant to negative placement to apply.

Another difference between the two forms of the CC sentence is that only the apodosis of a reversed CC allows 'notional' as well as morphological comparatives:

- (17) a. His happiness increases, the more attention he gets.
 - a'. *He gets happier, the attention he gets increases.
 - b. *The more attention he gets, his happiness increases.

I tentatively suggest that a 'notional' comparative is allowed in precisely this case because in all other cases the rule for the CC construction requires a compared constituent in Comp-position, and thus the construction is limited to sentences that have such a constituent. However, in the apodosis of the reversed CC, no position is required to be filled by a constituent of any particular form, and thus any S having a meaning appropriate to the construction can play the role of the apodosis.

2. German

German has a CC construction that is very similar to that of English except that in place of *the... the*, the marker is *je... desto* or *je... um so*:

(18) a. Je l\u00e4nger du in Deutschland wohnst, desto besser wirst du Deutsch sprechen. 'The longer you live in Germany, the better you will speak German' b. Je abstrakter ein Wort ist, um so geringer ist die M\u00f6glichkeit der Zeigdefinition. 'The more abstract a word is, the slighter the possibility of an ostensive definition is' (Ernst Leisi, Praxis der englischen Semantik, 38)

Like English, an alternative word order with apodosis first is possible, and as in English the apodosis then does not have the compared expression in initial position, though here desto is optional whereas in English the was not allowed:

(19) a. Der Bankier benahm sich desto lustiger, in je gefährlicher Laune er sich befand. 'The banker behaved more happily, the more dangerous a mood he was in' (Thomas Mann, cited by Eggeling 1961)

b. Die Berge wurden dunkler, je tiefer die Sonne stand. 'The mountains became darker, the lower the sun stood'

The word order of sentences like (18) is noteworthy. In German, main clauses have the finite verb in 2nd position, and subordinate clauses have it in final position; the <code>/e-clause</code> thus has the word order of a subordinate clause and the <code>desto-clause</code> has that of a main clause. Thus, it is fairly obvious in German from the position of the finite verb that the first clause in a normal CC sentence is subordinate and the second clause is a main clause, something that was not immediately obvious in English and which it took a fair amount of arguing to establish. However, strictly speaking, the finite verb <code>wirst</code> in (18a) is not in second but in third position: the <code>/e-clause</code> comes first, then the <code>desto</code> expression, then the finite verb. Note that in locating 'second position' in a German sentence, initial 'adverbial clauses' count as occupying first position:

- (20) a. Wenn Hans kommt, werde ich dich ihm vorstellen. 'If Hans comes, I'll introduce you to him'
 - a'. *Wenn Hans kommt, ich werde dich ihm vorstellen.

Thus, there is no general rule of German word order according to which the protasis of a CC sentence would not count as occupying first position. I suggest tentatively a way of accounting for the fact that the finite verb in sentences like (18) occupies third position, namely that construction-particular rules take precedence over general rules of the particular language and general principles of language. Here, third position is the closest that one can get the verb to the generally required second position, given that the rule for the protasis-first version of the CC construction requires that the je-clause occupy first position and desto + compared constituent occupy the second position.

I am not yet in a position to advance this hypothesis with much confidence, but I note that there is a well-known anomaly in the syntax of anaphora that it would render

non-anomalous. Consider the apparent violation of of rules for pronoun-antecedent relations (e.g. Chomsky's binding principles) in such sentences as:

(21) The table; has a book on it;

Here the pronoun has the subject as its antecedent but is in a position in which only an 'anaphor' such as a reflexive or reciprocal pronoun could have the subject as antecedent. Suppose, however, that one treats such sentences along the lines suggested by Ross (1967:264) (developing an idea of Fillmore (1966:25)) as derived from existential sentences (in this case, *There is a book on the table*) by moving the object of the preposition into the position of *there* and leaving a pronoun in its place. Suppose further that we adopt the suggestion of Ross that copying of NPs always leaves a nonreflexive personal pronoun in the position of the copied NP, so that (21) could be treated as an instance of copying plus predictable replacement of the original NP by a pronoun. Then the presence of a simple rather than a reflexive pronoun ceases to be anomalous: the general constraints on pronoun-antecedent relations are rendered inapplicable by a clause in the rule for a particular construction whose implications conflict with those principles.

3. Mandar in Chinese

Mandarin Chinese has a CC construction in which both clauses are marked by yué:

(22) a. Ni yùe shuō, ta yuè bu ting. 'The more you talk, the less he listens' (Chao 1968: you CC talk he CC not listen 121)

b. Săngzi yuè dà, huà shuō-de yuè cháng, rén jiù yuè bu ting.
 voice CC big talk speak long people then CC not listen
 The louder the voice (and) the longer the talk, the less people listen

c. Nì yuè dă tâ de chà, tā jiù yuè shuō-bu-ting, vou CC inter-he GEN -rupt he then CC speak-not-stop

'The more you interrupt him, the more he can't stop talking' (Chao 1947:167)

While this construction at first looks very unlike the English CC construction, I will argue that it is amenable to the same sort of analysis that Fillmore proposed for English and that the differences between Chinese and English CC's are largely due to differences in the comparative and conditional constructions of the two languages.

A respect in which CCs behave like conditionals is immediately obvious in (22b,c),

in which $ji\vec{u}$ is used as in ordinary conditional constructions: 6

(23) Ni yàoshi dàshēng shuōhuà, wò <u>jiù</u> bu ting. You if big-voice speak I then not listen 'If you talk loud, then I don't listen'

Note that in (22), $yu\dot{e}$ follows the subject. In this respect, one might at first think that it resembles such 'subordinating conjunctions' as $y\dot{a}ashi$ ' if' and $suir\dot{a}n$ 'although', which can also appear in that position. However, the distribution of $yu\dot{e}$ in fact deviates from that of $y\dot{a}ashi$ and $suir\dot{a}n$, since those elements can occur either after the subject (24a) or before the whole protasis (24a'), but $yu\dot{e}$ cannot occupy the latter position:

- (24) a. Sắngmén yàoshi tài dà, wố jiù bu tĩng. 'If the voice is too loud, I don't listen' voice if too big I then not listen
 - a'. Yàoshi săngmén tài dà, wố jiù bu ting.
 - b. *Yuè săngzi dà, yuè wổ bu ting. (cf. (22b))

In this respect, the placement of yuè is like that of comparative 'than'-phrases:

- (25) a. Zhāngsān [bǐ Lǐsì] gāo. 'Zhangsan is taller than Lisi' a'. *[Bǐ Lǐsì] Zhāngsān gāo.
 than than tall
 - b. Zhangsan [gen Lisi] yiyang gao. 'Zhangsan is as tall as Lisi' with same tall b'. *[Gen Lisi] Z

with same tall b'.*[0ēn Lisi] Zhāngsān yiyàng gēo. Zhāngsān [hi whi] hu ting huà 'Zhangsan listens less than Loo'

c. Zhāngsān [bǐ wǒ] bu tīng huà. 'Zhangsan listens less than I do' not listen speech c'. *[Bǐ wǒ] Zhāngsān bu tīng huà.

Thus, a Fillmorean analysis of the CC construction will explain the placement of $yu\dot{e}$ if it can be developed in such a way that $yu\dot{e}$ is the counterpart of the $b\ddot{i}$ phrase: $yu\dot{e}$ will inherit the word order restrictions to which its counterpart in comparative constructions is subject.

Comparative constructions are an area in which Chinese differs sharply from such languages as English and Japanese. English and Japanese are relatively free of constraints on the syntactic role of the compared constituent or of the 'focus' constituent to which the sentential object of *than* can be reduced. By contrast, Chinese is subject to such severe constraints that the vast bulk of English and Japanese comparative sentences cannot be translated into Chinese except through circumlocution. For example, the compared constituent must be topmost in the predicate phrase, and violations of that constraint are often avoided by use of the ubiquitous Chinese construction in which a S or a V' is copied into topic position and the original is reduced to the predicate element plus de:

- (26) a. *Nǐ [bǐ wǒ] mǎi-le (hěn) duồ shū. 'You bought more books than I (did)'
 You than I buy-PERF very many book
 - a'. Nì mài shū [bì wo] mài-de duo. You buy book than I __buy-EXT many
 - a". Ni mái shū mái-de [bi wo] duo.

In addition, the focus of the construction must be outside the predicate phrase. This is why the direct Chinese counterpart (27b) of the ambiguous (27a) is unambiguous, allowing the object of b to be interpreted only as a subject; only through a circumlocution as in (27c) can the meaning of (27a) with the object as focus be expressed:

- (27) a. Zhangsan likes Dingyi more than Lisi. (Lisi can be subject or object)
 - b. Zhāngsān [bǐ Lisi] xihuan Dingyī. (¿isi can only be subject) than like

c. Zhangsan xihuan Dingyi [bi xihuan Lisi] xihuan-de duo.

like than like
d. Ta [chi ròu] bi [chi yú] chi-de duō.
he eat meat than eat fish eat-EXT much
'He eats more fish than meat' (Jiang Zixin)

CC sentences are subject to the same constraints, and utilize the same circumlocutions to avoid its violation:

(28) a. Nǐ mǎi shū mǎi-de yuè duō, nǐ jiù yuè shōu rén zūnjìng. you buy book buy-EXT CC much you then CC receive people respect 'The more books you buy, the more that people respect you'

a'. Nì mài shu yuè mài-de duo, nì jiù yuè shou rén zūnjìng.

a". Shữ mài-de yuệ duố,...

b. Tā kao-shì kao-de yuè hao, tā fùqin yuè gaoxing. he take-exam take-EXT CC good he father CC happy

'The better he does on exams, the happier his father is.

b. Tâ kǎo-shì yuè kǎo-de hǎo, tā fùqin yuè gāoxing. c. Tā chī ròu chī-de yuè duō, hē jiǔ jiù hē-de yuè duō. He eat meat eat-EXT CC much drink liquor then drink-EXT CC much 'The more meat he eats, the more liquor he drinks'

Note that the variation in the placement of the $\cancel{b'}$ phrase in the comparatives (26a'-a") is matched by corresponding variation in the placement of \cancel{vue} in the CC (28a-a'), which confirms the suggestion above that \cancel{vue} is the CC counterpart of the $\cancel{b'}$ phrase.

The Chinese CC allows unbounded dependencies: yuè can occur in a S subordinate to one of the major parts of the CC but have the superordinate 'major part' as its scope:

(29) a. Zhào tàitai yuè shuō, zìji juéde yuè you li. (Wang 1953: 64) Mrs. CC talk self feel CC have reason

'The more Mrs. Zhoo talked, the more right she felt herself to be' [in English, one might say '... the more she felt she was right', but that is ambiguous with regard to whether 'more' expresses the degree of feeling or the degree of being right]

b. Tấ yuè bu tinghuà, fùqin yaoqiù xuéxiào pài rén bà ta kàn-de yuè yán. He CC not behave father request school send person ANTP he look-EXT CC strict 'The more he does not behave, the more strictly his father requests the school to send people to watch over him' (Li Ligang) ANTP = 'antipassive'

c. Tá tíngshuỗ qiánfāng dà-de yuẻ jín, jiù zhídào Lisì huì tỗngzhi jiārén bà He hear front hit-EXT CC tense then know will ask family ANTPS qián yuẻ kuài sòng wăng guówài. (Li Ligang) money CC fast send to abroad

'The more tense he hears the fighting at the front is, the more quickly he knows Lisi will ask his family to send money abroad'

While Chinese CCs in this respect seem exactly parallel to English CCs, they are not quite so clearly parallel to Chinese comparatives, which are what is directly relevant to justifying an analysis in which Chinese CCs are derived from Chinese comparatives and conditionals. To a limited extent, comparatives can indeed have a long-distance dependency between the compared expression and the scope of the construction, as in the following analog to (29b), but it is considerably harder to construct acceptable examples of long-distance dependencies in comparatives than it is in CCs, and indeed, sentences like (30) (with the indicated scope) violate the restriction that was illustrated in (26):

(30) Tā fùqin jīnniàn yāoqiú xuéxiào pài rén bă tā kàn-de bi qùnián yán. He father this.year request school send person ANTP he look-EXT than last.year strict 'This year his father requested the school to send people to watch over him more strictly than last year' (comparison of degrees of strictness requested)

Another less than full parallelism between CCs and comparatives was brought to my attention by Li Ligang, who notes that CCs of comparatives are often perfectly acceptable, while comparatives of comparatives are marginal:

(31) a. Tā yuè bi wò qiáng, wò yuè gándào zìháo. (or: Tā bi wo yuè qiáng, ...)
he CC than I strong I CC feel proud
'The more he is stronger than me, the prouder I feel'

b. ?Tā bì yiqián bì wò qiáng. 'He is more stronger than me than before'
 He than before than I strong

In English likewise, a CC of a comparative is more normal than a comparative of a

comparative (as illustrated by the glosses in (31)). Perhaps the lowered acceptability of examples like (31b) can be given an account of the sort that I proposed for their English counterparts in McCawley (1973), where I attributed their unacceptability to a surface constraint excluding *more* + comparative expression, arguing that such sentences were required as intermediate stages in the derivations of such sentences as:

(32) Ten years ago he was richer than me and now he's even more so.
(= richer than me to an even greater extent)

If such an account is warranted, then the discrepancy between (31a) and (31b) reflects not a discrepancy between the syntax of CC's and of comparatives but a surface constraint on repetition. I note before leaving this topic that the only two facts that I have brought up that cast any doubt on an analysis of Chinese CCs that is completely analogous to Fillmore's analysis of English CCs are respects in which Chinese and English behave alike.

4. Conclusion

Recent work by Chomsky has explicitly rejected the notion of syntactic construction; in this respect it is diametrically opposed to the recent work of Fillmore, Kay, and Lakoff, which gives the notion of syntactic construction a central theoretical role and allows syntactic constructions to be described in terms of other syntactic constructions and to inherit characteristics specific to the latter. Chomsky's rejection of 'syntactic construction' amounts to the adoption of a research program of exploiting putative general principles of language and of using the lexicon as the sole repository for those properties of constructions that cannot be made to follow from general principles. His works have given far more emphasis to the first half of this research program than to the second, but the second half is clearly represented by, for example, the passages in Chomsky (1986) which touch on those details of English passives that do not follow from 'trace theory', 'government', and 'binding', i.e. the special roles that be, by, and the past participle play, and the fact that the object of by is to be interpreted as the semantic subject of the verb. Chomsky's brief and fragmentary remarks on those matters point to an analysis such as is worked out in Jacquii (1986), in which be, by, and the past participle morpheme have dictionary entries that enumerate their special roles in the passive construction.

I have two principal reasons for doubting the viability of this research program. The first is that it requires that particular morphemes be held responsible for the properties specific to any construction. That is plausible enough for a construction like the English passive, which has 'markers' on which the pecularities of the construction could be blamed. But what about syntactic constructions that do not have any 'marker' whose dictionary entry a specification of their peculiarities can be built into? A possible case of this is provided by restrictions on where negative polarity items can appear in relation to a negation, which differ considerably from language to language (English, French, and Spanish differ considerably from one another in this regard), but which cannot be built into the dictionary entry of any one negative element, because all of the many ways of expressing negation are available to satisfy requirements on where a negation may occur in relation to negative polarity items.

My second reason for doubts about the general feasability of building construction—specific restrictions into particular dictionary entries is the inheritance by derivative constructions of properties of the constructions from which they are derived, as in the inheritance of properties of comparative and conditional constructions by CC constructions. Here, even if there are markers (such as the special use of *the* in English, and *je* and *desto* in German) whose dictionary entries could be made the repositories of the pecularities of the construction, Chomsky's research program would force one to

supply the dictionary entries of the markers of that construction with information about other constructions in which those markers play no role and thus in effect to treat as peculiarities of the CC construction properties that it inherits from the more basic constructions. $\frac{1}{2}$

NOTES

1. An additional pecularity of conditionals that is shared by CCs has been called to my attention by John Richardson, namely that extraction from the subordinate clause is more acceptable than in other combinations with a preposed S-modifying clause:

?Sam is one of those guys who if you talk to Ø you'll like him.

?Sam is one of those guys who the more you talk to \emptyset the more you like him.

??Sam is one of those guys who although I've talked to Ø I don't really know him.

??Sam is one of those guys who after I talked to Ø I respected him.

2. John Richardson has pointed out that such deletions occur in 'immateriality clauses':

Remember that Frank is just a glorified file clerk, however big his salary (is).

3. For similar reasons, only a reversed CC can be made into a yes-no question:

Does Max get angrier the longer he has to wait?

*Does the longer Max has to wait, the angrier he get?

*The longer Max has to wait, does the angrier he get?

Surprisingly, a tag question formed from a normal CC is only mildly odd, a fact that I leave unaccounted for here:

(?)The longer Max has to wait, the angrier he gets, doesn't he? Max gets angrier the longer he has to wait, doesn't he?

Tag questions provide additional evidence that the first part of a normal CC is subordinate and the second part a main clause, since it is the subject and auxiliary verb of the latter that are copied in the tag:

The more Max talks, the angrier Lucy gets, doesn't she/*he?
The longer he's studied a language, the better he can speak it, can't/*hasn't he?

- 4. Curme (1922:598) points out that in early modern German it was possible for both clauses of the CC to have subordinate word-order and suggests that this was "for the sake of a parallelism between the two propositions".
- 5. McCray (1982) notes that the finite verb is in third position in conditionals with *dann* or *so* and accounts for this word order by treating such sentences as Left-Dislocation structures, in which the dislocated constituent does not count for the word order rules and the host S must contain a resumptive pronoun corresponding to the dislocated constituent:
 - i. Wenn die Kleider fertig sind, dann werde ich sie sofort abholen.

'If the clothes are ready, I'll pick them up right away'

ii. Der Professor, sie lobten ihn. 'The professor, they praised him'

While McCray is surely correct that *dann/so* is a pronoun with the conditional clause as antecedent, her account seems to imply that it should also be possible to have *dann/so*

later in the sentence and a different constituent before the verb, as in (iii):

- iii. *Wenn die Kleider fertig sind, ich werde sie dann sofort abholen.
- iii'. ?Wenn die Kleider fertig sind, werde ich sie dann sofort abholen.

If dann appears other than at the beginning of the main clause, as in the learned-sounding (iii'), the finite verb must immediately follow the wenn-clause. The occurrence of dann/so in first position in the main clause thus appears to demand a restriction on word order peculiar to those items, as in the treatment of word order proposed here.

Hook and Manaster-Ramer (1985) point out an additional case in which the finite verb is in third position, namely where an adverbial clause appears at the beginning of a WH-interropative:

Wenn Sie nicht sagen, wo Ihr Junge ist, wie können Sie dann erwarten, dass man Sie freilässt? 'If you don't say where your son is, how can you expect to be released?' Here again, third position is the closest that the verb can get to second position, given that the adverbial clause and (obligatory) WH-movement force other things to fill the first two positions.

- 6. In this respect, Chinese is unlike English, since the English counterpart of j/\dot{u} , namely then, does not appear in corresponding CCs:
 - i. The louder you talk, (*then) the less people listen.

I am at a loss to explain this gap in English; one cannot, for example, argue that *then* preempts the filling of the 'Comp-position' by the preposed *the* + comparative, since *then* **precedes** items that are moved into Comp-position:

- ii. If you quit now, then who can I get to replace you?
- 7. In the following examples yuè can be regarded as preceding not the whole protasis but the comment of a topic-comment construction in the protasis that has a zero topic.
 - i. Yuè dùzi è, jiù yuè xiang huí jiā. (Li Ligang) CC stomach hungry then CC want return home
 'The hungrier (one) is, the more one wants to return home'
 ii. Sangmén yuè dà, yuè méi rén ting. (Jiang Zixin) voice CC large CC not-be person listen
 'The louder the voice is, the fewer people listen'

In the case of (ii), this requires that one interpret $m\acute{e}i$ not as a determiner but as a predicate element (so that $m\acute{e}i$ rén $t\acute{i}ng$ is literally 'There aren't people [who] listen') 8. Chomsky occasionally (e.g. 1986:75-6), perhaps with humorous intent, refers to 'Chinese-Japanese', as if from his point of view the syntactic differences between Chinese and Japanese were insignificant. There are of course important respects in which Chinese is like Japanese and unlike English, just as there surely are important respects in which it is like Swahili and unlike Nahuatl. However, it is doubtful that Chinese syntax in general is any more like Japanese than like English. The syntax (NB: not the morphology) of comparative constructions is one clear respect in which English and Japanese are very similar and Chinese grossly different from both; a second such respect is that the set of complementizers is relatively large in both Japanese and English and empty in Chinese. 9. There is a class of sentences that are often classed together with CCs but which I maintain are syntactically distinct, namely those in which $yu\grave{e}$ is combined with a dummy verb (usually $l\acute{e}i$; $qu\acute{o}$ and $bi\grave{e}n$ also occur):

vuè sha le. 'He is getting sillier and sillier' (Chao 1968:121) i. Ta vùe lái He CC come CC silly

For the following reasons, I regard these sentences as not CC constructions but rather analogs of the English more and more constructions. It is not possible for each of the two parts of this construction to have its own subject, the way that that is possible in CC's (ii); $ji\vec{u}$ is not possible (iii); and it is possible only to a limited extent to get anything intervening between $l\acute{a}i$ and the second $yu\dot{e}$, though here there is considerable individual variation (iv):

ii. *Zhangsan vuè lái tā fùqin vuè qaoxing. CC come he father CC happy

'Zhangsan, his father gets happier and happier'

(acceptable as: 'The more Zhangsan comes, the happier his father is')

iii. *Ta yuè lái jiù yuè shá le.

iv. a. *Xiàng vuè lái bízi yuè cháng. a'. %Xiàng yuè lái yuè bízi cháng. elephant CC come nose CC long

'Elephants have longer and longer noses'

b. Zhāngsān yuè lái shēnti yuè jiànkāng. 'Zhangsan gets healthier and healthier' (name) CC come body CC healthy

10. For valuable comments on earlier versions of this paper, I am grateful to Jiang Zixin, Thomas Lee, Li Ligang, John Richardson, and Wang Chuan.

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