

Free Relatives

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I. The Basics

Here are some examples of FRs¹:

- (1) I will eat what you cook
- (2) I will eat whatever you cook

There are immediate and obvious reasons to think that wh-movement has taken place. A wh-word appears away from the position to which it belongs thematically. Moreover, this distance is subject to islands:

- (3) I will read what John believes Mary has written t
- (4) *I will read what John met the woman who has written t

Despite having apparent Wh-chains in common², FRs and Qs have clearly different interpretations:

¹ The appearance of –ever is governed by syntactic and semantic factors
It is obligatory when the Wh-word is the subject of the FRs:

- i. Who*(ever) wins the race will marry the princess
- ii. I will hire who*(ever) walks into the room next

Vj g"ugo cpve's wgu'kp'ku'y g'f k'ht gpeg'k'o gcp'kpi 'dgw ggp'y j "cpf 'y j - gxgt'HTu0
 Vj gtg'ku"eqpuk' gtcdr'ugo cpve'rkgtcwt'g'qp'yj ku.'y j kej 'y g'y kmpqv'cf f tguu'j gtg0

² There are many languages in which the question words are different from relative pronouns and different from FRs as well. Greek is an example of this:

Relative pronoun FEM, SG, ACC	Interrogative pronoun FEM, SG, ACC	FR pronoun FEM, SG, ACC
tin opian	piá	ópia

- (5) I ate what he cooked
- (6) I know what he cooked

FRs have been argued to be definite descriptions by some, universally quantified by others. Basically, FRs have a maximizing effect, which we will paraphrase here with a definite description. The following means that I read the thing(s)/everything that you gave me (we will refer this as the "bland definite" reading of FRs):

I. Bland Definite

(7) I read what you gave me = I read the thing(s) you gave me

But there are three additional readings of FRs (von Stechow 2000):

II. Ignorance reading:

(8) I really want to meet whoever wrote this paper (=I don't know who wrote it)

III. Indifference:

(9) He voted for whoever was at the top of the ballot (=He didn't care who he voted for; he randomly picked the first person on the list)

IV. Generalizing:

(10) He eats whatever I cook (=Whenever I cook something, he eats it)

The suffix *-ever* is licensed by the Ignorance, Indifference and Generalizing readings, but these readings can also be found with the plain wh-word. That is, a FR with just the wh-word can generate, in addition to the bland definite, the Ignorance, Indifference or Generalizing readings. The bland definite reading is not possible with wh+*ever*.

In addition, syntactically, Qs are CPs (7,8 below are from BG 332 but now we have many more ways of diagnosing/capturing this)³:

- (7) It is not obvious to me that you are six feet tall
 whether you are tall enough
 how tall you are
 *six feet tall
 *a tall man
 *all the facts
- (8) Do you care that your shoes are muddy?
 how muddy your shoes are?
 whether or not your shoes are muddy?
 *your shoes
 *very muddy

On the other hand, FRs have the category of the wh-word. (1,2,5) are DPs. Consider also (Bresnan and Grimshaw 1978):

- (9) I will buy [whichever book you give me]
(10) John will be [however tall his father was]
(11) She vowed to become [however rich you have to be to get into
 that club.]
(12) I'll word my letter [however you word yours.]
(13) I can run [however fast you can run]
(14) I'll put by books [wherever you put yours]
(15) John will leave [whenever Mary leaves]

How the category of the FR is determined on the basis of the category of the wh-word is an important question about FRs.

II. The two major initial approaches.

The stage is set by two seminal papers:

³ Other obvious formal differences between Qs and FRs often given are that there are no multiple wh-FRs, that –ever cannot appear with Qs. But see Rawlins on this wrt unconditional adjuncts.

J. Bresnan and J. Grimshaw (1978): “The Syntax of Free Relatives”,
Linguistic Inquiry 9.3, 331-391

and

Groos and H. v. Riemsdijk (1981): “Matching Effects in Free Relatives: a
Parameter of Core Grammar” in *Theory of Markedness in Generative
Grammar*, Scuola Normale Superiore, Pisa, A. Belletti et al. eds. 171-216

After that, for a long time, everybody who wrote on the syntax of FRs wrote
in support of one of the camps established by the above authors.

BG bring a number of arguments to the fore to argue for the following
proposal, which has come to be known as the “Head Hypothesis of FRs”
(because the answer to the question of where the wh-word is is that it is
the head of the relative clause):

(16) Bresnan and Grimshaw (1978): eat what [you cook ~~that~~]_{IP}

FRs are not headless, but headed relatives. The head of the relative
clause is the wh-word. That is, the wh-word is not inside the relative but
outside it. The relative clause on it is more or less a regular relative
clause. This relative clause, though, is an S/IP, not S-bar/CP. The reason
for this is simple: if it were a CP, we would be predicting that its SPEC
could be filled with a wh word or its head with the complementizer *that*,
contrary to fact:

(17)a. *I ate what which/what he cooked
b. *I ate what that he cooked

In the position of the gap in the relative there is a proform identical in
everything to the wh-word/head of the relative. This identity permits
(triggers?) deletion of the proform. This is called “Controlled Pro
Deletion”. So the relation between the wh-word and the gap is not one
of movement. What about the islands then? BG: islands constrain this
deletion operation⁴.

⁴ BG: in both movement and FR formation subjacency is obeyed in the following way.
The wh-word is looking down the tree to bind an appropriate syntactic variable. If it finds
one in its clause, fine. If not, it gives its index to the next down free COMP. Then the

Here are some of BG's arguments:

- The Wh-word determines agreement on the verb (unlike the wh-word of a Q). Therefore the wh-word is outside the relative:

(18)a. What books she has isn't/*aren't certain

b. Whatever books she has are/*is marked up with her notes.

- There is no pied-piping if the matrix environment doesn't permit it (unlike Qs and relatives). Therefore the wh-word is outside the relative.

Pied Piping is possible and sometimes obligatory in English:

(18) I'll read the paper which John is working on

(19) I'll read the paper on which John is working

(20) I'd like to know which paper John is working on

(21) I'd like to know on which paper John is working

(22) *I'd like to know what manner Dickens died in

(23) I'd like to know in what manner Dickens died

In FRs, pied-piping is never an option:

(24) I'll reread whatever paper John is working on

(25) *I'll reread on whatever paper John is working

(26) *John will describe in whatever manner Dickens died

(27) *John will describe whatever manner Dickens died in

For BG, the lack of pied-piping is simply the result of the fact that the preposition has no reason to be there since the matrix verb does not subcategorize for a preposition. When it does, then, of course, we can

precedure starts again but with (the index on) COMP looking for something to bind. This process cannot cross more than one bounding node at a time.

This process brings about subjacency effects.

have a preposition in front of the wh-word (see Larson and Grosu on this topic, which is a lot more complicated than I'm making out here):

(28) I will work on whatever problem John assigns

(29) I will work on whatever problem John is working on

This is in an extremely small nutshell, the substance of BG. It is a very interesting and rich paper and makes for a very good read.

The biggest criticism against BG was raised in GR, also a must read on the topic. Their proposal is called the "COMP Hypothesis", because again of the answer to the question where the wh-word is in a FR. For GR, the wh-word is in the COMP of the relative clause. The head of the relative clause is a phonetically null element.

Their strongest (and very famous by now) argument against the Head Hypothesis comes from extraposition. Basically, it is this:

German has extraposition of clauses but not of DPs:

(30) Der Hans hat [das Geld, das er gestohlen hat], zurueckgegeben
Hans has [the money that he stolen has] returned

(31) Der Hans hat [das Geld] zurueckgegeben, [das er gestohlen hat]
Hans has [the money] returned, [that he stolen has]

(32) *Der Hans hat zurueckgegeben [das Geld, das er gestohlen hat],
Hans has returned [the money that he stolen has]

What happens when you try to do extraposition with a FR? (you have to do a lot to find the right environment, though, see GR on this. E.g. extraposition of a headed relative from subject position or object of P is possible, but not of a FR)

According to the Head Hypothesis, the wh-word, which is the head, should stay where it is and the relative clause should extrapose. According to the COMP Hypothesis, the wh-word will travel with the relative clause. The latter is, in fact, what we find:

(33) Der Hans hat [was er gestohlen hat] zurueckgegeben
the Hans has [what he stolen has] returned

(34) *Der Hans hat [**was**] zurueckgegeben [**er gestohlen hat**]

(35) Der Hans hat t zurueckgegeben [**was er gestohlen hat**]

It is obvious that for GR the island effects constraining the distance between the *wh*-word and the gap follow from general constraints on movement.

The fact that we never have a null operator or *that* introducing the relative clause, GR attribute to the filter against deleting unrecoverable items (both the head and the relative pronoun would be null).

How do GR derive the fact that there is no pied-piping in FRs, whereas there is in full relatives? We will partly address this in the next section. However the PP facts are extremely complex and we cannot do justice to them here. Again, visit the Larson/Grosu debate for many, many details.

III. The Matching Effect

Languages that observe the matching effect are called “matching languages”; languages that do not are called “non-matching”. Most of the spoken languages that FRs have been described in are matching. As for non-matching languages, the ones always mentioned are Classical Greek, Archaic German, Old French and Old Spanish. Of these Classical Greek has received the most attention in the literature..

What is the matching effect?

Consider the following sentence:

(36) The princess will marry whoever wins the race.

(37) Whoever the king picks will marry the princess

What would you expect the Case on *whoever* to be? If this wh-word were part of the matrix (as in BG), you expect Accusative. If it were part of the relative (as in GR) you expect Nominative. The reverse for (37).

The fact is that in languages with overt morphology this sentence is unacceptable. That is, in languages with overt Case morphology you can use a FR only if the Case that the wh-word would get in the matrix matches the Case it would get in the relative. This is the matching effect. (The matching effect is visible with other categorical features, including syntactic category; see papers for details, below data from vR):

(38) She will make you however happy your ex made you

(39) I'll play my music however loudly you play yours

(40) *She will marry however happy her ex made her

(41) *I'll play my music whatever rock opera you are listening to

In non-matching languages the wh-word has the Case it would have from the relative except if the optional phenomenon of Case Attraction takes place (an option also for headed relatives, at least for Classical Greek). See Hirschbuehler (1976).

BG's solution to the matching effect is incorporated in the conditions under which Controlled Pro deletion can apply: the (head) wh-word and the (relative-clause-internal proform) have to be identical, otherwise Controlled Pro Deletion cannot apply.

GR introduce what they call the "COMP Accessibility Hypothesis". According to this hypothesis, the COMP (SPEC/CP in our terms) of the relative is accessible from the matrix. This is possible because the head is null. The matching Effect is the result of the wh-word being visible from both the matrix and the relative.

GR allude to some other arguments in favour of the COMP accessibility Hypothesis like the fact that the finiteness of a CP is subcategorized for

by the higher verb. These arguments are few and don't pass the test of time well, though.

GR also speculate about the COMP Accessibility Hypothesis providing a natural way to parametrize whether a language is matching or non-matching, as well as a natural way to capture the historical change from non-matching to matching.

Is the matching requirement in matching languages absolute? Some have argued that it is not, as it appears violable in proverbs (Hirschbuehler and Rivero 1981, Grosu 1994). Then there is the debate on missing Ps, which we have been avoiding. Could that be a case of non-matching?

Instances of Case mis-matching in German are reported in Pittner (1995) and Grosu (1994) but according to van Riemsdijk (2000) may not be real. The mis-matching resolves in favour of the Case of the relative. I.e. the opposite of the Case Attraction cases discussed above. So maybe we should group the German and Classical Greek cases together and parametrize the winning Case. See Grosu 1994, who divides languages into matching, non-matching and partially matching (mismatches are permitted under certain conditions)..

Finally, the case discussed in the next section may (but then again may not) be describable as mis-matching.

IV. The Maraschino Cherry

In many IE languages, there is syncretism between the Accusative and Nominative in the Neutral.

When the FR pronoun that appears in a non-matching environment is neutral, the sentence is fine. That is, while (36), which we saw above is unacceptable, (43) is absolutely fine:

(42) The princess will marry whoever wins the race. (* in matching languages)

(43) The princess will eat what(ever) bothers her mother

In Modern Greek there is also Acc/Nom syncretism in the singular feminine and there the interesting pattern as above can be found in FRs.

This is a very strange phenomenon as it appears that the morphological form of the *wh*-word matters and not the abstract Case-feature. This is very strange for our conception of the grammar (and theories where *wh*-words move for Case seem to have no chance whatsoever). This is truly a wondrous phenomenon and its solution will have architectural consequences.

V. Since BG and GR

In the years since these two papers people have written taking sides in one of the above camps, often, of course, with refinements of the specifics. There is very interesting work done by among others: Barbara Citko (a series of papers), Ivano Caponigro (a series of papers), van Riemsdijk, Larson 1987, 1998, Bury and Neeleman, and several others. Most recently a quite different type of approach was proposed and developed in a book by Donati and Cecchetto entitled *(Re)labeling*, based on earlier work by them, as well as ideas in the work of others (see the references in Donati and Cecchetto).

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