Bowers (1987) observes that comparatives like angrier, more angry, and as angry are similar to definite noun phrases in that they form a syntactic island with respect to extraction and scope interpretation, which leads him to claim that both comparatives and definite noun phrases are members of the same syntactic category, called “Determiner Phrase” (DP). This paper argues against the DP analysis of comparatives and shows that what the DP analysis attempts to account for can be better accounted for in terms of a semantic notion like presupposition. It is emphasized that, generally, just because two or more kinds of syntactic units appear to behave similarly with respect to certain linguistic phenomena, that does not prove that they belong to the same syntactic category; there still remains the possibility of explaining the linguistic phenomena in question in terms of a semantic or pragmatic factor or factors which may range over different syntactic categories.*

Keywords: comparatives, definite noun phrases, island, presupposition

1. Introduction

Bowers (1987) makes the interesting observation that comparatives like angrier, more angry, and as angry are similar to definite noun phrases like the book in that they form a syntactic island with respect to extraction and scope interpretation. On the basis of this observation, he claims that both comparatives and definite noun phrases are members of the same syntactic category, called “Determiner Phrase,” or DP for short.

* I would like to thank Mikinari Matsuoka, Kevin Moore, Scott Saft, Kevin Varden, and Naoaki Wada for their helpful comments and suggestions. Responsibility for any errors is entirely my own.
In this paper, I will argue against Bowers’s view that comparatives are syntactically DPs headed by determiner-like degree elements such as -er, more, and as. I will show, in particular, that the type of “evidence” he provides for his position is actually no evidence for his position.

The point I will be emphasizing is, generally speaking, as follows: just because two or more kinds of syntactic units (say, definite noun phrases and comparatives) appear to behave similarly with respect to certain linguistic phenomena, that does not necessarily prove that they belong to the same syntactic category; there still remains the possibility of explaining the linguistic phenomena in question in terms of a semantic or pragmatic factor or factors which may range over different syntactic categories.

This paper is organized as follows. Section 2 outlines Bowers’s arguments that comparatives are DPs; they are all based on the apparent parallelism in islandhood between definite noun phrases and comparatives. Section 3 presents counterarguments to Bowers’s analysis, pointing out that comparatives are actually unlike definite noun phrases in that they exhibit certain asymmetries concerning islandhood. Section 4 argues that what properly explains both similarities and differences between comparatives and definite noun phrases is a semantic factor like presupposition which is independent of syntactic categories. Section 5 gives further arguments in favor of the semantic account over the DP analysis. Section 6 is a short conclusion.

2. Bowers’s (1987) Arguments That Comparatives Are DPs

As is well known, extraction is generally possible from indefinite noun phrases, but not from definite noun phrases. Thus, observe the grammaticality contrast between (1) and (2).

(1) Who did you buy pictures of?
   (2) a. *Who did you buy John’s pictures of?
   b. *Who did you buy those pictures of?
   c. *Who did you buy the pictures of?

Bowers attempts to account for this fact by adopting the “Barriers” system proposed by Chomsky (1986) and a version of the so-called DP Hypothesis (e.g. Brame (1982), Abney (1987), Fukui (1995)) to the effect that, while indefinite noun phrases are NPs headed by the lexical category N, definite noun phrases are DPs headed by a non-lexical
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category, D(eterminer), whose complement is NP. Thus the relevant parts of the sentences above are structurally represented as in (3) and (4).

(3) who did you [VP buy [NP pictures of t]]
(4) a. who did you [VP buy [DP John's [NP pictures of t]]]
   b. who did you [VP buy [DP those [NP pictures of t]]]
   c. who did you [VP buy [DP the [NP pictures of t]]]

Since Bowers uses the "Barriers" version of the Subjacency Condition, let me first explain it briefly. In the "Barriers" framework, the Subjacency Condition is interpreted like this: no movement may cross more than one barrier. The notion of barrier is based on other notions such as "L(exical)-marking" and "Blocking Category." Because the technical details of the "Barriers" system as such do not directly concern us here, it is sufficient in the present context to understand these notions roughly as follows:

(5) A lexical category (i.e. N, A, V, P) "L-marks" its complement XP, while a non-lexical category (i.e. COMP, INFL, DET) does not.
(6) XP is a "Blocking Category" if not L-marked.
(7) a. XP as a Blocking Category is a "barrier" for an element in it.
   b. If XP dominates a Blocking Category YP and no maximal projection (i.e. no XP-level category) intervenes, then XP "inherits" barrierhood from YP and forms a "barrier" for an element in YP.

With this in mind, let us now return to the structures in (3) and (4) and see how the grammaticality contrast between (1) and (2) is accounted for. In (3), the object NP is neither a Blocking Category nor a barrier because it is L-marked by the verb buy; therefore, the extraction of who out of the NP does not violate the Subjacency Condition. In each structure in (4), on the other hand, the NP in the object DP is a barrier because, in view of the definition of a non-lexical head like D as incapable of L-marking (see (5)), it cannot be L-marked by anything and hence is a Blocking Category; moreover, the DP "inherits" barrierhood from the NP (see (7b)) and forms a barrier for an element within the NP. Therefore, the extraction of who in (4) crosses at least two barriers, yielding a Subjacency violation. In effect, given the "Barriers" framework, Bowers's DP Hypothesis entails that no element in an NP dominated by a DP can be extracted from that
Bowers goes on to apply the DP Hypothesis to comparatives, which he observes are like definite noun phrases in that they form a syntactic island. Compare the sentences in (8) and (9).²

(8) a. Who is John fond of?
   b. Who is John very fond of?
   c. Who is John quite fond of?
   d. Who is John extremely fond of?

(9) a. *Who is John fonder of than Mary (is)?
   b. *Who is John as fond of as Mary (is)?

We see from these examples that extraction is possible from positive adjective phrases, but not from comparative adjective phrases. If it is assumed that comparatives are DPs headed by determiner-like degree elements, such as -er, more, and as, whose complements are (typically)

¹ Bowers gives a similar account of the contrast between the examples in (i) and (ii).

( i ) a. Who did you buy a picture of?
   b. Who did you buy three pictures of?
   c. Who did you buy many pictures of?

( ii ) a. *Who did you buy each picture of?
   b. *Who did you buy every picture of?
   c. *Who did you buy all pictures of?

He assumes that the indefinite article a/an, numerals like three, and quantifiers like many are adjectives, while quantifiers like each, every, and all are determiners. If so, the extraction in (i) is out of NP, whereas that in (ii) is out of DP, a Subjacency violation.

² Bowers's (1987: 53) original versions of the examples in (9) are without the optional (is), as shown below:

( i ) a. *Who is John fonder of than Mary?
   b. *Who is John as fond of as Mary?

But although Bowers does not mention it, these wh-questions are unacceptable only on the reading where Mary is interpreted as subject, not object. The declarative sentences, (ii) and (iii), corresponding to (ia) and (ib) are ambiguous between the "subject reading" (a) and the "object reading" (b).

( ii ) John is fonder of Bill than Mary.
   a. John is fonder of Bill than Mary is.
   b. John is fonder of Bill than (he is) of Mary.

( iii ) John is as fond of Bill as Mary.
   a. John is as fond of Bill as Mary is.
   b. John is as fond of Bill as (he is) of Mary.

According to my informants, the sentences in (i) are acceptable on the object reading of Mary. This is an important point to which I will return in Section 5.
APs, then the contrast between (8) and (9) can be automatically accounted for, since the DP Hypothesis, together with the “Barriers” system, predicts in the same way as illustrated above that, generally, no element in an XP (whether an NP or AP) dominated by a DP can be extracted from that DP.\(^3\)

For this reason, Bowers gives the sentences in (8) and (9) the following structures, where irrelevant details are omitted:

\[
\begin{align*}
(10) \quad & \text{a. who is John } [\text{AP } [A' \ [A \text{ fond}] \ [PP \text{ of } t]]] \\
& \text{b. who is John } [\text{AP very } [A' \text{ fond of } t]] \\
& \text{c. who is John } [\text{AP quite } [A' \text{ fond of } t]] \\
& \text{d. who is John } [\text{AP extremely } [A' \text{ fond of } t]]
\end{align*}
\]

\[
\begin{align*}
(11) \quad & \text{a. who is John } [\text{DP } [D' \ [D \text{ -er}] \ [AP \text{ fond of } t]] \ [\text{than Mary (is)}]] \\
& \text{b. who is John } [\text{DP } [D' \ [D \text{ as}] \ [AP \text{ fond of } t]] \ [\text{as Mary (is)}]]
\end{align*}
\]

Bowers assumes that predicate APs are L-marked by the verb that governs them. If so, in (10a) neither the AP nor the of-PP is a barrier, because they are L-marked by the verb is and the adjective fond, respectively; hence the extraction in this case is permitted. The same is true of (10b–d), where words like very, quite, and extremely are considered to be adverbial modifiers that do not enter into the matter of barrierhood. In (11), on the other hand, since the degree elements -er and as are non-lexical heads, they do not L-mark their AP complement, making it a Blocking Category and hence a barrier; moreover, the DP inherits barrierhood from the AP. It thus follows that the extraction in (11) crosses two barriers, a Subjacency violation.

Bowers also points out other parallels between definite noun phrases and comparatives which he thinks provide further evidence for his DP analysis.

First, wh- in situ is allowed in NP and AP, but not in DP:

\[
\begin{align*}
(12) \quad & \text{a. Who saw pictures of who?} \\
& \text{b. *Who saw those pictures of who?}
\end{align*}
\]

\(^3\) In a 1975 paper on English adjectives and adverbs as well, Bowers, like Bresnan (1973), takes degree elements to be instances of the category Determiner or Article. In this sense, his DP analysis of comparatives may be a natural extension of his 1975 position. See Bowers (1975) for details.
(13) a. Who is fond of who?
   b. *Who is fonder of who than Mary (is)?
   c. *Who is as fond of who as Mary (is)?

The grammaticality contrast here is explained in the same way as in the cases of syntactic extraction seen above, if it is assumed that the second instance of who is moved at LF (Logical Form) and that the Subjacency Condition applies not only to syntactic movement but also to LF-movement.

Second, every in NP and AP can have wide scope over the whole sentence, but not every in DP. Consider the following sentences:

(14) a. John bought photographs of everyone.
   b. John bought those photographs of everyone.

(15) a. Mary is fond of every boy in the class.
   b. Mary is fonder of every boy in the class than Sue (is).

While (14a) can be interpreted as “For every x, x a person, John bought photographs of x,” this interpretation is impossible in (14b), which only means something like “As for those photographs of everyone, John bought them.” As for (15), Bowers says, “Judgements are subtle and far from clear” (p. 54), but in his judgement, (15a) can be interpreted as “For every x, x a boy in the class, Mary is fond of x,” whereas (15b) cannot; it means roughly “Mary’s fondness for every boy in the class exceeds Sue’s.” It is because of the islandhood of DP that every in (14b) and (15b) cannot have scope outside DP (see Bowers (1987: 49–50) for more details on quantifier scope, which need not be discussed here).

Finally, the occurrence of the negative polarity item any is restricted by DP, but not by NP and AP:

(16) a. John never reads books that have any pages missing.
   b. *John never read the book that had any pages missing.

(17) a. John is never angry at anyone.
   b. *John is never angrier at anyone than Bill is.

(18) a. Mary isn’t fond of anyone in the class.
   b. *Mary isn’t as fond of anyone as Sue is.

Again, it is because of the islandhood of DP that any in the (b) sentences of (16)–(18) cannot be affected by the negative element.

From these observations, Bowers considers it reasonable to conclude that comparatives belong to the category DP, i.e. the same category as definite noun phrases.

Incidentally, Bowers also argues that the same applies to the so ...
that construction, where the degree modifier so followed by AP/AdvP forms a DP and hence an island. His argument is based on examples like the following, which he judges to be unacceptable:

(19) a. (*)Who is John so fond of that he can't sleep at night?
   b. (*)John is never so angry at anyone that he can't get his work done.  [The asterisks are Bowers’s.]

Unlike Bowers, however, my informants find these sentences acceptable, or at least better than the cases of comparatives seen above. I will also return to this point later.

3. Counterarguments

I find Bowers’s factual observations interesting, but I do not agree with his conclusion. In this section, I present counterarguments to his DP analysis of comparatives.4

If Bowers’s analysis were correct, the parallelism in islandhood between comparatives and definite noun phrases would always hold. But this is not the case. In fact, Bowers overlooks the fact that extraction is possible from comparative phrases introduced by than and as (e.g. Hankamer (1973), Brame (1983), Hasegawa (1987)). For example:5

4 With regard to extraction from noun phrases as well, matters are much more complicated than Bowers’s analysis suggests. In fact, as has occasionally been noted in the literature, extraction from definite noun phrases is allowed in some cases such as those in (i), while extraction from indefinite noun phrases can be impossible, as illustrated in (ii).

( i ) a. Which car do you like the gears in?  
   (cf. *Which car do you like the girl in?)  (Cattell (1976: 42))
   b. Who did you see the father of?  (Hirose (1982: 10))

   b. Who did John destroy a picture of?  
   (Erteschik-Shir and Lapin (1979: 74))

Here I simply point out these examples (but see footnote 10 below), and I would like to confine the discussion in this section to cases of the comparative construction. See also Diesing (1990, 1992), who discusses problems with Bowers’s analysis of definite and indefinite noun phrases.

5 On the other hand, as is commonly known, extraction is not possible from “than/as-clauses,” where than and as take finite clauses as their complements:

( i ) *Who is John taller than is?
( ii ) *Who is John as tall as is?

When I say “than/as-phrases” here and below, I mean only cases where than and as
(20) a. Who is John taller than?
   b. Who is John as tall as?

Hankamer (1973: 179) gives the following as attested examples (though, stylistically, they are somewhat awkward):

(21) a. You finally met somebody you're taller than.
   b. A lot of them I like mine better than.
   c. Who does she eat faster than?
   d. Only Tom does Max have a chance of being stronger than.

In light of such structures as those in (11), we may say that Bowers considers than/as-phrases to be adjuncts dominated by DP, probably on a par with adjunct PPs in definite noun phrases. But as for definite noun phrases, extraction is not possible from adjunct PPs:

(22) a. *Which shelf did you buy the book on?
   b. *Which name did you meet the person with?

If than/as-phrases are adjuncts dominated by DP, then the sentences in (20) are given the following structures:

(23) a. who is John [DP [D' [D -er] [AP tall]] [PP than t]]
   b. who is John [DP [D' [D as] [AP tall]] [PP as t]]

Note that in (23) the PP is a barrier because it is not L-marked by anything; moreover, the DP inherits barrierhood from the PP. It then follows that the extraction of who crosses two barriers. Hence the sentences in (20) should be ungrammatical. But actually they are not.

Even if than/as-phrases are taken to be complements to degree elements, they remain barriers exactly because degree elements are characterized as non-lexical heads.

I hasten to add that it is not possible to assume that than/as-phrases are not inside but outside DP, because examples such as (24) show that they are inside DP.

(24) a. How much taller than me are you?
   b. Taller than John though she is, she was not chosen for the basketball team. (cf. Pinkham (1982: 120))

take noun phrases as their complements. Differences between than/as-phrases and than/as-clauses are discussed at length by, among others, Brame (1983) and Pinkham (1982). See also Hankamer (1973), who discusses from a cross-linguistic perspective why there are two types of comparative constructions, phrasal and clausal ones.
Furthermore, as pointed out by Brame (1983), *wh*- in situ is allowed in *than/as*-phrases:

(25) a. Who is taller than who?
    b. Who is as tall as who?

And quantifiers in *than/as*-phrases can have wide scope:

(26) a. John is taller than everyone in the class.
    b. John is as tall as everyone in the class.
(27) a. John is taller than no one in the class.
    b. John is as tall as no one in the class.

Here both *everyone* and *no one* have scope over the whole sentence. That is, sentences (26a) and (26b) are interpreted, respectively, as “For every person x in the class, John is taller than x,” and “For every person x in the class, John is as tall as x”; (27a) and (27b) are interpreted, respectively, as “There is no person x in the class such that John is taller than x,” and “There is no person x in the class such that John is as tall as x.”

Finally, the negative polarity item *any* can occur in *than/as*-phrases:

(28) a. John isn’t taller than anyone in the class.
    b. John isn’t as tall as anyone in the class.

All these facts about *than/as*-phrases contradict Bowers’s DP analysis of comparatives, which means that comparatives cannot be syntactically characterized as DPs.

4. A Semantic Account

The discussion so far has made it clear that comparatives exhibit asymmetries with respect to islandhood. That is, NP complements to comparative adjectives cannot be extracted or have wide scope (but see footnote 2), whereas NP complements to comparative *than* and *as* can. It is only in the former cases, and not in the latter cases, that comparatives can appropriately be said to be similar to definite noun phrases. In this section, I argue that what properly explains both similarities and differences between comparatives and definite noun phrases is a semantic notion like presupposition which is independent of syntactic categories.

It should first be noticed that, just as definite noun phrases generally have “presuppositions,” so do comparatives. Consider the following examples:

(29) John bought pictures of Mary.
(30)  
   a. John bought Bill's pictures of Mary.
   b. John bought those pictures of Mary.
   c. John bought the pictures of Mary.

(31)  John is fond of Mary.

(32)  
   a. John is fonder of Mary than Bill (is).
   b. John is as fond of Mary as Bill (is).

While the existence of pictures of Mary is part of assertion in (29), it is presupposed in (30). Similarly, that John is fond of Mary is literally asserted in (31), but it is presupposed in (32), where it is the degree to which John is fond of Mary that is asserted.

This point will become clear if we consider the corresponding negative sentences:

(33)  John didn't buy pictures of Mary.

(34)  
   a. John didn't buy Bill's pictures of Mary.
   b. John didn't buy those pictures of Mary.
   c. John didn't buy the pictures of Mary.

(35)  John isn't fond of Mary.

(36)  
   a. John isn't fonder of Mary than Bill (is).
   b. John isn't as fond of Mary as Bill (is).

Generally, a presupposed part of a sentence, unlike an asserted part, is not affected by negation. Thus, the existence of pictures of Mary is still implied in (34), but not necessarily in (33).6 Likewise, that John is fond of Mary is still implied in (36), but it is directly negated in (35).

It is worth noting in this regard that the comparatives of "descriptive" adjectives such as tall, big, and old have a different type of presupposition than those of "emotive" adjectives such as fond, angry, and fearful. For example, the sentences in (37), where the adjective tall is compared, do not presuppose that John is tall.

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6 Indefinite noun phrases can have existential presuppositions, depending on context. Thus, as Kiparsky and Kiparsky (1970: 167) observe, sentence (i), as opposed to (ii), presupposes that there was an ant on my plate.

( i )  I ignored an ant on my plate.
( ii )  I imagined an ant on my plate.

The existential presupposition of (i) stems from a certain semantic property of the verb ignore. Such cases as this are discussed in more detail by Nakau (1979) and Diesing (1990, 1992).
(37) a. John is taller than Bill.
   b. John is as tall as Bill.

What is presupposed in (37) is, rather, that John is of a certain height. Hence the following contrast (cf. Bolinger (1977) and Cruse (1986: Ch. 9)):

(38) *John is angrier than Bill, but he still isn’t angry.
(39) John is taller than Bill, but he still isn’t tall.

Sentence (38), where the emotive adjective angry is compared, is unacceptable exactly because what is presupposed in the first conjunct (i.e., that John is angry) is negated in the second conjunct. On the other hand, (39) is acceptable because what is presupposed in the first conjunct is not that John is tall, but that John is of a certain height, which is not negated in the second conjunct.7

This presuppositional property of the comparatives of descriptive adjectives suggests that the presupposition of comparatives in general actually corresponds not to the syntactic category “Adjective” but to the semantic category “Degree,” to which belong various gradable properties, whether descriptive or emotive (see Kennedy (2001) on the notion of degrees). That is, the presupposition of such comparatives as taller and as tall applies not to the syntactic unit tall as such, but to the gradable concept of height, which the tall in taller and as tall is intended to represent. If so, we can say that taller and angrier are no longer different in that they have presuppositions with respect to the gradable concepts of height and anger.

With all these observations in mind, let us return to the issue of islandhood. We now see that the relevant principle is intuitively as follows:

(40) A presupposed part of a sentence constitutes an island with respect to both extraction and scope interpretation.

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7 The same is true of short as the antonym of tall:

(i) John is shorter than Bill, but he still isn’t short.

But when used in a how-question and an equal-comparison construction, as in (ii) and (iii), short, unlike tall, is “biased,” to use a term of Bolinger’s.

(ii) How short is John?
(iii) John is as short as Bill.

Sentences (ii) and (iii) presuppose that John is short. For detailed discussions, see Bolinger (1977) and Cruse (1986).
There is nothing new about this principle. The necessity of such a non-syntactic principle has often been noted in the literature, and in fact a number of principles to the same effect in spirit, if not in letter, have so far been proposed, such as Erteschik-Shir and Lappin’s (1979) “Dominance Principle,” Nakau’s (1979, 1983) “Anaphoricity Constraint,” Fiengo and Higginbotham’s (1981) and Ike-uchi’s (1981) “Specificity Condition/Constraint,” Kuno’s (1987) “Topichood Condition,” Takami’s (1991, 1992) “More/Less Important Information Condition,” and so on (see also Nogawa (2001) for another semantic type of condition on extraction).8

Here I will not go into or compare the details of these various principles, since the purpose of the present discussion is to show that it is not a syntactic factor like Subjacency, but rather a semantic factor like presupposition, that is actually responsible for the linguistic phenomena under consideration, and not to argue about the more precise nature of the semantic factor itself (on this point, see Deane (1991, 1992: Ch. 1), who discusses in detail the cognitive nature of island phenomena from the viewpoint of a cognitive theory of attention).

It is therefore sufficient for the present purpose to define the notions of presupposition and a presupposed part of a sentence, if only tentatively, as follows:9

8 Diesing (1990, 1992) attempts to reformulate a semantic principle like (40) as a purely formal condition on so-called LF representations. “Purely formal” because her proposed condition, characterized as a “condition on trace binding” (Diesing (1990: 232)), does not refer to any semantic notion. But as far as I can see, her attempt is not entirely successful, in that her condition can only deal with cases of noun phrases.

9 Pragmatically, a presupposition is what is taken for granted—and hence not asserted, negated, or questioned—by the speaker at the time of utterance. For a recent detailed discussion of the notions of presupposition and assertion, see Lambrecht (1994), who defines them in pragmatic terms as follows (p. 52):

(i) **PRAGMATIC PRESUPPOSITION**: The set of propositions lexicogrammatically evoked in a sentence which the speaker assumes the hearer already knows or is ready to take for granted at the time the sentence is uttered.

(ii) **PRAGMATIC ASSERTION**: The proposition expressed by a sentence which the hearer is expected to know or take for granted as a result of hearing the sentence uttered.

Here I will not go further into the question of how presupposition should be characterized.
A sentence $S$ presupposes a conceptual unit $C$ if both $S$ and its internal negation entail $C$.

A presupposed part of $S$ is that part which corresponds to a presupposed conceptual unit.

Here we understand a "conceptual unit" to range over various conceptual categories such as things, properties, states, actions, events, and so on. The modification of "negation" by "internal" is necessary because, as is well known from examples concerning that notorious "king of France," external, as opposed to internal, negation can cancel a presupposition, as in (42) (e.g. Levinson (1983: Ch. 4), Horn (1989: Ch. 6)).

(42) The king of France isn't bald, because there is no king of France.

This sentence roughly means "Since there is no king of France, it is not true or appropriate to say that the king of France is bald." In contrast, only if there is a king of France can we say, for example, like this:

(43) The king of France isn't bald; he has some hair.

Unlike (42), (43) is a case of internal negation where the conceptual unit "king of France" is presupposed, not affected by negation.

Generally, a conceptual unit cannot be presupposed unless its reference is fixed in discourse. Moreover, the reference of a conceptual unit cannot be fixed unless all of its argument places are filled. Therefore, a conceptual unit, if presupposed, cannot have an open argument slot in it. It is for this reason that a presupposed part of a sentence constitutes an island.

Keeping this in mind, we now turn to the following examples, those given toward the beginning of this section:

(44) a. John bought Bill's pictures of Mary.
   b. John bought those pictures of Mary.
   c. John bought the pictures of Mary.

(45) a. John is fonder of Mary than Bill (is).
   b. John is as fond of Mary as Bill (is).

As is clear from the discussion so far, the conceptual unit "pictures of Mary" is a presupposed part of each sentence in (44); similarly, the conceptual unit "(John is) fond of Mary" is a presupposed part of each sentence in (45). Hence they both constitute an island, and extraction out of those parts is not allowed:}

\[10\] In this connection, I would like to make a brief comment on the acceptability
(46)  a. *Who did John buy Bill’s pictures of?
b. *Who did John buy those pictures of?
c. *Who did John buy the pictures of?

(47)  a. *Who is John fonder of than Bill (is)?
b. *Who is John as fond of as Bill (is)?

In sentences (48) and (49) below, on the other hand, “pictures of Mary” and “fond of Mary” are parts of assertion, and not presupposed.

(48) John bought pictures of Mary.
(49) John is fond of Mary.

The conceptual unit “Mary,” though, is a presupposed part, since these sentences and their negative counterparts entail that there is a particular person called Mary. But note that it is extraction out of a presupposed part of a sentence that must be prohibited; a presupposed part as a whole is movable, unless it is contained in a larger presupposed part. Thus:

(50) Who did John buy pictures of?
(51) Who is John fond of?

By the same token, the conceptual units “Bill” and “soccer” in (52) are presupposed parts as such, and not contained in any larger presupposed parts.

(52)  a. John is taller than Bill.
      b. John is as fond of baseball as soccer.

Hence the acceptability of the following sentences (see also the exam-

of a sentence like (i), given in footnote 4:

(i) Who did you see the father of?

A definite noun phrase like the father of John is different from the picture of John in that it allows not only a presupposed but also a non-presupposed reading. On the presupposed reading, it is used to pick out and talk about a particular father with a son called John. On the non-presupposed reading, in contrast, it is used to talk not about a particular father but about a particular person with a father, namely John; in this case, it does not matter at all who is John’s father. That is, the father of John can be used even without knowing who is John’s father (cf. Donnellan’s (1966) distinction between the “attributive” and “referential” uses of definite descriptions and Fauconnier’s (1985) distinction between the “role” and “value” interpretations of noun phrases). Of course, only on the non-presupposed reading is sentence (i) acceptable. On the other hand, the picture of John cannot normally be understood without knowing which picture of John is meant.
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By contrast, Bill in a sentence like (54a) is contained in the larger presupposed part Bill is, and therefore sentence (54b) is unacceptable (cf. footnote 5).

(54) a. John is taller than Bill is.
   b. *Who is John taller than is?

The same kind of explanation as I have just offered for extraction phenomena also applies to the cases of scope interpretation discussed in Section 2, namely, examples (14)–(18). A quantifier like every in a presupposed part of a sentence cannot have wide scope over the whole sentence because the quantification is encapsulated in the presupposed conceptual unit. Furthermore, the negative polarity item any cannot occur in a presupposed part of a sentence because, while it must be affected by negation, the presupposed part itself cannot be negated; that is, one does not normally question or deny what one assumes to be presupposed (cf. Kiparsky and Kiparsky (1970)).

On the other hand, as observed in Section 3, every in (55) has wide scope and any is allowed to occur in (56).

(55) a. John is taller than everyone in the class.
   b. John is as tall as everyone in the class.

(56) a. John isn’t taller than anyone in the class.
   b. John isn’t as tall as anyone in the class.

Note that every and any here are not contained in any presupposed part. It is simply the part -one in the class that is presupposed. That is, both (55) and (56) presuppose a given set of persons in the class, and the syntactic part that corresponds to this conceptual unit is -one in the class, where -one functions as a variable whose range is the set of persons in the class (see McCawley (1992) and Hirose (1997) for related discussion). Hence (55) and (56) are no different from simple cases such as those below:

Unlike (53b), the wh-question in (i) is not acceptable.

(i) *Which sport is John fonder of baseball than?

At present, I have no idea why this is so. According to my informants, replacing fonder of with the synonymous like better yields a better sentence:

(ii) (?)Which sport does John like baseball better than?
(57) John talked to everyone in the class.
(58) John didn’t talk to anyone in the class.

Let us now return to the issue of the *so ... that* construction mentioned toward the end of Section 2. To repeat the point, Bowers, who claims that the degree modifier *so* followed by AP/AdvP forms a DP, judges examples like the following to be unacceptable, whereas my informants find them acceptable:

(59) Who is John so fond of that he can’t sleep at night?
(60) John is never so angry at anyone that he can’t get his work done.

It is my informants’ judgments, not Bowers’s, that accord with the present analysis. The affirmative sentences, (61) and (62), corresponding to (59) and (60) are taken to assert that John is very fond of Mary and that John is very angry at Bill (see Quirk et al. (1985: 1143) for related discussion).

(61) John is so fond of Mary that he can’t sleep at night.
(62) John is so angry at Bill that he can’t get his work done.

Hence they are no different from (63) and (64) in that they do not presuppose that John is fond of Mary and that John is angry at Bill.

(63) John is very fond of Mary.
(64) John is very angry at Bill.

It follows that, just as the *wh*-question in (65) and the negative sentence in (66) are acceptable, so too are (59) and (60).

(65) Who is John very fond of?
(66) John is never very angry at anyone.

In fact, there are attested examples such as the following which involve extraction from the AP in the *so ... that* construction:

(67) a. His next book, he says, will examine the myriad uses of vinegar, a liquid that he’s *so fond of* that his golfing pals call him “Vinegar.”
(Ross Atkin, “Meet ‘Vinegar,’ The Fix-It Guy”)

b. He discusses the Clerihew, a form Taylor himself grew *so fond of* that it only took him eight months to compile a whole book of them. (Jessica Turner, “Whose Lines These Are, I Think I Know”)

(68) a. Who are you *so angry with* that you could just spit?
(First Baptist Church, “A Recipe for Processed Anger”)

b. I need a happy ending or it would become a book I get *so angry with* that I’d be trying to forget it afterwards,
rather than fondly remembering it or ever reading it again. (Tom Francis, “Review of High Fidelity by Nick Hornby”)

In any case, even if native speakers’ judgments vary with respect to _so ... that_ constructions like (59) and (60), I think it undeniable that they are at least better than the unacceptable cases of comparative constructions seen above. And it is my analysis, not Bowers’s, that can explain why this is so.

5. Further Arguments for the Semantic Account

In this way, the present semantic analysis—call it the presuppositional analysis—can provide a coherent explanation for what Bowers’s DP analysis of comparatives fails to explain, i.e., why it is that NP complements to comparative adjectives cannot be extracted or have wide scope (with a proviso to be discussed below), whereas NP complements to comparative _than_ and _as_ can. In what follows, I will present further arguments in favor of the presuppositional analysis over the DP analysis.

First, consider the grammaticality contrast between the (b) sentences in (69) and (70).

\[(69)\]
\begin{align*}
a. & \text{ John fries potatoes more often than Sally swims in the Gulf.} \\
b. & \text{*What does John fry more often than Sally swims in the Gulf?}
\end{align*}

\[(70)\]
\begin{align*}
a. & \text{ John fried potatoes while Sally swam in the Gulf.} \\
b. & \text{What did John fry while Sally swam in the Gulf?}
\end{align*}

This contrast is pointed out, but left unexplained, by Dieterich and Napoli (1982: 154), who remark, “Extraction from the matrix of a comparative sentence, [(69b)], is considerably worse than extraction from the matrix of a similar adverbial clause sentence, [(70b)].” Similarly for the following examples:

\[(71)\]
\begin{align*}
a. & \text{ What did Mary read while John played golf?} \\
b. & \text{*What does Mary read more often than John plays golf?}
\end{align*}

The presuppositional analysis can account for the contrast between (69) and (70) straightforwardly and in exactly the same way as in the cases of comparative adjectives we have already examined. A moment’s reflection on the corresponding negative sentences, (72) and (73), shows that (69a) presupposes John’s action of frying potatoes, whereas
(70a) does not.

(72) John doesn’t fry potatoes more often than Sally swims in the Gulf.

(73) John didn’t fry potatoes while Sally swam in the Gulf.

This means that in (69a), but not in (70a), the conceptual unit “John fries potatoes” is a presupposed part out of which no element can be extracted. Hence the grammaticality contrast.12

As far as comparative sentences like (69b) and (71b) are concerned, the DP analysis as it stands has nothing whatever to say about why they are ungrammatical, because they involve extraction of an element that is not syntactically dominated by the comparative head. The ungrammaticality of those examples reveals that the islandhood of comparatives in general stems not from their syntactic nature but from their semantic nature.

Second, the presuppositional analysis can also predict the grammaticality contrast between the (a) and (b) sentences in (74) and (75).

(74) a. John didn’t fry any potatoes while Sally swam in the Gulf.

b. ??John doesn’t fry any potatoes more often than Sally swims in the Gulf.

(75) a. Mary didn’t read any books while John played golf.

b. ??Mary doesn’t read any books more often than John plays golf.

Here the (b) sentences are ungrammatical exactly because any occurs in their presupposed parts, which cannot be affected by negation. Here again, we find that it is not a syntactic category like DP, but rather a semantic notion like presupposition, that truly restricts the occurrence of the negative polarity item any.

Third, in contrast to (69b), (76b) is acceptable.

12 Dieterich and Napoli (1982: 154) mark (69b) with a question mark instead of an asterisk. They do so in order to indicate that, while it is considerably worse than (70b), it is relatively better than (i) below, where what is extracted from the comparative than-clause.

(i) *What does John fry potatoes more often than Sally swims in? This sentence is worse than (69b) because not only is the than-clause a presupposed domain, but it is also more embedded than the main clause, a fact that the Subjacency Condition is intended to capture.
(76) a. I play Hearts more often than Bridge.
b. What card games do you play more often than Bridge?
   (Dieterich and Napoli (1982: 155))

Note that in (69) two actions are compared (i.e. John’s frying potatoes and Sam’s swimming in the Gulf), whereas it is the same type of things (i.e. card games) that are compared in (76). The same is true of the following pair of examples, where what is compared is two sports:

(77) a. I like baseball better than soccer.
b. What sport do you like better than soccer?

If so, the acceptability of the (b) sentences in (76) and (77) can be accounted for by assuming a principle like this:

(78) When the same type of things (including persons) are compared rather than states or actions, the presupposed domain is restricted to the NP corresponding to those things, not extending to the VP or S containing them.

It then follows that (76b) and (77b) do not involve extraction out of a presupposed domain. This kind of treatment is independently necessary when we deal with another type of comparative construction exemplified in (79).

(79) a. Which do you like better, cats or dogs?
b. Which do you prefer, tea or coffee?

In these wh-questions, the speaker does not necessarily presuppose that the addressee likes cats (or dogs), let alone that the addressee prefers tea (or coffee); what is presupposed is the existence of cats and dogs in (79a) and that of tea and coffee in (79b). Likewise, in (77a) the (speaker’s) state of liking baseball is not necessarily presupposed, and so the corresponding VP “like baseball” is not a presupposed part. This is confirmed by the fact that sentences like (77a) allow a negative sentence with any:

(80) I don’t like anything better than soccer.

It goes without saying that principle (78) applies to adjectival comparative constructions as well. Compare:

(81) a. John is fonder of baseball than Harry (is).
b. John is as fond of baseball as Harry (is).

(82) a. John is fonder of baseball than soccer.
b. John is as fond of baseball as soccer.

In (81) what is compared is John’s and Harry’s fondness for baseball; so it is presupposed that both John and Harry are fond of baseball. This means that the AP “fond of baseball” is a presupposed part in
(81). In (82), on the other hand, it is two sports that are compared; by principle (78), therefore, the presupposed domain does not extend to the AP “fond of baseball.” This makes extraction out of the AP possible in (82). Hence the following grammaticality contrast:

(83) a. *What sport is John fonder of than Harry (is)?
   b. *What sport is John as fond of as Harry (is)?

(84) a. What sport is John fonder of than soccer?
   b. What sport is John as fond of as soccer?

A similar contrast can be found with respect to the occurrence of the negative polarity item any:

(85) a. ??John isn’t fonder of anything than Harry (is).
   b. ??John isn’t as fond of anything as Harry (is).

(86) a. John isn’t fonder of anything than soccer.
   b. John isn’t as fond of anything as soccer.

It is also for the same reason that, as mentioned in footnote 2, the following wh-questions are unacceptable on the subject reading of Mary, but acceptable on the object reading:

(87) (*)Who is John fonder of than Mary?
(88) (*)Who is John as fond of as Mary?

Observe further the attested examples below, all of which except the last one involve relativization from object position:

(89) If there was one person Maggie was fonder of than “dear Walter” it was her Energy Secretary, Cecil Parkinson.
   (Richard Lindley, “Playing for Power”)

(90) But, once more, there’s no other woman that you’re fonder of than me?
   (Rolf Boldrewood, Robbery Under Arms)

(91) Tad: He was—he was just a punk. You know, he was scared.
   Dixie: Of you?
   Tad: No. I mean, you know, maybe. No, there was definitely something he was a lot more scared of than me.
   (All My Children Transcripts, July 16, 2001)

(92) There are no authors I am more pleased with than those who show human nature in a variety of views.
   (Joseph Addison, The Spectator)

(93) I wrote a letter of recommendation for one of them to his Mississippi draft board, a letter which I am more proud of than anything else I wrote at Oxford last year.
   (Bill Clinton’s Letter to Col. Eugene Holmes, Dec. 3, 1969)
There is probably no one thing that we are more confident of than this notion that we know ourselves.

(94) (Ray C. Stedman, “Whoever Said Life Was Fair?”)

(95) The only thing I’m more dependent on than alcohol is nicotine, and it bothers me that, inevitably, I smoke more heavily when I’m drinking. (Health Magazine, December 2001)

(96) But you know who I get madder at than someone who sells their vote? Someone who trades it for a pat on the back by an elected official. (Chip Brown, “Let the Bidding Begin”)

Here, too, the NPs following than receive the object reading, as expected from principle (78).

It should by now be clear that, unlike the presuppositional analysis, the DP analysis cannot account for the contrasts observed in (83)–(88) or the grammaticality of (89)–(96). After all, under the DP analysis, all the examples in (83)–(96) should be treated in the same way because all comparatives are assumed to be dominated by the category DP.

Finally, the presuppositional analysis is applicable not only to definite noun phrases and comparatives but to other syntactic units as well. One well-known class of such cases is that of complement clauses with “factive” presuppositions (cf. Kiparsky and Kiparsky (1970)). I know things are not always so clear-cut, but at least in clear cases, extraction is possible from the complement clauses of non-factive verbs like think and say, but not from those of factive verbs like regret and forget:

13 The present analysis is not without problems, however. There are attested examples like (i) and (ii) in which the NPs following than receive the subject reading rather than the object reading.

( i ) Self-promotion is something lots of other people are better at than me.

(Lloyd Harrison Whitling, “Self-Aggrandizement”)

(ii) In school, sports, general or trivial knowledge, or anything that you could be better at than someone else, we would have to compete.

(Shafiq Perry, “Some Things Are Overlooked”)

I have no principled explanation for these cases, but suspect that their acceptability has something to do with the fact that the predicate better at evokes our inclination to compare ourselves with others and determine who is better, and thus it makes comparison of subjects more prominent. Note also that, just because we are “better” at something than others, that does not presuppose that we are “good” at it, because even if two people are “bad” at something, one may be “better” than the other (see Cruse (1986: 213–216) for related discussion).
(97)  a. Why does Mary think that John left?
b. Why does Mary say that Bill got angry?
(98)  a. *Why does Mary regret that John left?
b. *Why does Mary forget that Bill got angry?
[OK only on the reading where why modifies the main clause, not on the reading where it modifies the embedded clause]

Unlike the sentences in (97), those in (98) do not allow the interpretation in which why asks for the reason for the situation described in the complement clause (cf. Cattell (1978)). Likewise, the negative polarity item any can occur in the non-presupposed complements of think and say, but not in the presupposed complements of regret and forget:

(99)  a. Mary doesn’t think that anybody left.
b. Mary doesn’t say that anybody got angry.
(100) a. *Mary doesn’t regret that anybody left.
b. *Mary doesn’t forget that anybody got angry.

To account for these cases, the DP analysis might stipulate that presupposed complement clauses should syntactically be DPs, distinguished categorially from non-presupposed complement clauses. But if so, almost any problematic case could be explained away in the same manner even without considering seriously the real nature of the linguistic phenomena in question, and such a theory would become totally meaningless as a linguistic theory.

6. Conclusion

It is now clear that Bowers’s arguments do not prove that comparatives are syntactically DPs. As I have amply demonstrated in this paper, the parallels in islandhood between definite noun phrases and comparatives, together with their differences, can and should be accounted for in terms of such a semantic notion as presupposition, which ranges over different syntactic categories. I argue in Hirose (2000, 2001) that comparatives in English are syntactically APs or AdvPs and the syntactic and semantic differences observed between comparative and positive forms can be explained in terms of simple semantic rules and restrictions which are necessary independently of particular syntactic categories and the lexical/phrasal distinction. I believe that this line of approach to linguistic phenomena will lead to truly significant generalizations about form-meaning correspondences in language.
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