Squibs and Discussion

Consider the following sentences:

(1) This class is characterized by the verb under which is embedded the S containing the cyclic subject.

(2) They are planning to destroy the old church, in the basement of which are buried many famous revolutionary heroes.

In (1) and (2) the subject NP of the relative clause has shifted to postverbal position. Let us call this process Subject Shift. In both sentences a preposition or prepositional phrase has pied piped along with the relative pronoun. If Pied Piping, which is normally optional, fails to occur, then Subject Shift is impossible:

(3) This class is characterized by the verb which the S containing the cyclic subject is embedded under.

(4) *This class is characterized by the verb which is embedded the S containing the cyclic subject under.

(5) *This class is characterized by the verb which is embedded under the S containing the cyclic subject.

((5) is, of course, grammatical, but not on a reading corresponding to (3).)

(6) They are planning to destroy the old church, which many famous revolutionary heroes are buried in the basement of.

(7) *They are planning to destroy the old church, which are buried many famous revolutionary heroes in the basement of.

(8) *They are planning to destroy the old church, which are buried in the basement of many famous revolutionary heroes.

What rule can be responsible for Subject Shift? In these examples, it looks something like Heavy NP Shift, but we know that in general Heavy NP Shift applies only to nonsubjects:

(9) The administration would consider foolish any suggestion that they should open their account books to inspection by the students.

(10) *Ordered the troops to attack the commander who was newly arrived.
(11) *John thinks is ridiculous the claim that Nixon is responsible for the increased incidence of sciatica.

Furthermore, the shifted subject does not seem to have to be particularly heavy:

(12) They are planning to destroy the old church, under which are buried six martyrs.

The only rule known that could effect Subject Shift is the rule of Subject-Verb Inversion (hence SVI) (cf. Emonds 1970, 10 ff.). This rule is triggered by the preposing of an adverbial phrase, and is subject to ill-understood semantic constraints as well (cf. Bolinger 1971):

(13) Round the bend came the train.
(14) Under this verb is embedded the S containing the cyclic subject.
(15) In the basement of the old church are buried many famous revolutionary heroes.

(Emonds discusses only cases like (13), and claims that only simple verbs can be involved in this inversion. However, there seems to be no reason to suppose that it is a different rule that is involved in (14) and (15).)

As (14) and (15) show, SVI is possible in nonembedded Ss corresponding exactly to the relative clauses which permit Subject Shift. Also, if we find a case where SVI is for any reason impossible in a nonembedded S, Subject Shift is impossible in the corresponding relative clause:

(16) *For the salt reached John.
(17) *The salt for which reached John spilled on the floor.

The assumption that SVI is triggered only by the fronting of adverbs is not precisely correct, for there are cases where it occurs even when what is fronted is by no means an adverb:

(18) To these causes are attributed most of the financial catastrophes of the decade.
(19) To the social director fell the task of finding accommodations for all the visiting ichthyologists.
(20) Sitting on the stump was a big, ugly toad. (Bolinger 1971)

And in these cases Subject Shift is also possible in the corresponding relative clauses:
(21) These are the causes to which are attributed most of the financial catastrophes of the decade.

(22) I met the social director to whom fell the task of finding accommodations for all the visiting ichthyologists.

(23) In the center of the clearing was a stump, sitting on which was a big, ugly toad.

Another restriction of SVI is that it cannot occur if the predicate contains an NP:

(24) *To these causes attributed the senator most of the financial catastrophes of the decade.

(25) *Under the old church buried the former inhabitants of the town six martyrs.

And Subject Shift is subject to the same restriction:

(26) *These are the causes to which attributed the senator most of the financial catastrophes of the decade.

(27) *They are planning to destroy the old church, under which buried the former inhabitants of the town six martyrs.

The conclusion seems inescapable that Subject Shift is nothing other than SVI.

SVI is then clearly not, as Emonds claims, a root transformation. Perhaps a distinction can be found, different from the root/nonroot distinction, which will account for the fact that relative clauses allow SVI and other embedded Ss do not.

That point aside, it is not clear how the condition for SVI can be stated. As noted, it is not so simple as that preposing an adverb allows SVI. The class of constituents prepostable by the rule of "Adverb" Preposing is not at all easy to specify. As Emonds noted, "Adverb" Preposing must be distinguished from Topicalization because it does not occasion comma intonation following the preposed constituent; only a restricted class of constituents has this property, and it is exactly these constituents which allow SVI if they are fronted. Thus there is a problem with the statement of the rule which has been called Adverb Preposing; and even if we had a statement for that rule, it would not be possible to simply have SVI triggered by previous application of Adverb Preposing; for in the relative clause cases, it is not Adverb Preposing but Relative Clause Formation, together with Pied Piping, which effects the fronting of the triggering constituent.

It appears that we must say that SVI may occur whenever a constituent of the inversion-triggering class is fronted.
by whatever rule, as long as the other conditions for SVI (i.e., the semantic conditions, the condition that the predicate contain no NP, etc.) are met. But note that nothing in the currently posited structure of a sentence like (21) allows us to explicitly identify the preposition phrase to which as a potential trigger for SVI, as opposed to for which in (17), which is not a potential trigger.

Even if a way could be found to characterize this distinction, it appears that the class of constituents subject to “Adverb” Preposing must be mentioned twice: once in the statement of the rule of “Adverb” Preposing, and again in the statement of conditions for SVI.

The situation is reminiscent of the kind of phenomenon which has been called a “conspiracy” in phonology (cf. Kisseberth 1970). The rule of Relative Clause Formation, together with Pied Piping, produces exactly the effect of Adverb Preposing, including triggering SVI. If this is the case, there is clearly no way to state the relevant generalization without making use of some device of far greater power than that allowed to transformational rules. (For some discussion of a device which has the requisite power, cf. Hankamer 1972.)

References


Lakoff (1970) proposes a test for distinguishing instances of ambiguity from vagueness. The fact that identity of underlying structures is required for VP Deletion to operate has the interesting consequence that if sentences, each n-ways ambiguous, can be conjoined with a form of so + Aux in place of the second VP, the resultant sentence will itself have n rather than n² readings. Thus,

(1) a. John hates fighting mosquitoes and so does Fred.

can mean either (1b) or (1c):

Intentionality: A Source of Ambiguity in English?

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