

ENGLISH RELATIVIZATION AND IDIOM

MINORU NAKAU

0. INTRODUCTION

The standard treatment of relative clauses in English is by means of a transformational rule named Relative Clause Formation which operates on the condition of non-distinct identity of two fully specified Noun Phrases, one of which appears in antecedent position and the other of which appears in the associated underlying relative clause. This standard version, call it the matching analysis, is so formulated that the identical Noun Phrase is preposed to the initial position of the relative clause, which is simultaneously or subsequently pronominalized into a relative pronoun.

The only known ostensibly plausible alternative is what is sometimes referred to as the headless analysis, which was first proposed by Michael Brame.¹ This analysis is formulated in such a way as to substitute a certain Noun Phrase in the underlying relative clause for a dummy symbol which occupies the associated antecedent position.

There is another important type of relative clauses, that is, the free relative construction. Certain subtypes of free relative clauses have sometimes been discussed in previous transformational literature, but certain other types of free relative clauses, despite their theoretical relevance, have never been recognized in any previous discussion of English relativization. Due attention to these latter subtypes has led me to propose in Nakau (1973) what I called the dual proform analysis for the whole area of free relative clauses. This analysis requires the occurrence of a proform in the underlying relative clause as well as in

¹ This analysis was accessible to me only through Chomsky (1973, note 70) in the year of 1972, when I started thinking of the interaction of relativization and idiom. But it is now accessible through Brame (1976). See also Chiba (1972).

the associated antecedent position. This requirement then enables the matching analysis to subsequently apply under the non-distinct identity of two proforms. This whole line of argument leads us to the conclusion that free relative clauses are a special case of ordinary relative clauses.

In Section 1, I make a defense of the matching analysis over the headless analysis for ordinary relative clauses. In Section 2, I simply summarize, rather than elaborate, certain crucial arguments for the dual proform analysis for free relative clauses. One and the same important consequence about English idioms follows independently from the assumption of the matching analysis and the dual proform analysis. In Section 3, I describe this consequence as the broken idiom hypothesis, discussing independent motivation from certain other phenomena of English idioms.

1. DEFENSE OF THE MATCHING ANALYSIS FOR ORDINARY RELATIVE CLAUSES

1.1. Proponents of the headless analysis of ordinary relative clauses argue against the matching analysis because they believe that the latter cannot properly handle such examples as those in (1).

- (1) a. The headway which John made was fantastic.
 b. the pictures of each other_i that the men_i were looking at²

Consider first the (1a) sentence. In the headless analysis, this sentence will be derived from the deep structure (2a), whereas in the matching analysis, it will be derived from the deep structure (2b).

- (2) a. [Δ [John made headway]_S]_{NP} was fantastic
 b. [the headway [John made headway]_S]_{NP} was fantastic³

It is observed that under the matching analysis, as in (2b), *headway*, one component of a frozen idiom *make headway*, is forced to occur in antecedent position separated from the other component *make*, while

² This example is taken from Chomsky (1973, note 70).

³ The status of the definite article *the* in the head Noun Phrase can be controversial, since there are two possibilities: it may be a deep structure item or a transformationally inserted item. But I do not commit myself to either of these two possibilities because the choice does not concern us at the moment.

under the headless analysis, as in (2a), *headway* is rescued from occurring in isolation by the obligatory occurrence of a dummy symbol in antecedent position.

The comparison of the two competing analyses explicit in (2), therefore, clearly tells us that the reason behind the headless analysis is something like that stated in (3).

- (3) The components of frozen idioms like *make headway*, *keep tabs on*, *cast aspersions on* must occur in a cluster within the domain of a Sentence in deep structure, because there are no such sentences as:
- *The headway was fantastic.
 - *They threw/shed aspersions on my character.
 - *He makes/observes tabs on the student movement.

1.2. Consider, however, the following sentence, which contains two occurrences of *make headway*, both internally and externally to the relative clause:

- (4) John is not making the headway which he once made.⁴

Within the domain of the present discussion, three possible analyses suggest themselves, those stated in (5).

- (5) a. John is not making [the Δ [he once made headway]_S]_{NP}
 b. John is not making [the headway [he once made Δ]_S]_{NP}
 c. John is not making [the headway [he once made headway]_S]_{NP}

Under the headless analysis, sentence (4), it appears, should be derived from the deep structure (5a). In the light of the reason behind this analysis outlined in (3), however, there is no sense whatsoever in which (5a) is chosen over (5b), because there is no reason for which one of the two occurrences of *make headway* in the main and relative clauses must take precedence over the other.

This observation thus provides compelling evidence indicating that the headless analysis is ill-founded and hence highly dubious. What necessarily follows is that sentence (4) must be derived from the deep structure (5c), where *headway* occurs in a cluster with *make* both in-

⁴ This sentence I invented for the present purpose, and several native speakers of English who I checked with found it perfectly acceptable.

ternally and externally to the relative clause.

1. 3. Such examples as (1b) might at first glance appear to argue for the headless analysis, but when the whole truth is revealed, they turn out to constitute no argument at all.

While the matching analysis requires (1b) to be derived from the underlying structure (6a), the headless analysis allows it to be derived from (6b).

- (6) a. [the pictures of each other_i [the men_i were looking at the pictures of each other_i]_S]_{NP}^{5,6}
 b. [Δ [the men_i were looking at the pictures of each other_i]_S]_{NP}

The comparison of the two opposing analyses explicit in (6) seems to show that the reason behind the headless analysis would look like the following:

- (7) Only under the headless analysis can one basic generalization be captured in deep structure; namely, *each other* and its antecedent, as in the relation of reflexive pronouns and their antecedents, appear within the domain of a simplex sentence, because there exist no such sentences as:
 a. *The pictures of each other have come out well.
 b. *John and Bill_i thought that Mary liked each other_i.

1. 4. The reason behind the headless analysis outlined in (7), which concerns one basic generalization about reciprocalization, provides an account of why Noun Phrases containing *each other* like that in (1b) occur in the antecedent position of an underlying relative clause in surface structure, but certain difficulties arise when phenomena of *each other* are viewed in broader perspective.

Thus contrast the following two sentences, which constitute an active-passive pair with the phrase (1b) embedded:

- (8) a. The pictures of each other_i that the men_i were looking at were

⁵ The Noun Phrases subscribed by the same index number *i* are intended to have the same referent.

⁶ It is irrelevant to the present discussion whether *each other* is a deep structure item or a transformationally derived item.

- broken into pieces by the women_j.
- b. The women_i broke into pieces the pictures of each other_i that the men_j were looking at.

It is evident that *each other* has different referents depending on different linguistic contexts where it appears; thus, as is indicated by the same index numbers, *each other* in (8a) has the same referent as *the men*, but *each other* in (8b) has the same referent as *the women*.

Under the headless analysis, the sentences in (8) would be derived from, roughly, the underlying structures exemplified in (9), respectively, provided that a passive is derived from virtually the same deep structure as that of its active counterpart.

- (9) a. the women_j broke into pieces [Δ [the men_i were looking at the pictures of each other_i]_S]_{NP}
 b. the women_i broke into pieces [Δ [the men_j were looking at the pictures of each other_i]_S]_{NP}

The greatest trouble with the headless analysis is that even under this analysis, the basic generalization about reciprocalization, stated in (7), does not work properly, because it is only motivated by (9a), but not by (9b). In (9b), *each other* and its intended antecedent *the women* are located beyond sentence boundaries, and thus the basic generalization does not hold of this pair. This observation then shows the high ad-hocness of the headless analysis.

Another serious difficulty comes from a consideration of the whole derivation of (8a) from (9a), where, as seen above, reciprocalization can be captured correctly in terms of deep structure, as expected in (7). The problem here is that passivization *must* apply obligatorily whenever relativization has applied; otherwise, an unexpected surface structure with an unintended meaning will derive, that is, sentence (8b). This situation thus requires the presence of an ad-hoc condition of a so far unknown type on the interaction of relativization and passivization.

There is, therefore, no way out of these difficulties except by way of concluding that the headless analysis is incorrect.

1.5. It remains to consider the problem of how to account for the

each other phenomena involved in the active-passive pair (8), given the matching analysis for ordinary relative clauses.

Closer inspection of the sentences in (8) reveals that whatever is the correct generalization about reciprocalization involves the notion of surface structure configuration with the order of *each other* and its antecedent. This observation fits in with Jackendoff's interpretive theory of reciprocalization.⁷ Within the framework of this interpretive theory, therefore, the matching analysis will derive the sentences in (8) from virtually the same deep structure shown in (10).

- (10) the women broke into pieces [the pictures of each other [the men were looking at the pictures of each other]_S]_{NP}

There are two highly probable candidates for the antecedent of *each other*: *the women* and *the men*. But at this level of deep structure, it is undetermined which Noun Phrase serves as the antecedent. It can be determined only in terms of surface structure. Since the matching analysis is not motivated by any assumption about reciprocalization, there is no conflict between this analysis and the interpretive framework of reciprocalization.

1. 6. There is one theoretical problem which suggests the inadequacy of the headless analysis; namely, how would this analysis specify which Noun Phrase to be raised into the dummy-antecedent position? Thus, observe, for instance, the supposed underlying structure, (2a), for sentence (1a). These are repeated here as (11).

- (11) a. The headway which John made was fantastic. (=1a)
 b. [Δ [John made headway]_S]_{NP} was fantastic (=2a)

In this assumption, the headless analysis allows the raising of either of the two Noun Phrases, *John* and *headway*. In other words, the headless analysis cannot determine uniquely the raising of one rather than the other of the two Noun Phrases. Thus we cannot prevent the headless analysis from deriving bad sentences like **John who made headway was fantastic*, if such a proper noun as *John* is raised into the

⁷ Cf. Jackendoff (1972, Chapter 4) for discussion of an interpretive theory of pronouns and reflexives.

dummy position, since there is no principled basis for precluding proper nouns from the range of Noun Phrases which are qualified to undergo the raising.

With the matching analysis, however, there arises no such theoretical problem.

2. SUMMARY OF THE DUAL PROFORM ANALYSIS FOR FREE RELATIVE CLAUSES

2.1. In Nakau (1973), I proposed what I referred to as the dual proform analysis for the whole range of free relative clauses in English. Under this analysis, sentence (12a), for instance, will be derived from the deep structure (12b).

- (12) a. What I say is true.
 b. [PRO [I say PRO]_S]_{NP} is true

The crucial property which distinguishes this analysis from all other possible analyses is that, as exemplified in (12b), it requires the occurrence of a proform not only in antecedent position but also in the associated underlying relative clause.⁸

Any proform analysis seems to me the most negative approach to providing an explicit account of a linguistic phenomenon. What may be legitimately viewed as providing "direct" justification for a proform analysis is exclusion of all apparently plausible alternative analyses in which a fully specified item occupies the same position that a proform occupies under the proform analysis.

In this section, however, I take up for refutation only what has been widely accepted as the standard analysis for the free relative construction, that is, the *something* analysis, under which *something* appears in antecedent position as well as in the associated underlying relative clause. Under this analysis, sentence (12a), for example, will be derived from the deep structure (13).

- (13) [something [I say something]_S]_{NP} is true

Since the *something* analysis unduly focuses upon ordinary types of

⁸ Similar analyses are proposed in Kuroda (1969), but his formulations are more elaborate—in fact, it seems to me, too elaborate to be amply supported on syntactic grounds.

free relative clauses, like those in (12a) and (14), it may never be taken to be an integrated theory of free relative clauses.

- (14) a. He sent what she told him to send.
 b. Eugene McCarthy understands the significance of what the young have become.
 c. This is a roughly accurate statement of what is likely to occur.

Crucial evidence for the dual proform analysis comes from various considerations of certain subtypes of free relative clauses, whose existence and theoretical impact, to the best of my knowledge, have never been discussed in any previous transformational literature. These subtypes, unlike such ordinary types as those in (14), contain a Predicate nominal to which the free relative pronoun *what* bears a copular (i.e., an identity or inclusion) relation, as illustrated in (15).

- (15) a. Japan has what is perhaps the world's strongest currency, the yen.
 b. I am going to answer the question in what I hope is a sensible way.
 c. The man known to me as Pedro gave me what appears to be a Polaroid photograph.
 d. In Paris Van Gogh turned into what one critic called a "singing bird".

A copular relation is involved in each of the free relative clauses in (15); thus, in particular, a copular relation holds between *what* and *the world's strongest currency* in (15a), as is evidenced by the existence of *is*. Similarly between *what* and *a sensible way* in (15b). A copular relation in (15c), which holds between *what* and *a Polaroid photograph*, is also explicit in the predicate phrase *appears to be*. But a copular relation in (15d), which holds between *what* and *a "singing bird"*, is implicit in the inherent nature of the verb *call*.

What is intended in this section, therefore, is to demonstrate why the proform must appear in antecedent position as well as in the underlying relative clause by presenting crucial examples of the type seen in (15) which argue against the occurrence of the lexically specified item *something* in these two positions. This demonstration will surely exclude automatically any variant of the *something* analysis, in particular, a pro-

antecedent analysis under which, a proform appears in antecedent position, while *something* appears in the underlying relative clause.⁹

2.2. The first subtype of free relative clause which provides compelling evidence for the dual proform analysis is illustrated in the sentences in (16), where the free relative pronoun *what* intervenes between the components of an extremely frozen idiom constituting a Verb Phrase.

- (16) a. The boat has made what appears to be fantastic headway.
 b. John keeps what appears to be accurate track of all parameters.
 c. John keeps what seem to be close tabs on the people in the movement.

The *something* analysis is dually impossible with respect to these sentences. First, for a reason external to the underlying relative clause, it is impossible, as is seen from the ungrammaticality of the sentences in (17).

- (17) a. *The boat has made something which appears to be fantastic headway.
 b. *John keeps something which appears to be accurate track of all parameters.
 c. *John keeps something/some things which seem(s) to be close tabs on the people in the movement.

The ungrammaticality of the strings in (17) is precisely due to the fact that they break strict cooccurrence restrictions which obtain between *make* and *headway*, between *keep* and *track*, and between *keep* and *tabs*, since the lexical item *something* has a fixed set of features of its own which is distinct from *headway*, *track*, and *tabs*. This observation thus provides evidence for the occurrence of a proform, but not the lexically specified item *something*, in antecedent position.

The *something* analysis is hopeless with respect to the sentences in (16) for another reason, namely, for a reason internal to the underlying relative clause. Under this analysis, the following strings are involved at some stages of the derivations.

⁹ This pro-antecedent analysis is assumed in Chomsky (1973), among other places.

- (18) a. *Something appears to be fantastic headway.
 *Something is headway.
 b. *Something appears to be accurate track.
 *Something is track.
 c. *Some things seem to be close tabs.
 *Some things are tabs.

These strings are all impossible in the intended senses, because *headway*, *track*, and *tabs* have no features which enable the Copula (or copular variants) to equate them with *something* (or *some things*). In particular, the latter example in (18c) might be possible only when *tabs* has a literal meaning, that is, a meaning which is not inherent in the *tabs* of the frozen idiom in question. This whole observation then provides evidence for the occurrence of a proform rather than the lexical item *something* in the underlying relative clause.

2. 3. The second subtype of free relative clause which argues against the *something* analysis in favor of the dual proform analysis also involves the property of extreme frozenness of idioms, this time, those constituting a Prepositional Phrase, like *at the crossroads* in (19a).

- (19) a. The Mayfields were at what is known as the crossroads.
 b. *The Mayfields were at something which is known as the
 crossroads.
 c. *Something is known as the crossroads.
 *Something is the crossroads.

The *something* analysis entails that (19b) and (19c) are involved at some stages of the derivation of sentence (19a). (19b) and (19c) are impossible in the intended sense. This observation therefore provides another piece of crucial evidence for the occurrence of a proform, but not *something*, not only in the antecedent position but also in the underlying relative clause of the free relative construction.

2. 4. The third subtype of free relative clause which demonstrates the incorrectness of the *something* analysis, thus supporting the dual proform analysis, is exemplified in such sentences as those in (20), where the free relative pronoun *what* separates the components Preposi-

tion and Noun of bounded Prepositional Phrases, particularly, those of manner.

- (20) a. I am going to answer the question in what I hope is a sensible way.
 b. It is possible to bring together contrasts and similarities in whatever seems to be the most illuminating way.

These sentences are also insusceptible of the *something* (or its variant *anything*) analysis, as shown in (21).

- (21) a. *I am going to answer the question in something which I hope is a sensible way.
 *Something is a (sensible) way.
 b. *It is possible to bring together contrasts and similarities in anything which seems to be the most illuminating way.
 *Anything/Something is the most illuminating way.

The above examples illustrate the boundedness of manner Prepositional Phrases, but the same observation can be made for other Prepositional Phrases like those of place, time, and reason.

2. 5. The most telling argument against the *something* analysis results from such sentences as those in (22), where the free relative clause contains a Predicate nominal which is human.

- (22) a. I am not what the American student calls a "soft grader".
 But I am, I think, is a just grader.
 b. He is what seems to be the greatest scholar to come to light in a long while.

These examples are the last to accept the *something* analysis in respects both external and internal to the underlying relative clause. Thus observe (23) and (24).

- (23) a. *I am not something which the American student calls a "soft grader". But I am, I think, a just grader.
 b. *He is something which seems to be the greatest scholar to come to light in a long while.
 (24) a. *The American student calls something a "soft grader".
 *Something is a "soft grader".

- b. *Something seems to be the greatest scholar to come to light in a long while.
 *Something is the greatest scholar.

The strings in (23) show that the *something* analysis fails for a reason external to the underlying relative clause, whereas the strings in (24) show that the analysis in question does not work for a reason internal to the underlying relative clause. These strings are all ungrammatical, because *something* cannot be equated with a human Noun Phrase, except for sentences like *He is something (of a scholar)*, where *something* has a special meaning—a meaning different from that of the *something* of the strings in (23). In such human Predicate nominal cases as those in (22), therefore, only the dual proform analysis can correctly effect the free relative pronoun *what* from the unspecified element PRO accompanied by *which*.

3. CONSEQUENCE OF THE MATCHING ANALYSIS AND THE DUAL PROFORM ANALYSIS

3.1. In Section 1, I have made a defense of the matching analysis against the headless analysis for ordinary relative clauses in English. From the matching analysis follows one important consequence concerning English idioms.

Under the matching analysis, such sentences as that in (25a), which contain extremely frozen idioms, should be derived from underlying structures like that in (25b).

- (25) a. The headway which John made fantastic.
 b. [the headway [John made headway]_S]_{NP} was fantastic

Explicit in this particular analysis is the fact that *headway*, one component of the frozen idiom *make headway*, occurs in isolation as the antecedent of the relative clause.

A necessary consequence of the matching analysis can then be described as the following—call it the broken idiom hypothesis:

- (26) Any component of a frozen idiom (e.g., *make headway*, *keep tabs on*, *keep track of*) may occur in deep structure in isolation, i.e., separated by sentence boundaries from its fellow components.

3.2. It is important to note that the broken idiom hypothesis as stated in (26) is independently supported on syntactic grounds. In the immediately preceding section, I have demonstrated, by way of summarization, that the source of the free relative construction must contain a proform not only in antecedent position but also in the associated underlying relative clause. Also from this particular analysis results the broken idiom hypothesis.

Under the dual proform analysis, such sentences as that in (27a), in which extremely frozen idioms are crucially relevant to relativization, must be derived from underlying structures like that in (27b).

- (27) a. The boat has made what appears to be fantastic headway.
 b. the boat has made [PRO [PRO appears to be fantastic headway]_S]_{NF}

Explicit in this particular analysis is the fact that the components *make* and *headway* of an extremely frozen idiom *make headway* appear isolated from each other by sentence boundaries. It is the case, therefore, that given the dual proform analysis, the broken idiom hypothesis as stated in (26) follows.

3.3. What must be emphasized here is the fact that the broken idiom hypothesis makes a claim which runs counter to the widely held view of English idioms as spelled out in (3) in Section 1. However, this hypothesis must strike any sensible transformationalist as natural and plausible. There are, in fact, certain surface structure phenomena of idioms which support the plausibility of the hypothesis in question.

Consider the following sentences, where the components of a frozen idiom *make headway* appear separated from each other in various ways:

- (28) a. John made fantastic headway.
 b. Fantastic headway John made.
 c. Fantastic headway was made by John.
 d. What John made was fantastic headway.
 e. It was fantastic headway which John made.
 f. The headway which John made was fantastic.
 g. John made what appears to be fantastic headway.

There is no doubt that the frozen idiom *make headway* as a whole

must be labeled as a Verb Phrase, but all the examples in (28), though they apparently vary in acceptability, clearly show that one component *headway* (or *fantastic headway*) must further be labeled as a Noun Phrase. Thus, in particular, (28a), whether transformationally derived or not, illustrates that *fantastic headway* constitutes a Noun Phrase simply because it is a Noun that is syntactically modified by an adjective like *fantastic*. The other examples are clearly transformationally derived—in fact, derived by certain transformations relating to a Noun Phrase, thus (*fantastic*) *headway* being analyzed as a Noun Phrase. All this observation then suggests that it is not sufficient to assign a syntactic category to a frozen idiom as a whole but, rather, that a syntactic category must independently be assigned to each of the components of the idiom. This follows as a necessary consequence from the broken idiom hypothesis, because under this hypothesis, any idiom-component is supposed to behave exactly like an ordinary lexical item, thus occurring in isolation and being independently assigned a syntactic category.

3. 4. Given the broken idiom hypothesis, the problem arises as to how we should account for the selectional restrictions of idioms—in other words, cooccurrence relations among the components of an idiom. As is evident from supposed underlying structures ilke those in (25b) and (27b), where the components of an idiom occur separated from each other, the selectional restrictions of idioms cannot be accounted for by the standard theory of selectional restrictions but, rather, by an interpretive theory, because idioms are not required to occur as such in deep structure.

There is independent evidence for the surface interpretation of idioms. Thus observe the following examples:

- (29) a. *The headway was fantastic.
 b. The headway which John made was fantastic.
 c. *The headway which John made was elastic.

The contrast of (29a) and (29b) reveals two relevant points; first, it is not the head Noun Phrase *the headway*, but the whole complex Noun Phrase *the headway which John made* that contributes to the determina-

tion of grammaticality, because if the converse were true, (29b) should also be expected to be ungrammatical. Second, this whole complex Noun Phrase is a surface structure phenomenon, because relativization is involved in the derivation of the phrase in question. From this observation, then, it follows that the ungrammaticality of (29c), which is due to the selectional incompatibility of the complex Noun Phrase with a copular Predicate *elastic*, can only be determined in terms of surface structure. In other words, (29c), and similarly (29a), will come out as syntactically well-formed, but as semantically ill-formed.

4. CONCLUSION

The whole paper is aimed at proposing one hypothesis about English idioms, which I have called the broken idiom hypothesis. This hypothesis, contrary to a widely accepted view of idioms, claims that the components of an idiom may occur in deep structure isolated from each other by sentence boundaries. This means to say that any idiom-component syntactically behaves exactly like ordinary lexical items. The correctness of this hypothesis is demonstrated by various considerations of the interaction of relativization and idiom in English. Thus, in particular, the hypothesis in question is shown to follow independently from the assumption of the matching analysis for ordinary relative clauses, and from the assumption of the dual proform analysis for free relative clauses.

REFERENCES

- Brame, Michael K. 1976. *Conjectures and refutations in syntax and semantics*. Amsterdam: North-Holland.
- Chiba, S. 1972. Another case for 'Relative clause formation is a copying rule'. *Studies in English Linguistics* 1: 1-12 (Asahi Press, Tokyo).
- Chomsky, N. 1973. Conditions on transformations. A festschrift for Morris Halle, ed. by S. R. Anderson & P. Kiparsky, 232-86. New York: Holt, Rinehart & Winston.
- Jackendoff, R. S. 1972. *Semantic interpretation in generative grammar*. Mass.: MIT Press.
- Kuroda, S.-Y. 1969. English relativization and certain related problems. *Modern studies in English*, ed. by D. Reibel & S. Schane, 264-87. New Jersey: Prentice-Hall.
- Nakau, M. 1971. The grammar of the pseudo-free relative pronoun *what*. *English*

Linguistics 6: 2-47 (Kaitakusha, Tokyo).

- . 1973. The deep structure of English free relative clauses. *Studies in English Literature (English Number)*, 117-41 (The English Literary Society of Japan, Tokyo).
- Thompson, S. 1971. The deep structure of relative clauses. *Studies in linguistic semantics*, ed. by C. Fillmore & D. T. Langendoen, 78-94. New York: Holt, Rinehart and Winston.