

## Whatever

### Free Relatives

- (1) I ordered what the waiter recommended.
- (2) In restaurants, I order whatever the waiter recommends.
- (3) John read whatever Bill assigned – although I don't remember what it was, but I do know that it was long and boring.
- (4) Everyone who went to whatever movie the Avon is now showing said it was very boring.

### Selected Work on Free Relatives

- Bresnan, Joan and Jane Grimshaw (1978), 'The Syntax of Free Relatives in English', *Linguistic Inquiry*, **9**, 331-391.
- Larson, Richard (1987), "'Missing Prepositions" and the Analysis of English Free Relative Clauses', *Linguistic Inquiry*, **18**, 239-266.
- Jacobson, Pauline (1995), 'On the Quantificational Force of Free Relatives', in Emmon Bach, Eloise Jelinek, Angelika Kratzer, and Barbara Partee (eds.), *Quantification in Natural Languages*, Kluwer, Dordrecht.
- Dayal, Veneeta (1995), 'Quantification in Correlatives', in Emmon Bach, Eloise Jelinek, Angelika Kratzer, and Barbara Partee (eds.), *Quantification in Natural Languages*, Kluwer, Dordrecht.
- Grosu, Alexander and Fred Landman (1998), 'Strange Relatives of the Third Kind', *Natural Language Semantics*, **6**, 125-170.
- Iatridou, Sabine and Spyridoula Varlokosta (1998), 'Pseudoclefts Crosslinguistically', *Natural Language Semantics*, **6**, 3-28.
- Dayal, Veneeta (1997), 'Free Relatives and *Ever*: Identity and Free Choice Readings', *Semantics and Linguistic Theory*, **7**.
- Lahiri, Utpal (1998?), 'Even-Incorporated NPIs in Hindi Definites and Correlatives', in Jack Hoeksema et.al. (eds.), John Benjamins, Amsterdam. [To Appear. Book Title?]

### Free Relatives as Definite Descriptions (Jacobson 1995)

Jacobson argues that free relatives, even those with *-ever*, are definite descriptions and not universal quantifiers.

### Problems with *Whatever*

Noted by Jacobson:

- (5) \*Whatever John ate was an apple.

### Iatridou & Varlokosta (1998)

"In the speaker's ignorance reading, *whatever* quantifies over epistemic worlds" (p. 14)

Dayal's Idea (1997)

Here is her way of presenting the proposal:

<INSERT EXCERPT FROM DAYAL'S PAPER>

Let's fix this up:

$$(6) \quad \text{Dox}(w)(s) = \left\{ w' : w' \text{ is compatible with everything that } s \text{ believes in } w \right\}$$

$$= \left\{ w' : \Box p \left( s \text{ believes } p \text{ in } w \Box p \text{ is true in } w' \right) \right\}$$

Dayal's formulation has the consequence that the *whatever*-claim is vacuously true if the speaker's belief worlds do not vary in the reference of the free relative.

$$(7) \quad \llbracket \text{whatever} \rrbracket (w) (P_{\text{Iset}}) (Q_{\text{Iset}})$$

presupposes:  $\Box w', w'' \Box \text{Dox}(w)(s) : \Box x. P(w')(x) \neq \Box x. P(w'')(x)$

asserts:  $\Box w' \Box \text{Dox}(w)(s) : Q(w') (\Box x. P(w')(x))$

*Whatever*-statements presuppose (see *italics*) then that the speaker cannot identify the referent of the free relative and assert (see **boldface**) that the referent – whatever it is – has the matrix property in all of the speaker's epistemic/doxastic alternatives.

This doesn't quite correspond to the spirit of Dayal's idea.

Differences: (i) worlds quantify over can differ in more than the referent of the FR, (ii) lack of knowledge is now a presupposition (in Dayal's proposal, we got vacuous truth).

Commonalties: (i) lack of knowledge ("speaker's ignorance"), (ii) uniqueness presupposition projected into speaker's epistemic alternatives.

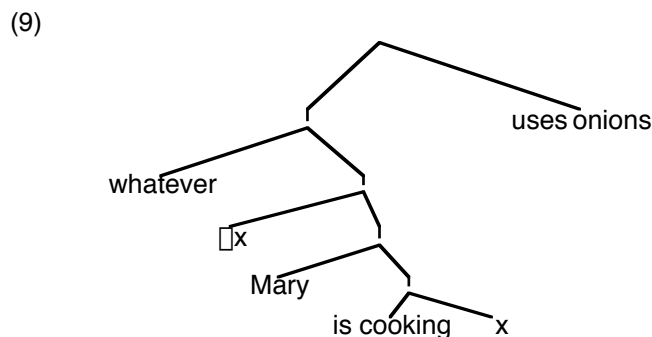
A slightly different analysis (where the assertion itself is not modalized):

$$(8) \quad \llbracket \text{whatever} \rrbracket (w) (P_{\text{Iset}}) (Q_{\text{Iset}})$$

presupposes:  $\Box w', w'' \Box \text{Dox}(w)(s) : \Box x. P(w')(x) \neq \Box x. P(w'')(x)$

asserts:  $Q(w) (\Box x. P(w)(x))$

Now, since *whatever* doesn't quantify over the evaluation world of the matrix sentence, we don't need to give it a quantifier type anymore. We can treat the free relative as a referring expression.



$$(10) \quad \llbracket \text{whatever} \rrbracket^w = \Box \emptyset_{\text{Iset}} : \Box w', w'' \Box \text{Dox}(w)(s) : \Box x. \emptyset(w')(x) \neq \Box x. \emptyset(w'')(x). \Box x. \emptyset(w)(x)$$

- (11)  $\llbracket \text{whatever } x. \text{ Mary is cooking } x \rrbracket^w = \llbracket \text{whatever} \rrbracket^w \left( \lambda w'. \llbracket x. \text{ Mary is cooking } x \rrbracket^w \right)$   
is defined only if  $\lambda w', w' \sqsubseteq \text{Dox}(w)(s): \llbracket x. \text{ Mary is cooking } x \rrbracket^w \neq \llbracket x. \text{ Mary is cooking } x \rrbracket^{w'}$   
If defined,  $\llbracket \text{whatever } x. \text{ Mary is cooking } x \rrbracket^w = \llbracket x. \text{ Mary is cooking } x \rrbracket^w$
- (12) Whatever Mary is cooking uses onions.
- (13) \*Whatever Mary is cooking, namely ratatouille, uses onions.
- (14) Whatever Mary cooks uses onions.
- (15) What(\*ever) Mary bought was *Barriers*.
- (16) What(?ever) Mary bought wasn't *Barriers*.

### Embedded Uses

- (17) John wanted to eat whatever (it was that) Mary was cooking.

#### speaker's ignorance

Last night, Mary was cooking John's favorite dish. The whole day, John kept telling me that he was looking forward to eating whatever it was that Mary was cooking.

#### subject's ignorance

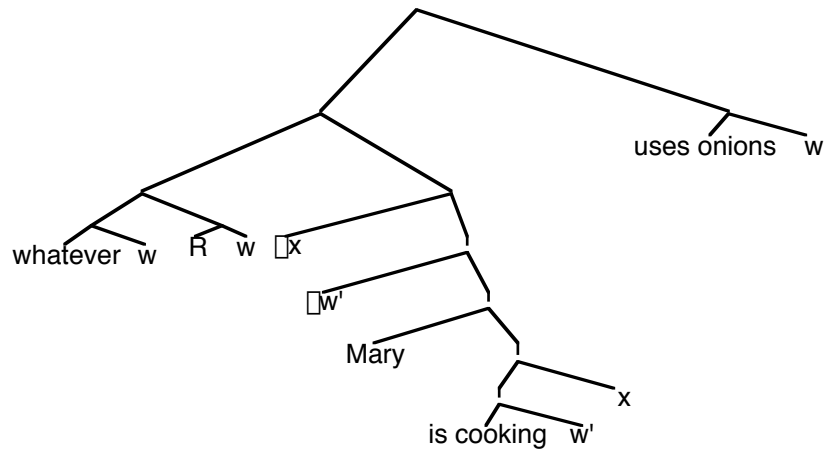
Last night, Mary was cooking lasagna. When John came home, the smell coming from the kitchen was wonderful. He couldn't wait to eat whatever it was that Mary was cooking.

Difference in logical scope of free relative?

Or effect of in situ freedom of world-indexing?

Idea: supply *whatever* with an argument of the type of a set of worlds (consisting of a free variable over accessibility functions and a world variable)

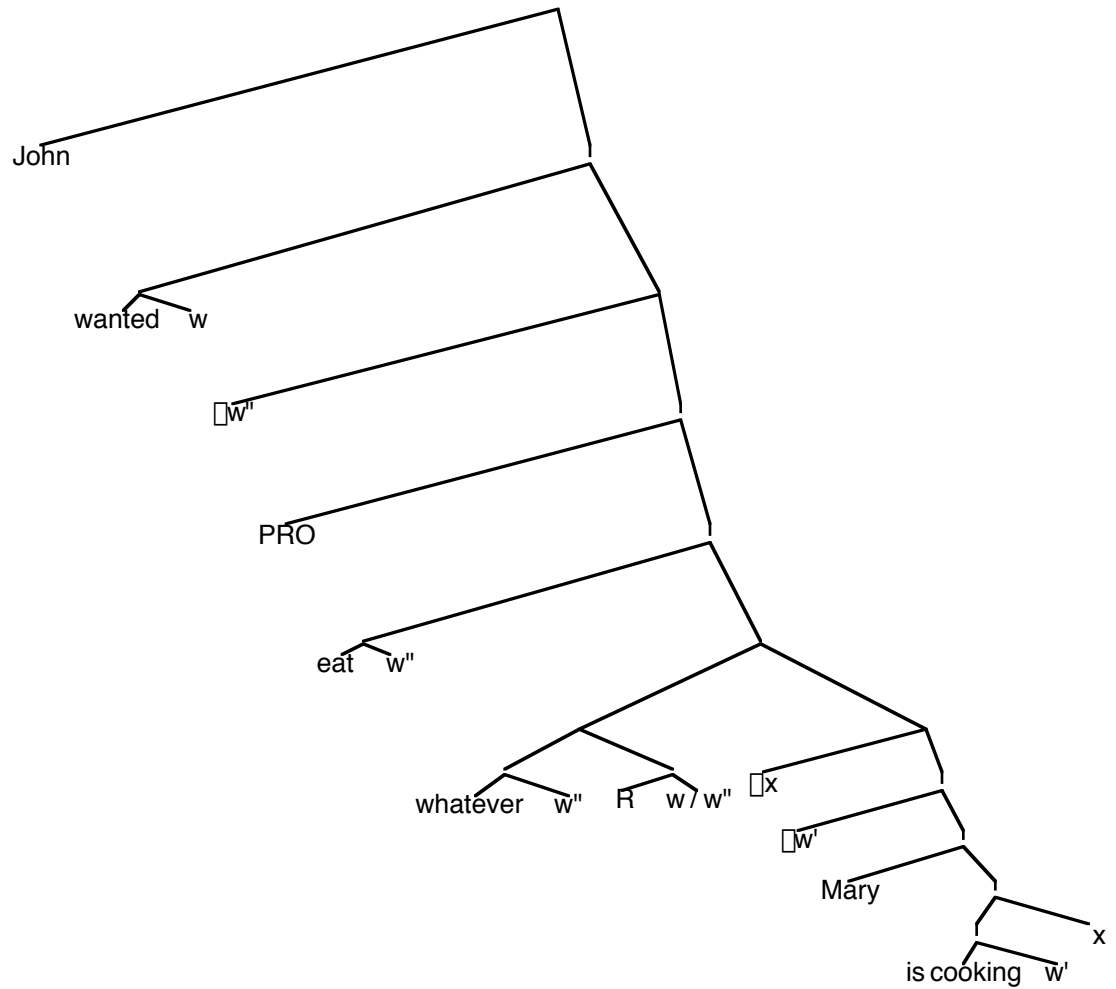
(18)



Salient value for R:  $\lambda w. \text{Dox}(w)(s)$

(19)  $\llbracket \text{whatever} \rrbracket = \lambda w. \lambda p. \lambda \phi_{|\text{est}|}: \lambda w', w'' \lambda p. \lambda x. \phi(x)(w') \neq \lambda x. \phi(x)(w''). \lambda x. \phi(x)(w)$

(20)



(21) John planned to indict whoever (it was that) had approved the contract.

(22) People mostly/usually honor who(ever) is elected.

(23) Dayal's analysis:

$MOST_o [C(o)] \square i\text{-alt} \square f(o)(s) \left[ \text{honor}(i) \left( \lambda x [\text{be-elected}(i)(x)] \right) \right] (\text{people})$

"Here, *mostly* quantifies over contextually relevant occasions, that is, those maximal occasions with an elected officer in them. It asserts that in most such occasions the elected official is honored and, further, that this is not contingent on the identity of the individual concerned."

(24) My proposal:

*whoever* gets the domain C as the set of indices with respect to which there is variety as to who gets elected.

This may be enough to suggest that people honor who gets elected because they got elected.

### More

Readings other than speaker's ignorance even for unembedded uses:

(25) John grabbed whatever (tool) was handy and banged the nail back in its place.

No ignorance (speaker's or subject's) needs to be suggested. John simply didn't care what it was that he grabbed as long as it was handy (and could do the job).

(26) *whatever* P = the P (and it is not known/it doesn't matter what the P is)

(27) Resolution for R: the set of worlds where John's desires are satisfied

John's desires do not force a particular tool to be handy

## **Indefinites with Similar Added Ingredients**

There appear to be indefinites across languages which are marked for a lack of speaker's knowledge. Schematically (UI = unidentified):

(28) UI-SOME student came:

There is a student who came – but I don't know who it was/which student came

A lot of what I know about these constructions comes from

→ Haspelmath, Martin (1997), *Indefinite Pronouns*, Oxford University Press, Oxford.

See especially §3.2.4 (Knowledge of the speaker) pp. 45-48 and §6.2 (Source Constructions for Indefiniteness Markers) pp. 130-141.

Note: because of the apparent sluicing meaning added, the UI-indefinite has to be "specific".

(29) Mary wants to marry a Norwegian student – but I don't know who it is.

English *some*

Here's what Strawson (in his book *Subject and Predicate in Logic and Grammar*, 1974, Methuen, pp. 110/111) had to say about the difference between *a* and *some*:

"Consider the following cases:

- (30) A policeman has been shot
- (31) Some  $\left\{ \begin{array}{c} \text{general} \\ \text{cabinet minister} \\ \text{V.I.P.} \end{array} \right\}$  has been shot
- (32) I've been stung by some insect
- (33) I've been stung by a wasp
- (34) I've been stung by some wasp
- (35) She has just been delivered of a boy
- (36) She has just been delivered of some boy

Now what is the difference between the cases in which we use *a* and the cases in which we use *some*? My suggestion is that the choice of *some* rather than *a* embodies what might be called an acknowledgment or recognition of the fact that the identification supplied, though perhaps the best the speaker can do, might be regarded as inadequate to the circumstances of the case; and that the kind of identification which the choice of *some* rather than *a* indicates or suggests inability to provide (though perhaps sometimes accompanied by indifference to or unconcern about) may be either further kind-identification or individual-identification. If this is on the right lines, it would explain some facts about my examples. Thus there is more likely in general to be an individual identification question asked in the case of a cabinet minister (general, V.I.P.) than in the case of a policeman; and more point, therefore, in acknowledging the question, as it were, while disclaiming the ability to answer it. In my next group of three examples, the most satisfactory description of an unsatisfactory situation is given by *I've been stung by a wasp*. That gives all the identification we need of what stung me. *I've been stung by some insect* acknowledges that the kind-identification given falls short of what we generally regard as desirable in such cases (from the point of view, for example, of treatment), even though it may be spoken in a spirit of manly indifference to such concern. *I've been stung by some wasp*, on the other hand, with its suggestion of a possible individual-identification of the wasp in question seems absurd. Even more absurd is the suggestion of a possible individual-identification in the case of *She has just been delivered of some boy*. It is not totally absurd, any more than the question, *Who is the boy she has just been delivered of?* is totally absurd; but it would require an elaborate setting to be given any natural use at all."

Haspelmath cites the following examples from Warfel, Sam L. (1972) "*Some, Reference, and Description*", in J.H. Battle and John Schweitzer (eds.), *Mid-America Linguistics Conference Papers*, Stillwater: Oklahoma State University, pp. 41-49:

- (37) John is looking for some book on reserve (\*and I know which one).
- (38) Hortense is watching for some sailor who's due in port today. (\*He is a friend of mine).



- (39) Ralph is worried because he lost some letter he was supposed to mail (\*but I have it right here).

NOTES: (i) The items *something*, *someone*, *somebody*, etc. are not subject to this unidentification condition. (ii) While both *some* and *a certain* seem to be pretty reliable signals for some kind of wide-scope, they differ in signals about speaker's knowledge.

### German *irgend*-indefinites

Items like *irgend jemand* (compared to the simpler indefinite *jemand*) have NPI-uses, but they are also OK in non-NPI environments. In such contexts, they seem to be unidentification indefinites. Examples from Haspelmath:

- (40) a. Jemand hat angerufen. (- Wer war es?)  
Someone has called. (- Who was it?)  
b. Irgend jemand hat angerufen. (\*-Wer war es?)  
UI-someone has called. (\*-Wer war es?)

### More References

Misha Becker (1998) "The *Some* Indefinites", to appear in *Proceedings of CSSP 2*, ed. by Francis Corblin et.al.

D.N.S. Bhat (1981) "Physical Identification in Kannada", *Studies in the Linguistic Sciences* 11(2): 1-8.

### Dunno-Indefinites

Let's look closer at how these indefinites might work. Haspelmath suggests that at least some of them develop diachronically from more explicit structures.

- (41) (She told him something). I don't know what [it was].  
(42) She told him I don't know what.  
(43) She told him **UI-indefinite**.  
(44) German: *wer weiß wer*  
French: *je ne sais quel*  
French: *Dieux sait qui*  
English: *God knows who*  
(45) a. Susanne is thinking about something. I don't know what.  
b. She wants to marry an Ainu speaker. I don't know whom.  
(46) a. Take some apple. \*I don't know which one.  
b. Did you see anybody? \*I don't know whom.  
c. You can take any apple. \*I don't know which one.

Are these indefinites always speaker-oriented or can the lack of identifying knowledge be attributed to someone else?

Analysis Attempt:

$$(47) \quad \llbracket \text{UI-some} \rrbracket = \lambda w. \lambda p. \lambda \varphi_{[e, st]}. \lambda \langle x \rangle_{[e, st]}:$$

$$\lambda w', w'' \lambda p: \{x: \varphi(x)(w') \& \langle x \rangle(w')\} \neq \{x: \varphi(x)(w'') \& \langle x \rangle(w'')\}.$$

$$\{x: \varphi(x)(w) \& \langle x \rangle(w)\} \neq \emptyset$$

Do we need a presupposition that there is a unique referent?

(48) John thinks that some student got arrested. But I don't know who.

- ? I don't know who the student who got arrested is.
- ? I don't know who the student who John thinks got arrested is.

No Matter-Indefinites

Another rich class of value-added indefinites.

(49) Pick an apple – whichever you want/it doesn't matter which/any kind is OK

(50) If anyone – anyone whatsoever/I don't care who/it doesn't matter who – calls, ...

What does *it doesn't matter who calls* mean?

(51) Among the domain D of worlds under consideration, all possible answers to the question *who calls* are instantiated.

$$\lambda p \lambda \llbracket \text{who calls} \rrbracket: D \lambda p \neq \emptyset$$

As far as D is concerned, anyone might call.

(52) If someone – it doesn't matter who – calls, my phone will self-combust.

ignoring the parenthesis:

$$\lambda w' \lambda D(w): \lambda x: \text{calls}(x)(w) \lambda \text{ my phone self-combusts}(w')$$

contribution of the parenthesis:

$$\lambda x: \text{Relevant}(x) \lambda \lambda w' \lambda D(w): \text{calls}(x)(w')$$

Effect: emphasis that domain of possible callers is quite wide.