

3. In Greek the PIE ablative had fallen together with the genitive, so that the genitive of comparison represents an older ablative of comparison.
4. I have parenthesized the label *conj* because I am not sure there is any reason to posit such a label.
5. In expressions like this, both adjectives (i.e. both the topic and the target) are in the comparative degree. This construction has interesting idiosyncracies in English too: note that the analytic form of the comparative is required in these expressions, and the synthetic form is impossible:

(1) * The army was richer than brave.

6. This case is, I believe, called something else in Hungarian grammar; I label it ablative because it is equivalent to the Latin ablative of comparison.

7. Since the immobility of targets in the clausal construction is due to that construction's remaining an island even when reduced, such targets are not deletable either. In Papago, which apparently has only the clausal construction, and which does relativization by deletion, it is impossible to relativize the target of a comparison:

(1) *húan ʔo báʔicʔi céwaj m-o (hí) hégal ʔóʔaham*
Juan aux more tall conj-3sg (than) that man

'Juan is taller than that man.'

(11) * *s-má:c ʔaí hégal ʔóʔaham m-o ɛ húan báʔicʔi céwaj mo (hí)*
know aux the man conj def Juan more tall conj

'I know the man Juan is taller than.'

I am indebted to Ken Hale for this information.

8. My informant did not find (31)a to be absolute gibberish, but it is definitely worse than (31)b, and also definitely worse than (30)a. Also, he found

(1) ? *János többet evett Péternél.*
János more ate Peter (abl)
'Janos ate more than Peter.'

even more palatable. In a connection to be established later, it will be interesting to note that the Ergative Movement constraint seems likewise to be relaxed in the English version of this sentence:

(11) ? Who did Janos eat more than?

The simple version of the constraint on phrasal comparatives stated above is inadequate to account for these differences. It

is also quite possible that the constraint is stated wrong, and has more to do with the location of the comparative element in relation to other elements in the clause than with the grammatical function of the target.

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since it follows from the nature of the clausal construction and the more general restriction on phrasal targets. I will conclude by pointing out one more result of this analysis, which could not have been foreseen in advance.

The Ergative Movement constraint said nothing at all about targets which are adjectives; the analysis suggested here, on the other hand, makes a definite prediction about them. It was noted in section 4.1 that Latin and Greek allow adjectives as targets in the clausal construction; they do not, however, allow them as phrasal targets. Under the assumption that English allows the same phrasal constructions as Latin and Greek, we must predict that adjective targets in English will be immobile, and they are:

(33) The administrators are more stupid than malicious.

* Malicious though the administrators are more stupid than, the end result is much the same.

* Malicious is what I claimed they were more stupid than.

* Malicious, I would say they were more stupid than.

This prediction also follows from the fact that in English, adjectives cannot be objects of prepositions. It still only follows, however, under the assumption that the mobile targets of English are in a phrasal construction.

7. Conclusion

I conclude, then, that there are two than's in English, essentially because English behaves like a lot of other languages which overtly have two distinct comparative constructions. This conclusion gives rise to certain interesting questions, such as whether the phrasal construction can be shown to be derived from an underlying clausal construction, just how the strange constraint is to be stated, whether the two constructions have slightly different functions, and so on. To attempt to answer any of these questions would, of course, require a major expedition into these uncharted realms.

The conclusion that the clausal construction contains an intact S-node has implications for the theory of tree-pruning; it is not totally clear what the structural relation should be between a conjunction and its clause, but what seems to be the case is that the presence of the conjunction protects the S-node from pruning, even though otherwise it ceases to branch and loses any claim to internal clausehood. This is another murky area, in which the faintest glimmer of light should be welcome.

FOOTNOTES

1. In the comparative constructions to be examined here, there is always a constituent in the matrix S which is compared in some respect to the target; I will refer to this constituent, where it is necessary to mention it, as the topic of the comparison. Thus in

(1) Harry likes potatoes more than roast beef.

potatoes is the topic, and roast beef the target, of the comparison. The precise definition of topic requires the notion of parallel construction: briefly, the topic is that constituent in the matrix S which, if the matrix S were superimposed on the comparative S, would occupy the position of the target.

This notion does not play a central role in the present discussion; but it is required for the statement of certain generalizations about the reduction of comparative clauses. For example, there are comparative constructions in which, because the comparative clause does not repeat portions of the matrix clause, reduction cannot occur:

(11) They arrived sooner than was necessary.
You bought more booze than we needed.

And in some, even though there is repetition in the comparative clause, reduction cannot occur:

(11i) Bill kissed more girls than kissed Alex.
(11v) Bill kissed more girls than Alex. (#11i)

The ellipsis rule that effects the reduction of comparative clauses cannot apply unless the structures of the matrix and comparative clauses are parallel, i.e. unless there are definable topic/target.

2. The precise nature of this constraint remains obscure. It is clear that it is not actually so superficial as to be statable in terms of the notions "subject of transitive", etc., as these terms are defined in standard theory, for targets which are underlying subjects of transitives with generic objects, as in (1), or of certain statives, as in (11), are movable:

(1) ? There's a man I'd like to be able to sing opera as well as.
(1i) ? There's a man I'd like to have a better voice than.
? There's a man I'd like to own more land than.

Note the contrast with a real transitive:

(11i) * There's a man I'd like to buy more land than.

It is also said that the comparative of an adverb generally requires the clausal construction:

- (28) Tempus te citius quam oratio deficeret. (Horatius)
'Time would fall you sooner than words.' (# abl)

But then exceptions like (29) must be noted:

- (29) Lacrima nihil citius aresoct.
tear (abl) nothing sooner dries
'Nothing dries sooner than a tear.'

Our olivum sanguine viperino cautius vitat?
'Why oil viper's blood (abl) more carefully he avoids
'Why does he avoid oil more carefully than viper's blood?'

So far as I have been able to tell, the exceptions are all cases where the target is the subject of an underlying intransitive, as in (29), and the only real effect the rule has is to prevent the phrasal construction from being used where the target is the subject of an underlying transitive, as in (28).

The conclusion that the correct constraint for Latin and Greek is that underlying subjects of transitives cannot appear in the phrasal construction must, of course, remain tentative. A careful and extensive examination of texts, which I have had neither the time nor the inclination to undertake, would be required to establish it.

Fortunately, as noted above, there exist living languages which have the same two constructions, and it appears that they have exactly the constraint in question. The following are the facts in Hungarian:

- (30) a János magasabb. Péternél.
János more tall Peter (abl)
'János is taller than Peter.'
b János magasabb mint Péter.
János more egg ate Peter (abl)
'János ate more egg than Peter.'

(31) a* János több tojást evett Péternél.
János more egg ate Peter (abl)
'János ate more egg than Peter.'

The following sentences show that the constraint holds in Serbo-Croatian:

- (32) a Volim Majkla više nego Pitera.
b Volim Majkla više od Pitera.
'I love Michael more than Peter.'

Sentence (32)a, the clausal construction, is ambiguous, just like the English gloss: Peter can be interpreted either as the subject of an underlying transitive clause or as the object of such a clause. Example (32)b, on the other hand, is unambiguous: it has only the reading 'I love Michael more than I do Peter'.

I conclude from all this that languages that have both comparative constructions are subject to a constraint, whether or not I have formulated it correctly, which has the effect of preventing underlying subjects of transitives from appearing as targets in the phrasal construction, at least in the limited class of cases considered here. Clearly, in view of the superficial nature and very limited scope of this investigation, the likelihood that the informal characterization I have chosen is correct, or even anywhere near the mark, is vanishingly small; I do not claim to have done more than uncover the existence of a phenomenon which seems to be cross-linguistic, and which has the effects noted in the cases discussed.

6. Clausal and Phrasal Constructions in English

The reader will no doubt have noticed that there is a rather surprising correlation between the strange constraint discussed in the preceding section and the Ergative Movement constraint manifested by comparative targets in English. It can hardly be an accident that just the targets which cannot appear in the phrasal construction in Latin, Greek, Hungarian, and Serbo-Croatian are the ones that are immobile in English.

Barring the existence of transgalactic constraints of such power as I hope not even the most rabid theory-expanders would care to contemplate, it seems clear that the constraint on movement of targets in English must be taken as a reflection of an underlying similarity between the constructions of English and those of the other languages. English must then have two distinct comparative constructions just as Latin does, one clausal and one phrasal; only in English they happen to look alike, because the conjunction than of the clausal construction happens to be homophonous with the preposition than of the phrasal construction.

Note that Latin, by virtue of the restriction on phrasal targets and the nature of the clausal construction, automatically has the Ergative Movement constraint: subjects of transitives can't get to be phrasal targets, and clausal targets can't move. Similarly in Hungarian, Greek, and Serbo-Croatian, and presumably in every language that has both kinds of comparative constructions, if, as one must hope, the strange restriction on phrasal targets is universal. For English, I suggest, it is exactly the same: if English has a prepositional phrase construction corresponding to the Latin ablative construction, it is no longer a mystery why some comparative targets in English can move, for objects of prepositions generally can move, and prepositions can generally pied pipe, as than is seen to do on occasion. If the phrasal construction in English is subject to the same constraint as in the other languages, it is no longer a mystery peculiar to English that subjects of transitives are unable to enjoy this freedom.

The Ergative Movement constraint can now be done away with,

clause even after reduction.

4.4 The Constraint on Movement

In Latin, if the target is a relative pronoun, only the phrasal construction is possible:

- (21) *amicitia, quā nihil melius habemus*
'friendship, which (abl) (= than which) we have nothing better'

* *amicitia, quam quae nihil melius habemus*

rex erat Aeneas nobis, quo iustior alter nec...
'our king was Aeneas, than whom no more righteous...'

* *rex erat Aeneas nobis, quam qui iustior alter nec...*

Notice that leaving the quam downstairs doesn't improve matters any:

- (22) * *amicitia, quae nihil melius quam habemus*

These facts are, of course, not at all surprising, if the structure of clausal comparative constructions is as represented in (11). In no known language is it possible to pied pipe S-nodes, or to chop constituents from clauses which are other than major constituents (i.e. sentential subjects or objects). There is no such obstacle to the movement of phrasal targets.

The facts in (21)-(22) reflect a general constraint on clausal comparative constructions. There are a number of languages which, like Latin and Greek, have both clausal and phrasal constructions, and in none of them is it possible to move the target in the clausal construction. The following examples are from Hungarian:

- (23) *János magasabb mint Péter.*
János taller than Peter

János magasabb Péternél. (abl)⁶

* *Mint ki magasabb János?*
than whom taller János?

* *Ki magasabb János mint?*

Kinek (abl) magasabb János?

Similarly in Serbo-Croatian, which has a phrasal construction employing the preposition *od*, and a clausal construction with the conjunction *nego*:

- (24) *On je viši od mene.*

'He is taller than me.'

On je viši nego ja.

'He is taller than I.'

Notice that the conjunction *nego* is followed in example (24) by an NP in the nominative case. It is possible, in what I am told is somewhat formal style, to get unreduced clauses with *nego*:

- (25) *On je viši nego što sam ja.*
'He is taller than I am.'

As in Hungarian, it is possible to question the target in the phrasal construction, but not in the clausal construction:

- (26) *Od koga je on viši?*
'Than whom is he taller?'

* *Nego kto je on viši?*

I consider it established that these languages have two comparative constructions, clausal and phrasal, and that these constructions differ in that the target in the phrasal construction is mobile, while the target in the clausal construction is not.

5. A Strange Constraint on the Phrasal Construction

There is a curious restriction on the use of the phrasal construction in Latin and Greek. What is usually stated in the grammars is that this construction can only be used where the corresponding clausal construction would have a target NP in the nominative or accusative case. This constraint is sometimes violated in poetry, and rarely in prose, and it is impossible to assess what degree of deviance, if any, was felt to be associated with its violation; I assume that it did have the status of a grammatical constraint.

This condition is not sufficient, however, for the grammars usually go on to list a number of situations where the phrasal construction cannot be used, even though the condition as stated is met. Having examined a number of such grammars, and carefully checked through the various conditions stated in them together with the examples provided, I am convinced that what these extra restrictions boil down to is that the phrasal construction can be used where the target is a nominative or accusative corresponding to an underlying subject of an intransitive or object of a transitive respectively, but not when it is the underlying subject of a transitive. For example, it is said that the phrasal construction cannot be used when the comparative adjective modifies an NP other than the topic (Madvig, p. 270):

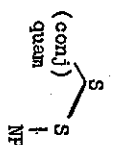
- (27) *Tu splendidorem habes villam quam ego.* (acc, Tibertio)
'You have a more splendid villa than I.'

(* *abl*)

No examples were given, however, and I have been unable to find any, where this constraint had any effect other than to rule out a phrasal target which, as in (27), is the subject of an underlying transitive clause.

4. Evidence that the Clausal Construction is a (Reduced) Clause

I will present evidence in this section that the comparative target constructions *quam illi*, ἢ φίλου, etc. in sentences like (12)-(13) are derived from underlying full clauses, and that they remain clause-like even though they are reduced by an ellipsis rule to a single constituent. In short, I will argue that they have a structure something like (14):



4.1 Clause Junk

Evidence for the clausal origin of these expressions is easy to come by, and perhaps there are few who need to be convinced of it. Latin has, in addition to the maximally reduced expressions so far considered, where all that remains of the former clause is the target of comparison, comparative constructions with *quam* followed by non-reduced and partially reduced clauses:

- (15) *Magis timeo quam spero.*
'I fear more than hope.'
Haec Verba sunt Varronis, hominis doctioris, quam Ait Claudius.
'These words are from Varro, a man more learned than was Claudius.'
(16) *Non nascitur ex malo bonum, non magis quam ficus ex olea.*
'Good is not born out of bad, no more than a fig tree from an olive.'

Both Latin and Greek have adjectives and prepositional phrases as targets in this construction:

- (17) *Exercitus erat altior quam fortior.*
'The army was more rich than brave.'
στρατηγὸν πλεόνους ἢ βετιόνους
'Generals more numerous than good'
ἀξιότιον εἰς τὴν ἀμετρίαν μάχων ἢ εἰς τὴν βίτην
'to look at skill more than at courage'

In short, the conjunctions of comparison may be followed by all kinds of constituents, and even by nonconstituents, as in (16). This 'clause junk' can be accounted for only as the remains of underlying full clauses which have undergone ellipsis. Any other account would fail to capture the generalization that the junk in comparative expressions is always possible leftovers from a full clause, and never, say, two verbs in succession, or three NPs in the genitive case.

4.2 Tense Retention

There is a constraint in Latin to the effect that if the target of comparison is, in the comparative clause, the subject of a verb different from the verb in the main clause, or in a different tense from that of the verb in the main clause, (a) the clausal construction must be used, and (b) the verb in the comparative clause must be retained:

- (18) *Verris argentum reddidit L. Cordio, homini non gratiosiori, quam G. Calidius est.*
'Verris returned the money to Cordius, a man not more favored, than Calidius is.'

Greek has the same constraint, with the curious wrinkle that the verb in the comparative clause is regularly deleted:

- (19) *ἄνδρὸς δυνατοτέρου ἢ ἐγὼ υἱόν*
'man (gen) more powerful than I (nom) son
'son of a man more powerful than I (am).'
ἡθλιότες καὶ ἐκ δεινότερων ἢ τοῦτω δε
'from a more dangerous situation, than the present (is).'

The target of comparison in such a case appears in the nominative case, even though the verb is missing: i.e. for some reason, the Case Attraction rule is suspended in these cases. Note that the target then appears in the case it would have taken in the underlying comparative clause. Thus even though Greek, unlike Latin, seems to have no comparative clauses with overt verbs, this construction provides evidence of the clausal origin of these expressions.

4.3 Reflexive Targets

The evidence presented so far supports the claim that the comparative constructions I have called clausal are derived from full clauses. There is further evidence that even when the underlying clause is reduced by ellipsis to a single constituent, it retains the character of a clause, i.e. S-pruning does not occur.

- Greek has a construction in which the target of comparison is a reflexive pronoun:
- (20) *ὅταν ἐπιτιμὴ κινδύνη ὄβρι, τῶνάδ' αἰσίων ἐκτύχων λέγουσι*
'Whenever they are in any danger, they speak much worse than themselves.' (i.e. 'than they usually do')

This type of comparison, where the topic is compared with itself under other circumstances, can be made only with the phrasal construction, i.e. with a reflexive pronoun in the genitive case. It is ungrammatical if the clausal construction is employed. This follows automatically from the fact that Greek, like English, has a clause-mate constraint on Reflexivization, if it is assumed that the clausal comparative construction is a reduced clause, and remains a

Still, the sentences in (3) are not too bad, especially in comparison with the unhappy results of attempted chopping in (1)-(2). They are all versions of sentences which I have heard, and I think it is safe to predict that outside of an insane asylum or a convention of linguists one would not come across a sentence like those exemplified in (1)-(2). Henceforth I will adopt the practice of marking examples like those in (3) with a question mark, in explicit recognition of their less-than-perfect status; but I will be contrasting them with sentences which, like the (1)-(2) examples, are much worse.

2. The Ergative Movement Constraint

Note that (7) is ambiguous, with readings corresponding to (5) and (6):

- (5) Max likes Susan more than he does Alice.
 (6) Max likes Susan more than Alice does.
 (7) Max likes Susan more than Alice.

But when a constituent is questioned from the position of Alice in (7) the ambiguity disappears:

- (8) ? Who does Max like Susan more than?

Sentence (8) can only have the reading corresponding to (5); it cannot have the reading corresponding to (6).

Similarly, if a constituent from that position is relativized or clefted, the ambiguity disappears:

- (9) ? Alice is the one person Max likes Susan more than.
 ? It's Alice Max likes Susan more than.

These sentences are all, to be sure, somewhat unpalatable; the fact remains, however, that although the source is ambiguous, one reading becomes totally impossible under movement, while the other remains conceivable. The facts are perhaps more clearly illustrated by the following examples:

- (10) ? There is nothing than which I like avocados less.

* There is nobody than whom I like avocados less.

Here it is clear not only that there is differential mobility of targets according to whether they are underlying subjects or objects, but also that when the target is an underlying object it can move and pied pipe the than along as well.

So for some reason, the target of comparison is (weakly) movable when it's an underlying object, but not when it's an underlying subject, in the transitive constructions which we have considered here. But as we have seen (cf. the examples in (3) above) targets which are underlying subjects of intransitives can in general be moved. I will refer to the constraint which is responsible for this asymmetry as the Ergative Movement Constraint.²

3. Clausal and Phrasal Constructions

Classical Greek and Latin had two distinct comparative constructions. One of these, which I will call the phrasal construction, is exemplified in (11). The target of comparison appears as an NP in the ablative case in Latin, in the genitive in Greek:

- (11) Gato est Cicerone eloquentior.
 'Gato is more eloquent than Cicero.'
 (Cicerone = abl)
 Tua consilia sunt clariora luce.
 'Your plans are clearer than light.'
 (Luce = abl)
 Μεΐωυ τού ἀδελφοῦ
 'greater than his brother'
 (ἀδελφοῦ = gen)

Each of these languages also had another comparative construction, in which the target of comparison is introduced by a conjunction (quam in Latin, ἢ in Greek):

- (12) Hi libri sunt clariores quam illi (nom).
 'These books are more famous than those.'
 Contionibus (dat) accommodatior est quam iudicis (dat).
 'Pitner for popular assemblies than for courts.'
 Misericordia (abl) dignior quam contumelia (abl).
 'More worthy of pity than of disgrace.'
 Χρημᾶτα περὶ τρεῖσιν τριαστέσσι ἢ φίλοις
 money (acc) about more to consider than friends (acc)
 'to consider money as of more value than friends'
 ἀεκλιότερόν ἐστι ἢ καὶ ὕπερ ὁ σώματι
 more wretched is than p. diseased body (dat)
 καὶ ὕπερ ἡ ψυχῇ ἢ ἐνοσκέτω
 p. diseased soul (dat) to live
 'It is more wretched to live with a diseased soul than with a diseased body.'

The target of comparison appears preceded by the conjunction (quam or ἢ) and in the same case as the topic, even when, as in the examples below, the target would have been in a different case in the underlying comparative clause:

- (13) Ego hominem callidiorē vidi neminem quam Phormionem.
 I man (acc) more cunning saw nobody (acc) than Phormio (acc)
 'I never saw a man more cunning than Phormio.'
 ἐγὼ κτηφᾶς στρατεῦσθε τοὺς ἀειπύους ἢ Σκυθians
 against men (acc) to march much braver than Scythians (acc)
 'to march against men much braver than Scythians'

We must thus assume a rule of Case Attraction assimilating the case of the target in this construction to that of the topic.

⁸This must have happened in two stages itself. First *ts (including *d-s; as in *balssā* : *baldftli*) assimilated to *ss, which did not undergo the Retraction rule. Then *ss (as seen in *lissā* : *oos tixs*) later degeminated in regular fashion.

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Why There are two than's in English
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0. In this paper I consider certain puzzling facts about comparative constructions in English, and argue that they can be explained if it is assumed that English, like Latin, classical Greek, and various other languages, has two structurally distinct options for the representation of the target of comparison. One of these is realized in English as a reduced clause introduced by the conjunction (or "complementizer") *than*, and the other as a prepositional phrase construction, where the preposition of comparison happens to be homophonous with the conjunction of comparison. The argument for this analysis consists in showing that there are numerous languages which overtly have the two comparative constructions, which I will call the clausal and phrasal constructions respectively, and that there is a universal constraint on the use of the phrasal construction which is shared by the corresponding construction in English.

1. The Island Dissolution Phenomenon

It is well known that comparative clauses are islands, as demonstrated by the following pairs of sentences:

- (1) John is taller than Bill is.
 * Who is John taller than is?
 (2) Michael and Sarah owned more Matisse's than Gertrude did Picasso's.
 * It was Picasso's that Michael and Sarah owned more Matisse's than Gertrude did.

It has also been observed that they cease to be islands, or at least get weaker, if the clause is reduced to a single NP:

- (3) You finally met somebody you're taller than.
 A lot of them I like mine better than.
 Who does she eat faster than?
 Only Tom does Max have a chance of being stronger than.

Probably, these sentences deserve at best a weak question mark. Many people find them somewhat strange, and almost everybody would tend to prefer a paraphrase which avoids ripping the constituent following *than*, which I will refer to as the target of the comparison:

- (4) You finally met somebody shorter than you.
 A lot of them I like less than mine.
 Who doesn't eat faster than her?
 The only guy who's not certain to be stronger than Max is Tom.