Remarks on Superiority Effects in English*

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0. Introduction
This article is devoted to the investigation into a number of principled explanations for superiority effects in English. Among others, I will argue for Nakamura's hypothesis based on Binding Principle (C). This article sheds light on several phenomena which demand further exploration.

1. Two Major Problems
There are two major problems which any principled account of superiority effects must overcome. The first problem is so-called "pure superiority effects" represented below:

(1) a. I wonder who to persuade to read what books.
b. I wonder what books to persuade who to read.

This contrast illustrates that superiority effects cannot be accounted for by ECP.

The second problem is concerned with the fact that superiority effects disappear in a certain circumstance, as the following examples show:

(2) a. Mary asked which book which man read.
b. Mary asked which book who read.
(Pesetsky 1987)

(3) a. What did whose/mother buy?
b. What did what company buy?
(Nakamura 1991)

(4) a. What did people from where buy?
b. Who did pictures of who please?
(Hornstein & Weinberg 1987)
(Fiengo, et al. 1988)

Any principle accommodating superiority effects must solve these two major problems at the same time.

2. Movement Analyses for Wh-in-situ
In this section, I will investigate the studies in Pesetsky (1987) and Watanabe (1991) in detail, focusing on the problems presented in section 1.

2. 1. Pesetsky (1987)
Pesetsky proposes that superiority effects result from violations of his Path Containment Condition (henceforth PCC) defined as follows:

(5) Path Containment Condition (PCC)
If two paths overlap, one must contain the other.
(Pesetsky 1982)

Let us first consider the case of pure superiority effects. Based on the traditional assumption that wh-in-situ should be raised for scopal reason, under the spirit of May (1985), the relevant parts of the LF representations of (1) will be illustrated as follows:

(6) a. [\text{[\text{what books}_2 \text{[\text{who}_1 \ldots [\text{v}_1 \text{V}_1 \text{to read }_1]]}]]}
b. [\text{[\text{who}_2 \text{[\text{what books}_1 \ldots [\text{v}_1 \text{V}_1 \text{to read }_1]]}]]}

These LF-representations tell us that the PCC correctly deals with pure superiority effects, since in (6a), the path for \( t_2 \) contains the path for \( t_1 \), while in (6b) two paths intersect each other.

Before going on to consider how the absence of superiority effects will be accounted for, a set of assumptions he made must be noted. He assumes that \textit{wh}-phrases should be classified into two parts, namely D-linked \textit{wh}-phrases (\textit{which}-etc) and non-D-linked one (\textit{what company}, \textit{who}, \textit{how many}-etc), on the basis of their specificity in a discourse. He also assumes that the semantic distinction of \textit{wh}-phrases affects their syntactic characters as informally stated below:

(7) Non-D-linked \textit{wh}-phrases are quantifiers, whereas D-linked \textit{wh}-phrases are not.
According to this assumption, a non-D-linked \textit{wh}-phrase must be raised into an A'-position by a QR-like operation in order to take its scope at LF, while a D-linked \textit{wh}-phrase can remain in situ and its interpretation will be assigned by unselective binding without any movements.\footnote{1}

With these assumptions in mind, let us examine the absence of superiority effects. Consider the following contrast:

(8) a. Mary asked which book \textit{who} read it
   b. Mary asked which book \textit{which man} read it

In (8a), since non-D-linked \textit{wh}-in-situ must be raised at LF, crossing the path for \textit{which book}, the expected superiority effect will arise. On the contrary, in (8b), since \textit{wh}-in-situ is D-linked, its interpretation is assigned by being bound unselectively as proposed in Baker (1970) as indicated below:

(9) [\textit{which book} \textit{which man}]

Consequently, the expected superiority effect will disappear.

2. Watanabe (1991)

Now let us discuss those problematic cases in detail in the light of Watanabe's hypothesis. He proposes that superiority \textit{effects} will arise in a context where Relation Preservation Principle (henceforth RPP) defined below fails to be satisfied.

\textbf{(10) Relation Preservation Principle (RPP)}

A \textit{wh}-relation established at a certain point in the derivation must be maintained throughout.

The \textit{wh}-relation refers to an asymmetric seg(ment)-command relation between two \textit{wh}-phrases defined as follows:

\textbf{(11) a seg-commands \beta iff \alpha does not dominate \beta 
   and every segment that dominates \alpha dominates \beta where \alpha and \beta are categories.}

To put it briefly, the definition (11) is equivalent to saying that if \textit{wh}-in-situ is adjoined to a \textit{wh}-phrase in CP-spec position at LF, the latter asymmetrically seg-commands the former at this level, but not vice versa.

He assumes that the grammar checks the \textit{wh}-relation of two \textit{wh}-phrases at S-structure and LF in different domains. For instance, in the following S-structure representation,

\textbf{(12) What} did [\textit{if you give} \textit{t} to \textit{who}]?

the grammar checks an IP-internal \textit{wh}-relation of \textit{t} and \textit{who}, while at LF, it checks a CP-spec-internal \textit{wh}-relation of \textit{what} and \textit{who} undergoing an LF-movement.

Now, bearing these assumptions in mind, let us confine our attention to the account of pure superiority effects. The relevant S-structure representations and the relevant parts of their LF-structures are illustrated as follows:

\textbf{(13) a. I wonder who \textit{to persuade} \textit{t} to read what books}.
   b. I wonder what books \textit{to persuade} \textit{who} to read \textit{t}.

\textbf{(14) a. CP b. CP}

\textbf{DP} \textbf{CP}

\textbf{C'-DP, }\textbf{C'-DP, DP, DP, DP, DP, who books' books' who}

In the case of (13a), since \textit{t} asymmetrically seg-commands \textit{what books} at S-structure, and \textit{who} asymmetrically seg-commands \textit{what books} in its LF-representation (14a), \textit{wh}-relations are therefore maintained throughout the derivation, satisfying the RPP. On the contrary, in the case of (13b), since \textit{t} is asymmetrically seg-commanded by \textit{who} at S-structure, and \textit{what books} asymmetrically seg-commands \textit{who} in its LF-representation (14b), \textit{wh}-relations are therefore changed through the derivation, consequently the RPP is violated.

Let us further consider the account of the absence of superiority effects. Consider the following S-structure representation (15) and LF-representation (16):

\textbf{(15) Who} \textit{did [ip pictures of who] please \textit{t}?}
\textbf{(16) [cp [dp pictures of who] [dp who]] did [ip [pictures of \textit{t}] please \textit{t}].}

In (15), since \textit{t} and \textit{who} are not in a seg-command
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relation each other, mediated by the interruption of a subject NP boundary, the wh-relation at S-structure remains unspecified. In (16), who, asymmetrically seg-commands who2 and the wh-relation is specified at this level for the first time. Notice that this suffices to meet the RPP. As far as the maintenance of a wh-relation is concerned, it is vacuously unchanged, since it is not established until who2 undergoes an LF-movement. Thus, his analysis correctly deals with this case.

3. Against Movement Analyses for Wh-in-situ

As far as the observations in the last section are concerned, the hypotheses of Pesetsky's and Watanabe's seem to correctly account for problematic cases of superiority effects. More serious consideration, however, shows that these ideas are quite unsatisfactory in terms of at least two objections.

In the first place, neither of their hypotheses can deal with the absence of superiority effects repeated below in a unified fashion:

(17) a. What2, did people from where2 buy t2?
   b. Who2, did pictures of who2 please t2?
(18) a. What2, did whose2/which2 mother buy t2?
   b. *What2, did what2 company buy t2?

Apart from the examples in (18), Pesetsky's analysis will exclude the examples in (17) since violations of the PCC occur, induced by LF-movements of wh-in-situ. On the other hand, the contrast in (18) leads to a difficulty in Watanabe's hypothesis. Remind that always when a certain wh-relation is unspecified at S-structure, the wh-relation at LF suffices to meet the RPP. However sophisticated the DP-internal structures are, neither examples will violate the RPP since no wh-relation is established at S-structure.

In the second place, their hypotheses are faced with serious facts that no constraint on movements holds for wh-in-situ. Let us look at the following paradigms:

(19) Complex NP Constraint
   a. *Which book did John hear the rumor that you had read t?
   b. I wonder who heard the claim that John had seen what.
(20) Adjunct Condition
   a. *To whom did you leave without speaking t?
   b. Who cried after John hit who?
(21) Subject Condition
   a. *the man who pictures of t are on the table
   b. Who thinks that pictures of who would please John?
(22) Wh-island Condition
   a. *What did Bill wonder when John ate t?
   b. Who remembers where Bill saw what?
(23) Specificity Effect
   a. *Who did you buy John's pictures of t?
   b. Who saw John's pictures of whom?
(24) Left Branch Condition
   a. *Whose did [t mother] buy the book?
   b. What did whose' mother buy?

They must answer to the question why a syntactic movement and an LF-movement show different behavior toward these constraints on movements.3) One might argue for a stipulation restricting the application of Subjacency to syntactic derivations as pointed out in Huang (1982). Nevertheless, the question why only LF-movements can escape from Subjacency violations would remain unsettled.

Admitting that this stipulation is correct, the following contrasts cannot be explained:

(25) That-trace Effect
   a. *Who do you think that t left?
   b. Who thinks that who left?
(26) a. *Which student do you wonder how t would solve the problem?
   b. Who wonders how who would solve the problem?

Given a natural assumption that all traces left by movements are subject to ECP, the question how wh-in-situ escapes from ECP violations would be left unclear.

To sum up, we have observed that movement analyses for wh-in-situ cannot deal with the facts about the absence of superiority effects in a unified
fashion, nor they cannot capture the fact that \textit{wh-in-situ} is never subject to any constraint on movements.

We therefore conclude, judging from these observations, that \textit{LF}-movement does not hold for \textit{wh-in-situ} and that superiority effects should be accounted for without relevance to \textit{LF}-movements.

4. A Non-movement Analysis for \textit{Wh-in-situ}

In this section, I will argue for Nakamura's hypothesis, which accounts for superiority effects without relevance to \textit{LF}-movements of \textit{wh-in-situ}.

4.1. Nakamura (1991) : Binding Principle (C)

Before turning to the exploration of superiority effects, it is helpful to clarify a set of assumptions he made. He assumes that the interpretation of \textit{wh-in-situ} should be determined by an absorption operation informally stated as follows:

\begin{equation}
\text{(27) Absorption:} \\
\text{For X and Y, where X and Y stand for a wh-element in a CP-spec position and \textit{wh-in-situ} respectively, the index of X is identical with that of Y at S-structure.}
\end{equation}

He also assumes that indices assigned to a \textit{wh}-phrase by the absorption operation, indicated by slash indexing following Stowell (1987), should be automatically transmitted to its trace.

According to these assumptions, the mechanism of assigning the scope of \textit{wh-in-situ} will be illustrated as follows:

\begin{equation}
\text{(28) \text{[cpWho$_{1/z}$ [\textit{ifr}$_{1/z}$ saw what$_{2}$]]} ?}
\end{equation}

Remind that a trace left by a \textit{wh}-movement, a variable, must meet Binding Principle (C) (henceforth BP (C)) defined as follows:

\begin{equation}
\text{(29) Binding Principle (C) } \\
\text{An R-expression must be free in the domain of the head of its chain. (Chomsky 1986a)}
\end{equation}

Based on the assumption that the BP (C) holds at S-structure, the example (28) satisfies it since a variable is A-free in the domain of the operator which properly A''-binds it.

Let us now return to the examination of pure superiority effects, bearing these assumptions in mind. Consider:

\begin{equation}
\text{(30) a. I wonder \text{[cpwho$_{1/z}$ [\textit{ifr}$_{1/z}$ to persuade $t_{1/z}$ [\textit{ifr}$_{1/z}$ to read what$_{2}$]]] ?}
\end{equation}

\begin{equation}
\text{b. *I wonder \text{[cpwhat books$_{1/z}$ [\textit{ifr}$_{1/z}$ to persuade who$_{2}$ [\textit{ifr}$_{1/z}$ to read $t_{1/z}$]]] ?}
\end{equation}

In (30a), since a variable trace is free in the domain of its operator, the BP (C) will be satisfied. In (42b), however, since a variable trace is A-bound by who$_{2}$ in the domain of its operator, the BP (C) will be violated.

Turning to the case of the absence of superiority effects it must be noted that Nakamura assumes highly sophisticated structures for \textit{wh}-phrases as illustrated below:

\begin{equation}
\text{(31) a. \text{[DP who$_{1/z}$]$_{2}$ did \text{[DP whose/which]$_{2}$ mother] buy $t_{1/z}$]}}
\end{equation}

\begin{equation}
\text{b. \text{[DP what]$_{2}$ company]$_{2}$ did \text{[DP whose/which]$_{2}$ mother] buy $t_{1/z}$]}
\end{equation}

Notice that the c-command domain of whose/which is distinct from that of what; the former is limited within a category DP since whose/which occupies the specifier position of DP, while the latter is similar to the c-command domain of a category DP since it is a maximal projection headed by what, whose features percolate up to it.

Under this assumption, the BP (C) can correctly account for the absence of superiority effects in a unified fashion as indicated below:

\begin{equation}
\text{(32) a. What$_{1/z}$ did \text{[DP whose/which]$_{1/z}$ mother] buy $t_{1/z}$} \\
\text{b. *What$_{1/z}$ did \text{[DP what]$_{1/z}$ company]$_{2}$ buy $t_{1/z}$} \\
\text{(33) Who$_{1/z}$ did \text{[ifr NP pictures of who$_{2}$] [\textit{ifr $t_{1/z}$}] please $t_{1/z}$] ?}
\end{equation}

In (32a), a variable trace is free since whose/which neither c-commands nor binds it, hence a satisfaction of the BP (C). On the contrary, in (32b), a variable trace is A-bound since a category DP, bearing the same index as what has, c-commands and binds it, hence a violation of the BP (C). In (33),

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a variable trace is free, since who is far from c-commanding it because a subject NP boundary intervenes between them.

We may therefore conclude that Nakamura's hypothesis is highly available for the account of superiority effects in a principled way.

4. 2. A problem to Nakamura's Analysis

A serious problem will however arise as to the treatment of the following contrast:

(34) a. 'What books did you persuade who to give to Bill?
   b. ?What books did you persuade who to give to whom?

Comparing the example in (34a) and (34b), an additional wh-phrase to the bottom of a sentence may save a superiority violation. As we can observe in the following S-structure representations, this fact cannot be accounted for by Nakamura's analysis:

(35) a. [cp What books did [ip you persuade who to give t to Bill]]
   b. [cp What books did [ip you persuade who to give t to whom]]

In (35b), a variable trace is still A-bound by who, even if the index of whom is also absorbed by the matrix wh-phrase. Consequently, his analysis would exclude (35b) in the same manner as in (35a).

In the next section, we will explore this kind of phenomena, which is called "additional wh-effects" in Saito (1992), in more detail.

5. Additional WH Effects

5. 1. Data

The following bunch of data provides a certain number of characteristics of so-called "Additional WH" ameliorating superiority violations, which will be classified at least into four types in terms of its position in a sentence:

(36) Type-A
   a. *What books did you persuade who to give t to whom?
   b. ?What books did you persuade who to give t to whom?

(37) Type-B
   a. *Which information did people from the company persuade whom to give t to me?
   b. ?Which information did people from which company persuade whom to give t to me?

(38) Type-C
   a. *Which information did John persuade whom to give t after meeting the president?
   b. ?Which information did John persuade whom to give t after meeting which president?

(39) Type-D
   a. *Bill wonders what you told who to read t.
   b. Who2 t2 wonders what you told who to read t?

According to these data, it is obvious that additional wh-phrases have a variety of syntactic positions in which they can occur. Among others, the examples in (39) demand a little attention, since the additional wh-phrase in this case is not wh-in-situ but a wh-phrase moved syntactically. The occurrence of additional wh-phrases, however, seems to be restricted within a certain kind of circumstances as the following contrast shows:

(40) a. *What books did you tell John to persuade whom to give t to me?
   b. What books did you tell what man to persuade whom to give t to me?

These observations, substantiates the following descriptive statement on the well-formedness of a multiple question presented in Watanabe (1991): 6)

(41) A multiple question is well-formed in English only if at S-structure there is a wh-phrase that does not c-command the trace of a wh-phrase moved into the target Spec of CP.

In what follows, we will make further consideration into the question how these full-arranged data effect on the proposed analyses.

5. 2. Nakamura's Analysis Revisited
Putting aside the examples of Type-A for the time being, let us first consider the examples of type -D for convenience. The relevant S-structure representations of (39a) and (39b) after absorption has taken place are shown in (42) and (43) respectively:

(42) *Bill wonders what, you told whom, to read lt2
(43) Whom2, lt2 wonders what, you told whom, to read lt2

The representation (42) will be ungrammatical since a variable is A-bound, violating the BP (C), as expected. In (43), since a wh-element in the matrix CP-spec position absorbs the index of wh-in-situ, the offending trace will be t23 left in a subject position, which is A-free and satisfies the BP (C). If absorption has taken place between what, and whom, the S-structure representation will be as follows:

(44) *Whom2, lt2 wonders what, you told whom, to read lt2

In this representation, lt23 is A-bound by whom, hence a violation of the BP (C). What we have to note here is that the expected grammatical contrast between (43) and (44) is correctly reflected in the scopal fact that wh-in-situ has only the matrix reading as pointed out in Lasnik and Saito (1992).

As is clear from the following representation, we have to admit that the examples of Type-B and Type-C, in addition to those of Type-A, are beyond the domain of Nakamura’s accounts, casting a problem to it:

(45) a. *What books, did you persuade whom, to give lt2 to Bill
b. *What books, did you persuade whom, to give lt2 to whom?
(46) a. *Which information, did [people from the company] persuade whom, to give lt2 to me?
b. *Which information, did [people from which company] persuade whom, to give lt2 to me?
(47) a. *Which information, did John persuade whom, to give lt2 [after meeting the president]?
b. *Which information, did John persuade whom, to give lt2 [after meeting which, president]?

In each (b) example, a variable trace is still A-bound by wh-in-situ c-commanding it, regardless of the existence of additional wh-in-situ, consequently the BP (C) is violated contrary to the fact.

5.3 Pesetsky’s Analysis Revisited

Now let us consider these matters in the light of Pesetsky’s analysis. Look at the following LF-representation of (39b):

(48) [wh03[wh02[lt2 wonders what, you told lt2 to read lt2]]]

At first glance, in the representation above, since the additional who, who2 provides another path contained by the path for lt2, the PCC is satisfied. We must, however, note here that his analysis implies that an incorrect path union should be neglected if at least one correct path union can be obtained. Moreover, it is worth noting that the expected interpretation of wh-in-situ only results from the correct path union made out of the path for lt2 and the path for lt2.

Let us next consider the following LF-representation of (36b):

(49) [cpwh3 [cpwh2 [cpwh1 [tp'et' [ip'et's]]]]]

This representation might satisfy the PCC only if the incorrect path union made out of the path for lt2 and the path for lt2 is neglected, covered with the path for lt2.

There is, however, good evidence to show that this approach is untenable. Consider the following dialogue:

(50) Q: What books did you persuade whom to give to which girl?
A: I persuaded John to give Othello to Mary, Tom to give Macbeth to Lisa, and Jim to
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give Hamlet to Rosa.

If the stipulation that an improper path union does not enter the interpretation of \(\text{wh}-\text{in-situ}\) is correct, the question why the scope of \(\text{wh}_2\) and \(\text{wh}_3\) varies with the value of \(\text{wh}_4\) will remain unclear. This scopal fact casts a doubt on his analysis.

More serious problem will arise concerning to the examples of Type-B and Type-C. In both cases no correct path union will be obtained. Consider the following LF-representations of (37b) and (38b):

\[(51) \quad \begin{array}{l}
\text{wh}_3 \quad \text{wh}_2 \quad \text{wh}_1 \quad \text{t}_1 \\
\text{wh}_3 \quad \text{t}_2 \\
\text{wh}_3 \quad \text{t}_3 \\
\end{array}
\]

\[(52) \quad \begin{array}{l}
\text{wh}_3 \quad \text{wh}_2 \quad \text{wh}_1 \quad \text{t}_1 \\
\text{wh}_3 \quad \text{t}_2 \\
\text{wh}_3 \quad \text{t}_3 \\
\end{array}
\]

In (51) the path for \(\text{t}_1\) will not cover the incorrect path union out of the path for \(\text{t}_1\) and the one for \(\text{t}_2\) since the position of \(\text{t}_3\) precedes that of \(\text{t}_1\). On the other hand, in (52), the path for \(\text{t}_1\) will be never contained by the path for \(\text{t}_3\) even if \(\text{t}_3\) follows \(\text{t}_1\) in a sequence.

The obvious conclusion we arrived at is, therefore, that Pesetsky's hypothesis can deal with none of the facts concerning additional \(\text{wh}\) effects.

5.4. Watanabe's Analysis Revisited

Watanabe encounters the same kind of criticism as observed before. Consider the examples of Type-D and Type-A:

\[(53) \quad \text{Who}_2 \quad \text{t}_3 \quad \text{wonders} \quad \text{what}_4 \quad \text{you told} \quad \text{who}_3 \quad \text{to read} \quad \text{t}_1\]

\[(54) \quad \begin{array}{l}
\text{V'} \quad \text{CP} \\
\text{DP}_1 \quad \text{C'} \\
\text{DP}_2 \quad \text{who} \\
\text{DP}_3 \quad \text{what} \\
\end{array}
\]

\[(55) \quad \begin{array}{l}
\text{What books}_1 \quad \text{did you persuade} \quad \text{who}_2 \quad \text{to give} \quad \text{t}_1 \quad \text{to whom}_3 \\
\text{Who}_2 \quad \text{who} \\
\end{array}
\]

Here, we must not forget that he stipulates that \(\text{what books}_1\) and \(\text{who}_2\) in (55) are not in a \(\text{wh}\)-relation\(^7\) and are immune from an RPP violation in the LF-representation in (56). If the correct scope of \(\text{wh}-\text{in-situ}\) in (53) results from the only possible LF-representation (54b), the question how the matrix interpretation is assigned to \(\text{who}_2\) in (55), to which no \(\text{wh}\)-relation is permissible, will remain unsettled:

The examples of Type-B and Type-C are also problematic to his analysis. Consider:

\[(57) \quad \text{Which information}_1 \quad \text{did [in people from which company] persuade whom}_2 \quad \text{to give} \quad \text{t}_1 \quad \text{to me}\]

\[(58) \quad \text{Which information}_1 \quad \text{did John persuade whom}_2 \quad \text{[in to give} \quad \text{t}_1 \quad \text{after meeting which president]})\]

In order for the \(\text{wh}\)-relation between \(\text{wh}_1\) and \(\text{wh}_2\) to be established at LF, the LF-movement of \(\text{wh}_3\) must be exempted from Subjacency, a null hypothesis.

To conclude this section, although we have to admit that additional \(\text{wh}\) effects are problematic to Nakamura's analysis, they also cast a serious problem to Pesetsky's and Watanabe's analysis. Thus these problematic phenomena are no longer available for counter-arguments against Nakamura's hypothesis.

6. Conclusion

In this article, I argued for Nakamura's hypothesis, against Pesetsky's and Watanabe's, as one of the most available candidates for dealing with superiority effects. Moreover, I suggested that no LF-movement applies to \(\text{wh}-\text{in-situ}\) even for scopal reason. Finally, I pointed out that any principle accommodating superiority effects must overcome additional \(\text{wh}\) effects saving superiority violations. This problem is left open for future research.
Notes

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1) For further details of Unselective Binding, see Heim (1982), Reinhart (1987), Nishiguchi (1990), Diesing (1992), among others.

2) The notion “domination” is defined below following May (1985).

(i) α is dominated by β only if it is dominated by every segment of β.

The reader must note that self-domination is prohibited.


4) An apparent objection (i) can be avoided if we assume the structure (ii) for the NP:

(i) *[I need to know whom [wahow many people] voted for t]
(ii) [betw betw how [wamany people]] ...

5) Saito (1992) reports that an additional wh may ameliorate an ECP violation induced by an adjunct wh-in-situ, as indicated below:

(i) a. *Who bought the book why?
   b. Who bought what why?

We will not deal with this case here, and we will focus on the case where wh-in-situ is an argument.

6) Watanabe reports the following subject/object asymmetry of wh-in-situ toward additional wh effects:

(i) a. What books did you persuade who to give to whom?
   b. *What books did who persuade John to give to whom?

This contrast tells us that not every additional wh-phrase can save superiority effects.

Moreover, one of my informants provided interesting contrasts indicated below:

(ii) a. *What books did you tell what man to persuade whom to give to me?
   b. *What books did you tell what man to persuade whom to give to whom?

(iii) a. Which picture did you expect what man to tell what woman to persuade what artist to give to me?
   b. Which picture did you expect what man to tell what woman to persuade what artist to give to which girl?

(iv) a. Who knows what who bought?
   b. *Who knows who wonders what who bought?

These contrasts show that an additional wh-phrase anything but saves superiority effects; it degrades a grammaticality of a sentence in which too many wh-phrases exist. I will leave these matters open for further research.

7) He assumes the following stipulation in order to get the correct result:

(i) There is only one wh-relation per [+wh] Comp.

References


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dissertation, University of Massachusetts.


