Pseudo-Inverse Copular Structures and Copular Omission in English Comparative Correlatives*

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Abstract

In this article, we argue that comparative correlatives share much in common with specificational copular sentences and thus correspond to the structures described in den Dikken (2006) as Specificational Type A structures. We begin by presenting a revised analysis of the copula-construction analysis of Hatakeyama (1997), positing movement of the copula verb to Fin^0, instead of C^0. We then consider cases of copula omission which are internal to the second clause of comparative correlative constructions, such as in *the more difficult the problem (is), the more tired the student (is)*. We argue that the copula in these sentences moves to Fin^0, and subsequently undergoes PF ellipsis. We further extend this analysis of the copula to the copula that sits in between the clauses in comparative correlatives (e.g. *the more we eat ~~is~~ the happier we become*), which is optionally overt in Jamaican English but covert in Standard English. We argue that this second case of the copula undergoes exactly the same syntactic operation as the first, moving to Fin^0. We thus establish that comparative correlatives derive from a predication built from the so-called reversed comparative correlative (e.g. *We become happier the more we eat*), using den Dikken's (2006) predicate-inversion analysis and its null functional head. Overall, we argue that the comparative correlative is, from a larger perspective, an inverse copula construction.

Keywords: Finiteness, Specificational Copular Sentences, Comparative Correlative, Generic Sentences

1. Introduction

Comparative Correlatives such as *The more you eat, the fatter you will get* have been largely characterized as constructions that remain on the periphery of a language's grammar (McCawley 1988; Jackendoff & Culicover 1999; Abeillé & Borsley 2008; Borsley 2011). The general claim is that this construction is composed of two parts that are linked in a structure that looks much like conjunction, as in (1), taken from Jackendoff & Culicover (1999).

(1) [CP/IP [C_1 the more [CP I read]] [C_2 the more [CP I understand]]]

Jackendoff & Culicover (1999) extended their analysis to the claim that these constructions are generated *sui generis* as a paratactic structure because "it does not conform to the general patterns of X-bar theory" (p. 567). They note that the initial clause (C_1) has the interpretation of a

· We wish to express our deepest gratitude to Marcel den Dikken for numerous comments on an earlier version. We are also grateful to Alison Irvine and Terri Ann Jacqui Barrett, our informants for Jamaican English, and Peter Sells, Chris Cummins, Sinclair Lucas, Jason Merchant, Andrea Moro, Andrew Radford and Akira Watanabe for their valuable suggestions and/or grammaticality judgements. All remaining errors, however, solely belong to us.

subordinate clause while the second clause (C_2) appears to be a main clause, but extraction tests show that neither clause is an adjunct or argument of the other. Thus, there appears to be a mismatch between the syntax and semantics of these sentences. On the other hand, while acknowledging the possibility of a minimalist/functional-head-based solution to comparative correlatives, Borsley (2011) has offered an HPSG analysis of the construction.

In the face of the apparent intransigence of this construction for a generative analysis, several observations cast doubt on the paratactic hypothesis. First, we note that many languages have the comparative correlative construction (Taylor 2006; den Dikken 2005), which is not really expected for *constructions*. For instance, the *one's-way*-construction found in English does not appear in Japanese. On the assumption that constructions specific to a particular language are the product of an admixture of lexical ingredients and/or what Jackendoff (1999: 336) calls 'correspondence rules', i.e., rules which map from syntax to conceptual structure, the processes that create constructions unique to a particular language should be more distant from the core than constructions which occur across all languages. Since comparative correlatives exist across many, if not all, languages, we would expect for their analysis to include properties associated with UG.

A second important set of observations come from Late Modern English (from Iwasaki 2011b and Tagawa & Iwasaki 2011) and Jamaican English (Iwasaki 2008). Consider the following passages.

(2) a. Kirkpatrick, however, in the course of time became unfortunate in his business, which, the more extensive it grew, **was** the more heavily affected by the cosmopolitan convulsions, which shook commercial relations for a long time after the ...[J. Marwell & Comp. 1865. *Napoleon III the Third and his Court by a Retired Diplomatist*, p. 241]

b. In other words, virtue, the more disinterested it is**, is** the more prolific of happiness to him who follows it; and then it is, that, when freed from all the taints of mercenary selfishness, it yields to its votary the most perfect and .... [Thomas Chalmers. 1834. *On the Power, Wisdom, and Goodness of God; As Manifested in the Adaptation*. Carey, Lea & Blanchard, p. 49.]

(3) a. …and the more you have **is** the more expenditures they are using on the ground so….
[Minister of Tourism of Jamaica in the interview of *The Jamaica Observer*]

b. "the more the economy grows**, is** the better it is for all of us. …".
[A corporation's President in Jamaica's Government Page]

c. …the quicker we are able to get your transactions out of the titles office**, is** the more that persons will come in,…. [Jamaica's Government Page]

d. …the less you consume **is** the less you will spend and the more you will be able to save. [Jamaica's Government Page]

e. The more you think you learn **is** the more there is to learn. [*Jamaica Gleaner*]

In the data in (2), Late Modern English exhibits a pattern common enough, where, although not a comparative correlative in the modern sense, still resembles one in interesting ways.[1] The data for Jamaican English, on the other hand, demonstrate the existence of English comparative correlatives that contain an overt copula between C_1 and C_2, a fact that suggests the viability of an analysis of comparative correlatives that uses predication, a foundational property of UG, as a starting point. We will indeed make this assumption and attempt to build an analysis that accounts for the relationship between C_1 and C_2, as well as the copula omission possibilities within the second

[1] Our thanks to Peter Culicover for relevant discussion of these examples.

clause.

The main purpose of the present article is to propose a novel analysis of the comparative correlative construction using the Predicate Inversion analysis developed in den Dikken (2006). As shown in Iwasaki (2011a, 2011c), comparative correlatives are syntactically related to copular sentences and specificational pseudoclefts (in particular, the 'Type A' specificational pseudocleft in den Dikken, Meinunger, & Wilder (2000)),[2] and harbour a sometimes overt copula between the two clauses. The questions that naturally arise relate to the type of copular construction we are dealing with and what its derivation might be.

We adopt den Dikken's (2006: 157-158) observation that the specificational pseudocleft Type A and a certain type of inverse copula construction (see 3.2) have parallel syntactic structures. Den Dikken (ibid) argues, ascribing the original argument to den Dikken, Meinunger, and Wilder (2000), that specificational pseudoclefts 'marginally resist embedding in non-bridge contexts but are completely incompatible with subject-auxiliary inversion'. The following in (4b,c) is from den Dikken (2006: 157).

(4) a. Bill thinks that what nobody bought was any wine.
b. ?Imogen wonders why what nobody bought was any wine.
c. *Was what nobody bought any wine?

Interestingly, comparative correlatives in Jamaican English follow a similar pattern for bridge verbs and the same pattern with respect to subject-auxiliary inversion, as shown in (5).

(5) a. I believe that the more Bob eats is the fatter he gets.
b. I believe that the more Bob eats, the fatter he gets.

(6) a. The more John eats is the happier he will become.
b. *Is the more John eats the happier he will become?

Based on the data in (4), Den Dikken (ibid) establishes a parallel between specificational pseudoclefts and inverted copular sentences such as the following (his example):

(7) A big problem is the fascist propaganda.

We will argue for the adoption of the same line of reasoning and work to establish a parallel between the comparative correlative and the specificational pseudocleft Type A in Standard English. Thus, the comparative correlative in Standard English and its counterpart in Jamaican English will have the same syntactic structure with the only difference being the covert copula between the two clauses in the former and the possibility of an overt one in the latter (cf. See Tagawa & Iwasaki (2012: 77) for support of this view based on Late Insertion of Distributed Morphology.)

We will also explore the semantic nature of the subject of the copula verb in examples such as in sentence (8) below.

(8) The more difficult the problem **(is)**, the more tired the student **(is)**.

Culicover & Jackendoff (1999: 554), building upon McCawley (1988), suggest that clause-internal

[2] As Iwasaki (2011a, 2012a) acknowledges, the original observation that there is a parallel between Comparative Correlatives in Jamaican English and Specificational Pseudoclefts Type A is due to Marcel den Dikken (pc).

copula omission in the comparative correlative is possible only when the subject is non-specific, or generic and variable. Moreover, Culicover (1999: 122) adds a second requirement that the subject must be definite generic in the second clause.

(9) a. The more difficult a problem *(is), the more intractable the solution (is).
b. The more cavier there is to eat, the happier a guest *(is).
c. The richer a man (is), the thriftier he *(is). [3]

The semantic nature of the subject thus appears to be highly relevant to this type of copula omission. However, Culicover & Jackendoff (1999), as well as Abeillé & Borsley (2008), assume that this semantic constraint is only an accidental property of the comparative correlative construction; to our knowledge, no research has yet explained this phenomenon on principled grounds. Hence, the goal of this article is twofold: (1) to provide an analysis for comparative correlatives utilizing a Principles and Parameters approach to the structure, and (2) provide an explication for the semantic constraints on comparative correlatives. With these goals in mind, the present article proposes a revised analysis of copular constructions, critically examining the existing literature, in particular, Hatakeyama (1997), who critiques Moro (1991, 1997). This analysis will then prove useful in the investigation of comparative correlatives.

The organisation of this article is as follows. In section 2, we review Hatakeyama's (1997) analysis of the inverse copula construction, proposing an alternative analysis that uses FinP. In section 3, we extend our FinP analytic framework to clause-internal copula omission in comparative correlatives and then to the omission of the copula in between clauses in comparative correlatives. In section 4, we summarise our arguments and conclude this paper.

2. The Analysis of Inverted Copular Constructions

2.1. Hatakeyama (1997)

2.1.1. The Landing Site: Spec,TP or Spec,CP?

Hatakeyama (1997) generalises his proposal of inverse copular constructions in the following way, with NP_{PRED} denoting the 'predicate nominal' and NP_{SUB}, 'subject nominal'.

(10) $[_{CP}\ NP_{PREDi}\ [_{C'}\ be_j\ [_{TP}\ NP_{SUBk}\ [_{T'}\ t_j\ [_{VP}\ t_k\ [_{V'}\ t_j\ \ t_i]]]]]]]$ (Hatakeyama 1997: 36)

On his hypothesis, the inverted predicate nominal of the inverse copula sentence moves from a VP internal position to the Spec,CP position, whereas the copula moves to C^0 and the NP functioning as a subject in the canonical sentence moves to SpecIP, an analysis closely parallel to Heggie (1988).[4] Notice that *the culprit* in (11a) is a predicate nominal in a canonical sentence and in (11b), an apparent subject nominal in an inverse copular sentence. His proposed structure for (11a) is illustrated in (12), using the updated TP projection, instead of IP (Hatakeyama 1997: 26).

(11) a. John is the culprit.
b. The culprit is John.

(12) $[_{CP}$ The culprit$_i$ $[_{C'}$ is$_j$ $[_{TP}$ John$_k$ $[_{T'}\ t_j\ [_{VP}\ t_k\ [_{V'}\ t_j\ \ t_i]]]]]]$

[3] Our thanks to Marcel den Dikken (pc) for the sentence in (9c).

[4] Hatakeyama (1997: fn. 1) acknowledges that the terms 'canonical sentences' as in (11a) and 'inverse copula sentences' as in (11b) date back to Moro (1991) but they can also in fact be traced back to Moro (1987; 1988) and Heggie (1988).

Hatakeyama's hypothesis is that the derivation of inverse copular sentences is equivalent to matrix *wh*-questions 'in a crucial point' (Hatakeyama 1997: 36), as illustrated below.

(13) a. $[_{CP}$ who$_i$ $[_{C'}$ are$_j$ $[_{TP}$ you$_k$ $[_{T'}$ t_j $[_{VP}$ t_k $[_{V'}$ t_j $t_i]]]]]]$?
b. $[_{CP}$ what$_i$ $[_{C'}$ is$_j$ $[_{TP}$ this$_k$ $[_{T'}$ t_j $[_{VP}$ t_k $[_{V'}$ t_j $t_i]]]]]]$?

The 'crucial point' to which he refers is that the 'fronted predicate nominal' is an operator, which triggers Head-Movement of the copula from T^0 to C^0. The problem with this assumption will be considered below.

One of the central theses of Hatakeyama's analysis is that the landing site of the moved predicate-nominal is Spec,CP, and in this respect is on a par with the analysis in Heggie (1988), which triggered a range of criticisms. [5] One piece of counterevidence against the inverted-nominal-Spec-CP hypothesis is the following sentence in (14).

(14) Is [the best man] [John or Bill]?

It should be noted, however, that the base sentence for (14) without the subject-auxiliary inversion can also be interpreted as an equative sentence, rather than a specificational sentence.

(15) a. The best man is John.
b. The best man is John or Bill.
c. John or Bill is the best man for the job.

It is a striking fact about these sentences that *the best man* may be referential, as in the "best man" at a wedding, or specificational/predicational, as in "the best man for the job". Thus, in order to make it explicit that a relevant sentence is a genuine inverse copular construction, and not an apparent predicational sentence, we have to give an appropriate context. When context is carefully controlled for, these copular sentences resist embedding. Consider the following:

(16) Speaker A: We need to talk to John about that job he made a bid on.
Speaker B: Who is John?
Speaker A: (We all know that) the culprit/best man (*?for the job) is John.[6]

The exchange in (16) is only felicitous under the wedding scenario, a fact that suggests that the fronted predicate *the best man for the job* is not the subject, but rather specificational, landing above the canonical subject position. On the reading where *the best man/the culprit* is the subject, we have in fact an equative sentence (Heycock & Kroch 1998).[7] These data thus undermine the plausibility of the TP hypothesis (i.e. the hypothesis that the predicate nominal always moves to Spec-TP, as in Moro (1991, 1997)), at least for English.

These data can be further elucidated with the following sentences in (17).

(17) a. So beautiful is she that you'll easily be able to pick her out.
b. So beautiful an actress is she that you'll easily be able to pick her out.
c. ??I know that so beautiful an actress is she that you'll easily be able to pick her out.

[5] We are grateful to Marcel den Dikken (pc) and Andrea Moro (pc) for making this observation.
[6] Our thanks to Chris Cummins (pc) and Peter Sells (pc) for their judgements.
[7] See Heggie (1988b, 1989) for further arguments on the identification of specificational copular sentences.

d. *?I wonder whether so beautiful an actress is she that you'll easily be able to pick her out.

Here we have a fronted predicative adjective in a copular sentence, an element that we would not expect to find in Spec,TP, but Spec,CP. Again we find a degradation of acceptability in the embedded contexts.

A further piece of evidence in support of the Spec,CP hypothesis promoted in Heggie (1988) and Hatakeyama (1997) concerns the following data in (18a). The sentence in (18a) and the corresponding analysis in (18b) are due to Hatakeyama (ibid: 38-9).

(18) a. *Two good doctors seem to be John and Mary.
b. [$_{TP}$ two good doctors$_i$ [$_{T'}$ T^0 … [$_{CP}$ t_i [$_{C'}$ be$_j$ [$_{TP}$ John and Mary t_j t_i]]]]]

Hatakeyama ascribes the ungrammaticality of (18a,b) to Improper Movement, that is, A'-Movement to Spec,CP, followed by A-Movement to Spec,TP. While this account provides a rationale for the ungrammaticality of (18a), it should be noted that the definite predicate nominal with the definite determiner *the* makes the sentence grammatical and *do*-support also improves the sentence slightly, in (19b).[8]

(19) a. The two good doctors/best doctors for the job seem to be John and Mary.
b. ??Two good doctors DO seem to be John and Mary.
c. The two good doctors DO seem to be John and Mary.

Since the derivation of the sentences in (19) should be the same as that of (18), the difference in grammaticality must be attributed to the quantificational force of *two* in (18). Note that indefinites are also unable to appear is this construction.

(20) a. Two good doctors are John Smith and Mary Woods.
b. A good doctor is John Smith.
c. A *good/?GOOD doctor seems to be John Smith.

Thus, we note that inverted predicates that do not have the ability to be re-interpreted as referring expressions may not undergo A-movement to Spec,TP in a higher clause, a position reserved for referring expressions.[9] However, when a strong focus in applied to the fronted predicate, the sentence improves in grammaticality, suggesting that the element is now in a focused position. If *two good doctors* were to move to Spec,TP, it would be subject to Improper Movement as described

[8] Marcel den Dikken (pc) notes that emphatic *do* in (19b) shifts this focus away from the postcopular subject, creating a "verum" focus construction. He also suggests that since genuine copular inversion constructions must have focus on the postcopular subject, the fact that emphatic *do* in (19b) shifts focus away from the postcopular subject strongly suggests that (19b) is not a run-of-the-mill copular inversion construction.

[9] Hatakeyama (1997: fn. 6) makes reference to Mahajan's (1992) argument of only the definite constituent being able to sit in Spec,AgrOP and to Jonas & Bobaljik's (1993) same line of argument on the position of Spec,AgrSP. With these arguments, Hatakeyama eliminates the possibility of the predicate raising to Spec, IP [i.e., Spec,TP] in

(i) *John is the culprit / The culprit is John.*
(ii) *John and Mary are two good doctors / Two good doctors are John and Mary*.

above, but if the landing site of the constituent alternatively should be Spec,CP, as in (21) below, the focused element will gain interpretation.

(21) [$_{CP/FinP}$ The two good doctors$_i$ C^0/Fin^0 [$_{TP}$ [$_{T'}$ T^0 … [$_{CP}$ t_i [$_{C'}$ be$_j$ [$_{TP}$ John and Mary t_j t_i]]]]]]

Notice that we will elaborate this direction of research by arguing that the moved NP is specifically in Spec, FinP as opposed to Spec,CP. This line of reasoning builds on the analysis of comparative correlatives for Japanese and English in Tagawa & Iwasaki (2012).

Thus far, we have examined Hatakeyama's argument that the landing site of the predicate nominal is Spec,CP, not Spec,TP, and we have confirmed three pieces of supportive evidence.

2.1.2. Some Failed Rationales in Hatakeyama (1997)

Having determined to support Hatakeyama's argument of the landing site being Spec-CP, we now turn to look at some other aspects of his analysis that we do not adopt. The first point is concerned with Hatakeyama's claim that non-operator nominals cannot bring about auxiliary-inversion. He begins this line of argumentation by demonstrating that movement of a predicate nominal in copular sentences does not trigger crossover effects.

(22) An optimist$_i$/an American$_i$/a pest$_i$, his$_i$ friends all consider John to be t_i.

Hatakeyama then provides the following contrast.

(23) a. John is an optimist/an American/a pest.
b. *An optimist/an American/a pest is John.
(Hatakeyama 1997: 37)

Thus, it seems to follow from this claim that an operator-like nominal is required to make it possible for the auxiliary (or the copula) to move to C^0.

This assumption is, however, dubious given that some operator expressions cannot automatically trigger the subject-auxiliary inversion. As argued in (Radford 2009), negation expressions contain operators and, therefore, according to Hatakeyama, should automatically allow for inverse copular sentences. Yet, this is not the case, as illustrated below in (24).

(24) a. Mike is nothing.
b. *Nothing is Mike.[10]

Moreover, sentences such as (20b) above or, *An excellent doctor is Brian,* cited in den Dikken (2006:91), cast further doubt upon the plausibility of Hatakeyama's claim that an operator is required as a trigger of the auxiliary/copula inversion.

A further piece of counterevidence against Hatakeyama's claim that fronted NPs must contain operators comes from the empirical observation that his very pivotal example sentence itself seems not to have an operator predicate nominal.

(25) [$_{CP}$ The culprit$_i$ [$_{C'}$ is$_j$ [$_{TP}$ John$_k$ [$_{T'}$ t_j [$_{VP}$ t_k [$_{V'}$ t_j t_i]]]]] (=(3))

Hatakeyama (2004: p. 204, fn. 8) deals with this problem by claiming that the predicate nominal *the*

[10] This is ungrammatical on the inverse copula sentence reading (Chris Cummins, pc).

culprit has an "*iota*-operator", following Guéron (1994). We accept that the semantics of definite descriptors contain an operator of this sort, but fail to see how this type of operator would force Subject-Aux Inversion (SAI). It is fairly obvious that a DP such as *the culprit* is not an operator for the reason that it is not subject to any crossover effects in (25). Moreover, if definite descriptors were to always trigger SAI, English sentences such as *The policemen saw the culprit* would necessarily be rendered as **The culprit did the policemen see*, when, in fact, contrastive fronting allows for sentences such as *The culprit, he saw, NOT the victim.*

The second highly debatable assumption in Hatakeyama's hypothesis is that he adopts Ormazabal's (1994) claim that the complement of the ECM verbs is not a TP but a CP. This approach allows him to defend his hypothesis that predicates in inverse copula sentences land in CP, not TP. Hatakeyama presumably would like to give a unitary account of both the inverse copula sentence structure in (10) and the complement of the ECM, which has well-known properties similar to inverse copula sentences (cf. den Dikken (2006), among many others). However, the idea that the complement of ECM verbs is a CP is, as Hatakeyama himself admits, 'contrary to the generally accepted position' (1997:41). Therefore, to the extent that Ormazabal's analysis is weak, any analysis relying upon Ormazabal will also be weak. Hence, we will not adopt Hatakeyama's approach to ECM verbs.

The third problematical ingredient in Hatakeyama's theory is that his solution to embedded inverse copula sentences necessarily leads to a lack of available functional heads to receive the fronted predicate and verb plus the complementizer, as in (26a) below.

(26) a. I believe that the problem is John.
b. The problem may be John.
c. I consider the culprit to be John.

The quintessential point here is that there is a shortage of functional heads that reasonably accommodate the relevant elements. As he suggests, there is no syntactic position for *that* in (26a), for either *may* or *be* in (26b), and for *to* or *be* in (26c) (although the sentence in (26c) is related to the larger question of ECM constructions (e.g., *I consider John to be the culprit*)).

Hatakeyama attempts to solve these problems by splitting the CP as follows. He uses the two features [±wh] and [±Op], and their combinations.[11]

(27) $[_{CP1}\ XP_{[+wh,\ -Op]}\ C1^0\ [_{CP2}\ YP_{[-wh,\ -Op]}\ C2^0\ \ [_{CP3}\ ZP_{[-wh,\ +Op]}\ C3^0\ [_{CP4}\ WP_{[+wh,\ +Op]}\ ]]]]$

One fundamental problem with this approach is that he offers no account for why XP, YP, ZP, and WP are ordered in this way but not others; in other words, there is no principled reason for why [+wh, -Op], [-wh, -Op], [-wh, +Op]. [+wh, +Op] are ordered in this particular hierarchy, other than to accommodate the facts. Moreover, even supposing that this Split-CP hypothesis is maintainable, his claim that *may* in (26b) and *to* in (26c) must move to $C3^0$ and that *be* in (26b, c) moves to $C4^0$ is highly dubious. Were these derivations possible, it would be schematised as follows. (Hatakeyama assumes that the predicate nominals move to Spec,CP3 in this case.)

(28) a. $[_{CP3}$ The problem$_1$ $[_{C3'}$ may$_2$ $[_{CP4}$ be$_3$ $[_{C4}$ $[_{TP}$ John$_4$ $[_{T'}$ t_2 $[_{VP}$ t_4 $[_{V'}$ t_3 $t_1]]]]]]]$
b. I consider $[_{CP3}$ the culprit $_1$ $[_{C3'}$ to$_2$ $[_{CP4}$ be$_3$ $[_{C4}$ $[_{TP}$ John$_4$ $[_{T'}$ t_2 $[_{VP}$ t_4 $[_{V'}$ t_3 $t_1]]]]]]]$

[11] Hatakeyama's version of the Split-CP hypothesis is independent of the linguists' school of thought dubbed 'Cartography Approach' mostly led by Italian linguists represented by Rizzi (1997) as Hatakeyama's version of the Split-CP hypothesis is not concerned with pragmatic factors, restricting its scope only to abstract features such as [+/- wh] and [+/- Operator].

The movement of *may/to* to Spec,CP3 is, however, in violation of the Phase Impenetrability Condition (e.g. Chomsky 2008) if each of the CPs illustrated above is a Phase. Let us make the natural assumption that there is a *v*P immediately above the VP and that the verb *be* undergoes Head-Movement from V^0 to v^0.

(29) a. [$_{CP3}$ The problem$_1$ [$_{C3'}$ may$_2$ [$_{CP4}$ [$_{C4}$ **be$_3$**][$_{TP}$ John$_4$ [$_{T'}$ t_2 [$_{vP}$ ***t*$_3$** [$_{VP}$ t_4 [$_{V'}$ ***t*$_3$** t_1]]]]]]]]
b. I consider [$_{CP3}$ the culprit $_1$ [$_{C3'}$ to$_2$ [$_{CP4}$ [$_{C4}$ **be$_3$**][$_{TP}$ John$_4$ [$_{T'}$ t_2 [$_{vP}$ ***t*$_3$** [$_{VP}$ t_4 [$_{V'}$ ***t*$_3$** t_1]]]]]]]]

Since V^0 is within the domain of the phase head, v^0 (with its external argument, *John*) is to be transferred to phonological and semantic components, and hence cannot move outside of the phase. That is, *be* cannot move from V^0 to outside of *v**P because of the Phase Impenetrability Condition, creating another issue for Hatakeyama's analysis.

One last piece of counterevidence that we will offer comes from data that generates more than four elements that need accommodation in the extended CP, as seen below.

(30) I think **that** the problem **seems to have been** John.[12]

Even if Hatakeyama were on the right track in regard to his explanation of the data in (26b, c), the same logic would never hold for the sentence in (30), given that the number of projections and heads in his version of the Split-CP rule is limited to four, and he therefore cannot accommodate the five heads shown above, for obvious reasons.

2.2. An Alternative Hypothesis

2.2.1. A Proposed Derivation

In the previous subsection 2.1, we have supported and adopted Hatakeyama's argument on the landing site of the predicate nominal: Spec,CP, not Spec,TP, but have abandoned his claims on the predicate nominal as an operator, that the complement clause of the ECM is a CP, and his version of the Split-CP hypothesis with two features of [wh] and [Op]. Instead, we will amend Hatakeyama's analysis, maintaining his landing-site hypothesis only. Specifically, we will replace the CP projection with the Finiteness Projection (FinP), a move that will prove useful in accounting for tense and agreement. In addition, the small clause hypothesis argued by Heggie (1988) and Moro (1991) will remain a viable perspective, capturing the intuition that predication is primary in these structures. Specifically, we will adopt den Dikken's (2006) analysis for predication, a functional head analysis.

We thus obtain the following structure in which the relevant Functional Projection (FP) is defined as a Relater Phrase whose head is the RELATOR of Den Dikken (2006, 2008). We make the claim that the subject nominal is in the specifier position of the Relater Phrase, and the predicate nominal, which is the complement, moves into a higher specifier position.[13]

(31) (a) [$_{XP}$ [$_{FinP}$ [$_{Fin}$] [$_{TP}$ [$_{T}$ is$_2$] [$_{RP}$ John$_3$ [F^0 (=RELATOR) [the culprit$_1$]]]]]]
(b) [$_{XP}$ The culprit$_1$ [$_{FinP}$ t_1 [$_{Fin}$ is$_2$+RELATOR] [$_{TP}$ John$_3$ [$_{T}$ t_2] [$_{RP}$ t_3 F^0 t_1]]]]

We hypothesize that XP here is a higher projection, including the possibility of FocP, as in Rizzi

[12] This sentence is the inverse of *I think that John seems to have been the problem* (Chris Cummins, pc).

[13] See section 3.2 for a more elaborated potential structure.

(1997). We inherit from Hatakeyama the idea that the landing site of the predicate nominal is above Spec,TP but our hypothesis in (31) distinguishes itself from Hatakeyama's in that we will adopt the insights from Haegeman (1996b: 145) and Cardinaletti (2009: 25), who argue independently that the Spec-Head relation of Spec, FinP and Fin^0 allows for wh-elements moving through Spec, FinP to Spec, FocP with the auxiliary landing in Fin^0 to license agreement of the auxiliary with the subject.[14] Below we will examine the supporting evidence, which will lead us to the conclusion that this is a viable alternative analysis of the inverse copula construction, and a useful step for the analysis of comparative correlatives.

2.2.2. The Predicate Nominal of Inverse Copula Sentences in English

The proposal in (31) is motivated primarily on the basis of the semantic nature of FinP. Arguably this projection is closely related to whether the event has been realised or not (cf. Stowell (1982); Adger (2007); Roberts (2005)). With this in mind, the distinction made by Diesing (1992) on stage-level and individual-level readings proves relevant. Diesing observes that the stage-level readings 'typically corresponds to temporary states' and individual-level readings 'roughly correspond to more or less permanent states'. Her claim is that there is a correspondence between syntactic positions and positions at the level of logical representations such as LF. The point for our present concern is that the subjects whose predicates are representative of 'permanent states' such as genericity should be located in a higher position in syntactic trees/diagrams than the subjects whose subjects are concerned with 'temporary states'. The following is her formulation on this issue for bare plural subjects.

(32) *LF representation of bare plural subjects*

> Subjects of stage-level predicates can appear either in [Spec, IP] or in [Spec, VP]. Subjects of individual-level predicates can appear only in [Spec, IP].
>
> (Diesing 1992: 22)

This principle is written as a constraint on LF-representation, but in the spirit of creating a more transparent syntax, we suggest that there is a viable way to revise her hypothesis and maintain its crucial parallelism. Let us therefore posit as a working hypothesis that the bare-plural subject of stage-level predicates is in Spec,TP and the bare-plural subject of the individual-level predicate is in Spec, FinP.[15] The generalization to be captured here is that the subject of an individual-level predicate is located in a higher position in syntax than its counterpart for a stage-level predicate, and we conjecture that this distinction can be extended to nominals in general, including predicate nominals of inverse copula sentences, occupying *prima facie* subject positions. Thus, we revise Diesing's formulation in (32) as (33) below.

(33) *Syntactic representation of subjects*

> Subjects of stage-level predicates can appear in [Spec,TP]. Subjects of individual-level predicates can appear only in [Spec, FinP].

---

[14] Haegeman (2012) now argues that only operator constituents move through SpecFinP; others directly go to the landing-site.

[15] The same line of reasoning would be appropriate for subjects of *Tough*-Constructions, i.e., the subject of *Tough*-Constructions has to be definite. (Postal 1971, Lasnik & Fiengo 1974).

*(i) *A bunch of bananas was a pleasure to eat; there are their skins.* (Lasnik & Fiengo 1974: 546)

If we suppose that the subject of *Tough*-Construction must be in Spec-FinP, then the same line of argument in the text holds here but a precise spell-out is put aside for future research.

This gives us the insight that the generic subject (be it definite or indefinite) can be located in SpecFinP because it involves an individual reading.[16]

The above working hypothesis that the distinction regarding the syntactic hierarchy is applicable to all nominals is supported by empirical data in Japanese. Taking into account our analysis of the inverse copula, this working hypothesis provides an account of Japanese copula constructions. Hatakeyama (2004: 165-6) maintains that his hypothesis of the inverse copula construction can account for the (syntactic) parallel between the English inverse copula construction and the Japanese counterpart. The following is his Japanese example.

(34) a. Taroo-ga hannin da
Taro-NOM. culprit COP
'Taro is a culprit.'
b. Hannin-wa Taroo da
Hannin-TOP. Taroo COP
[English glosses and translation added to the original]

Hatakeyama maintains that (34b) is an inverse copula sentence of the canonical counterpart, (34a). He also observes that when the *wa* attached to the subject nominal in the inverse copula sentence is replaced with *ga*, the sentence is ungrammatical.

(35) *Hannin-ga Taroo da
Hannin-NOM. Taroo COP

Hatakeyama argues that this shows that while both the subject nominal of the inverse copula sentence and the predicate nominal of the inverse copula sentence are *prima facie* in the top sentential positions, they differ in nature. He adds that, given the generally accepted idea that NP-*ga* is licensed in Spec, IP and that NP-*wa* is located above IP, the hypothesis that NP-*wa* is licensed in Spec,CP would lead us to treat the Japanese inverse copula sentence and the English counterpart in a uniform fashion. Recall that Hatakeyama's hypothesis is in (10), which is repeated here as (36) below. The probable structures for Japanese are in (37) below.

(36) $[_{CP}\ NP_{PREDi}\ [_{C'}\ be_j\ [_{TP}\ NP_{SUBk}\ [_{T'}\ t_j\ [_{VP}\ t_k\ [_{V'}\ t_j\ \ t_i]]]]]]$ (Hatakeyama 1997: 36)

(37) a. $[_{CP}\ NP_{PRED}\text{-}wa_i \quad [_{TP}\ NP_{SUBk}\ \boldsymbol{t_i} \quad da]]$ (Inverse Copula sentences)
b. $[_{CP} \quad [_{TP}\ NP_{SUBk}\text{-}ga \quad NP_{PRED} \quad da]]$ (Canonical Sentence)

Let us revise Hatakeyama's model of the Japanese inverse copula sentence in the same way as we have done for English. Recall the following is our hypothesis from (31), repeated here as (38).

(38) $[_{XP}$ The culprit$_1$ $[_{FinP}\ t_1\ [_{Fin}$ is$_2]$ $[_{TP}$ John$_3$ $[_T\ t_2\ ]$ $[_{FP}\ t_3\ F^0\ t_1\ ]]]]$

We will posit the finiteness projection in Japanese, as shown in (39b).[17] That is, our central thesis

[16] As Peter Sells (pc) suggests, (33) is potentially a very radical proposal, having 'implications throughout the syntax'. It could be worthwhile to investigate this in depth in future research but at present, it remains a working hypothesis. As a working hypothesis, its aim is to tentatively show the distinct syntactic hierarchy between stage-level and individual-level predicates, demonstrated in the analysis of the relevant Japanese data.

[17] This approach is contrary to the general view advanced in generative literature that the syntactic

here is that the NP_{PRED}-*wa* in the Japanese inverse copula is in Spec, FinP as in (39a) (or further moves to Spec, TopP or Spec, FocP via Spec, FinP[18] as in (39b)).[19]

(39) a. [$_{FinP}$ Hannin-wa$_1$ Fin^0 [$_{TP}$ Taroo$_2$ [$_{FP}$ t_2 t_1 F^0] T^0] [$_{Fin}$ da]]]]
b. [$_{FocP}$ Hannin-wa$_1$ [$_{FinP}$ t_1 Fin^0 [$_{TP}$ Taroo$_2$ [$_{FP}$ t_2 t_1 F^0] T^0] [$_{Fin}$ da]]]]]

On the assumption that Japanese is a head-final language, if we put *wa* in Top^0 as is generally assumed, we cannot put a nominal in the immediately preceding complement position as it will be occupied by the complement.

(40) *[$_{TopP}$ Taroo [$_{Top'}$ [kanamochi da] [$_{Top}$ wa]]
Spec Complement Head
Taroo the rich COP TOP
'Taro is rich.'

If *wa* is a particle attached to a nominal whose meaning is topic, then there is no problem of this nature.

There is thus a clear symmetry between the English inverse copula in (38) on the one hand and the Japanese counterpart in (39a,b) on the other, based on applying the spirit of Hatakeyama's (2004: 166) analysis. We will thus accept the plausibility of the hypothesis that an inverse copula sentence involves A'-movement to a projection above TP.

2.2.3. Some Solutions to Hatakeyama's Problems

The proposal in (31) (=(38)) also offers a theoretically legitimate solution to the problem in (26), which is repeated here as (41).

(41) a. I believe that the problem is John.
b. The problem may be John.
c. I consider the culprit to be John.

Regarding the problem illustrated in (41a), our account is essentially non-distinct from Hatakeyama's. The higher CP above the FinP can be split into projections, following Rizzi (1997). In the event that *the problem* is in Spec,FocP (or Spec,TopP), we can surmise that the complementiser sits in Force^0.

(42) … [$_{ForceP}$ [$_{Force}$ that] [$_{FocP}$ the problem$_1$ [$_{FinP}$ t_1 [$_{Fin}$ is$_2$] [$_{TP}$ John$_3$ [$_{T}$ t_2] [$_{FP}$ t_3 F^0 t_1]]]]]

Hence, there is no theoretical problem here related to the syntactic position of the complementiser *that*. We will leave the question of the categorial status of *the problem* to a later discussion.

Next, let us consider the case in (41b). On our hypothesis, only one element undergoes Head-Movement; all others remain *in situ*.

---

position of Japanese *wa* is Top^0, but it is quite doubtful that all nouns marked by *wa* are semantically *topic*.

[18] Haegeman (2012) posits direct movement to the higher node without stopping in Spec, FinP.

[19] It may be debatable whether *da* is in Fin^0. Even if this is not correct, it would not affect our central argument here on the position of predicate nominals with *wa*. For an alternative view of the syntactic position of *da*, see Hiraiwa & Ishihara (2002).

(43) [$_{XP}$ The culprit$_1$ [$_{FinP}$ t_1 [$_{Fin}$ may$_2$] [$_{TP}$ [$_T$ t_2] [$_{vP}$ t_1 v^0 [$_{VP}$ [$_V$ be+RELATOR] [$_{FP}$ John [$_{F'}$ F^0 t_1]]]]]]

Following den Dikken (2006), we assume a structure of canonical predication with the RELATOR head (denoted as F^0 above) within a small clause, whose specifier is a subject nominal and whose complement is a predicate nominal. Notice that the predicate nominal moves in a successive cyclic fashion via the edge of the v*P, a phase, whereas *be* base-generates in V^0. Regarding (41c), we put aside for future research whether the complement of the ECM can be accounted for within our FinP framework. A logical step would be to posit the complements of ECM verbs as FinP phrases, where the infinitival marker *to* is in the head of FinP in order to license the fronted predicate nominal.

3. Copula Omissions in Comparative Correlatives

3.1. Clause-*Internal* Copula Omission in Comparative Correlatives

Thus far, we have studied the inverse copula construction through the critical examination of Hatakeyama (1997). We posit the following structure for these sentences.

(43) [$_{XP}$ NP_{PRED1} [$_{FinP}$ t_1 [$_{Fin}$ be$_2$] [$_{TP}$ NP_{SUB3} [$_T$ t_2] [$_{FP}$ t_3 F^0 t_1]]]]

In this section, we argue that the copula omission that is internal to each clause of the comparative correlative can be explained using the structure in (43). The sentence in (8), repeated as (44) below, provides a case in point.

(44) The more difficult the problem **(is)**, the more tired the student **(is)**.

In section 1, we confirmed that the subject of each clause must be non-referential and generic in order for the copula to be dropped in the second clause of the comparative correlative, drawing from McCawley (1988), Culicover & Jackendoff (1999), and Iwasaki & Radford (2009).[20] In (44), the subjects are both generic and non-specific, satisfying the required semantic conditions.

Our major goal in this section is to establish that the copula may be omitted when the copula is found in Fin^0. In order to clarify this parallelism, we will rely upon empirical tests for the second clause, since the first clause does not allow any auxiliary/copula inversion at all, presumably because it is a relative clause (den Dikken 2005; Iwasaki 2010, 2011a). This brings our attention to the second clause. Consider the following data and their respective grammaticality readings.

(45) a. The more I negotiate, [the more stubborn] [Bob and Jim] are.
b. The warmer it is, the busier the bee is.
c. The warmer it is, the busier a bee is.
d. The warmer it is, the busier bees are.

(46) a. ??The more I negotiate, [the more stubborn] **are** [Bob and Jim].
b. The warmer it is, the busier **is** the bee.
c. *The warmer it is, the busier **is** a bee.
d. ??The warmer it is, the busier **are** bees.

The sentences in (45) demonstrate the basic cases, where, without copula movement, these

[20] Similar semantic conditions are confirmed for Japanese in Iwasaki (2012). That is, the relevant subject should be non-specific and definite in Japanese.

sentences pose no issues. Notice, however, that when there is inversion of the subject and copula, the grammaticality of these sentences varies: (46a) is marginal, (46b), grammatical, (46c), marginally ungrammatical, and (46d), slightly better than (46c).[21] Grammaticality seems to correlate with the availability of a generic reading. The most obvious question that arises is why (46c) is ungrammatical, despite its syntactic parallel to the sentence in (9a) earlier in the text. (9a), repeated here as (47), can be considered a generic statement about a range of problems and their conceptual relationship to their solutions (in which their difficulty is correlated with the intractability of their solutions).

(47) The more difficult a problem *(is), the more intractable the solution (is).

By contrast, (46c) seems naturally to take a reading in which you are referring to some specific bee, and reporting on its states under a range of conditions. Thus, it appears that the ungrammaticality of (46c) is due to the non-generic reading of the subject of the second clause, not due to the indefiniteness of the noun.[22] Note that when the indefinite subject can have a generic reading, as in (46b and (47), the sentence is grammatical.

Interestingly, the judgements in (46) appear again when we consider the same sentences minus the copula, as demonstrated below in (48).

(48) a. ??/*The more I negotiate, [the more stubborn] [Bob and Jim].
b. The warmer it is, the busier the bee.
c. *The warmer it is, the busier a bee.[23]
d. ??The warmer it is, the busier bees.

In light of the criteria we have established, (48a) is awkward because of the referentiality of the second clause's subject. On the other hand, (48b) is grammatical since its subject is definite and has a generic reading (Culicover 1999). The ungrammaticality of the sentences in (48c) and (48d) is captured by the generalization that copula omission in comparative correlatives may only take place when the second clause's subject is definite and generic.[24]

Thus, these two sets of data, one with copula inversion, in (46), and one with copula omission, in (48), provide us with parallel grammaticality judgements. We will accordingly suggest that the copula-drop cases in (48) have the same syntactic mechanism as the copula-inversion counterparts in (46).[25] It seems plausible to hypothesize that the only difference between these sentences is whether the copula is overt or not. The syntactic representation for this structure is schematised as follows.

(49) a. …[$_{XP}$ the more stuborn$_1$ [$_{FinP}$ [$_{Fin}$ are$_2$ / ø] [$_{TP}$ Bob and Jim$_3$ [$_T$ t_2] [$_{FP}$ t_3 F^0 t_1]]]]

[21] Thanks to Chris Cummins (pc) and Lucas Sinclair (pc) for these judgements.
[22] Many thanks to this observation provided by Chris Cummins (pc).
[23] One might say that the subject nominal in such focalisation must be definite but this is disconfirmed by:
(i) At no time is the/a need for change more evident than during a crisis. (Chris Cummins, pc)
[24] The reason why (48d) is slightly better than (48c) is put aside for future research.
[25] We have in mind the kind of PF ellipsis in Fin^0 that would occur in the following case:
(i) I want (very much for) him to leave here now.
In the case above, *for* is Fin^0 and undergoes an ellipsis unless an emphatic phrase such as *very much* is added. When there is no need for tense and modality to be explicitly stated, as in infinitival clauses, Fin^0 seems to be able to undergo a PF ellipsis.

b. …[$_{XP}$ the busier$_1$ [$_{FinP}$ [$_{Fin}$ is$_2$ /are$_2$/ ø] [$_{TP}$ {the bee / a bee / bees}$_3$ [$_T$ t_2] [$_{FP}$ t_3 F^0 t_1]]]]

If the subject is non-referential and definite, i.e., generic, the sentence that includes such subjects may be non-finite. That is, as the generic is concerned with the generalisation of some entity, there is no need for instantiation of tense and modality to be explicitly represented at PF in order to attain Full Interpretation. We may thus explain why PF ellipsis may occur in Fin^0. Following Chomsky's (2008) suggestion that "Agree- and Tense-features are inherited from C, the phase head,…," we will assume that this C^0 is in fact Fin^0. For instance, consider:

(50) Italians (are) cheerful.

In the generic reading, we lose nothing in the semantics if the copula is dropped. There is thus no need for tense to be explicitly stated, and the default tense, the present tense, is obviously expected in English. We will thus hypothesize that, in generics, the PF ellipsis of the copula in Fin^0 is permitted. In sum, the subject's property of being non-referential and generic *can* (but not *must*) provide nonfiniteness of the FinP.[26]

With the analysis in (43), let us examine a potential criticism here. Abeillé & Borsley (2008: 1142) suggests, on the basis of the observation of Culicover & Jackendoff (1999), that there are four conditions where the copula drop under discussion is realised:[27]

(51) a. Its complement is fronted.
b. It is the highest verbal element in the clause.
c. *that* is not present.
d. the subject has a non-specific interpretation.

We have already argued the condition in (51d). In addition, the condition in (51a) is always satisfied in inverse copular sentences. Thus, we should address the conditions in (51b, c) here. The following is also from Borsley (2011), based on Abeillé & Borsley (2008). (See also Iwasaki (2008).)

(52) The more intelligent the students, the better the marks.

(53) a. *The more intelligent the students, the more marks given.[28]
b. *The more intelligent the students, the better the marks will.
c. *The more intelligent the students, the better it seems the marks.
d. *The more intelligent that the students, the better that the marks.

---

[26] Regarding the first clause of the comparative correlative, it may be possible to assume that the copula can move to Fin^0 at LF, but it cannot become overt at PF.

*(i) The more difficult (*is) the problem, ….*

This is due to the fact that conditionals and relatives do not allow such an inversion at PF.

*(ii) {No matter whether / If} (*should) she come, I would be happy.*

[27] However, the following seems to be an exceptional case to these conditions.

*(i) The more students there *(are), the more nuisance there is.* [*there*: an expletive, not a locative]

[28] Chris Cummins (pc) considers (53a) to be grammatical, contra Abeillé & Borsley, suggesting that it has a collective reading, i.e. 'The greater the intelligence of the group of students, the greater the number of marks awarded by the markers to members of the group in total' (or '...the more times the action of 'awarding a mark' takes place'). On this reading, the subject nominal might move to Spec,FinP, and the copula, Fin^0, but we will not argue any more in depth about this here.

e. *The more intelligent students, the more pleased we.

Regarding (53a), the EPP requires T^0 to have a subject, so a plausible analysis is that *the more marks* moves and remains in Spec,TP, without further moving to Spec,CP, resulting in the structure below.

(54) …[$_{XP}$ [$_{FinP}$ [$_{Fin}$ ø] [$_{TP}$ the more marks$_2$ [$_T$ (are)$_1$] [$_{FP}$ t_2 F^0 given]]]]

Thus, the copula has to be in T^0 if the syntactic hierarchy in (54) is to be maintained. Since the copula is not in Fin^0, it would not delete, and the result is compatible with our hypothesis. Regarding (53b), on our hypothesis, *will,* not *be,* should move to Fin^0 but *will* has a tense and arguably a modality and thus must remain in T^0, and cannot move and undergo PF ellipsis, giving us the structure in (55). The sentence is thus without an appropriate linking verb for the predication.

(55) …[$_{XP}$ the better$_1$ [$_{FinP}$ [$_{Fin}$] [$_{TP}$ the marks$_3$ [$_T$ will$_2$] [$_{FP}$ t_3 F^0 t_1]]]]

Regarding (53c), if *it seems* is not simply an inserted expression, it usually selects a CP complement. It seems natural to assume that the subsequent clause in this case is a CP, which we will denote as CP_2 below. This CP_2 would be a ForceP if we follow the Split-CP hypothesis of Rizzi.

(56) …[$_{CP1}$ the better$_1$ [$_{TP}$ it seems [$_{CP2(=ForceP)}$ $C2^0$(=$Force^0$) [$_{TP}$ the marks$_2$ [$_T$ are] [$_{FP}$ t_2 F^0 t_1]]]][29]

Since the head of C_2 is already occupied by a covert complementiser, the copula cannot land in that position and thus the copula cannot be deleted. The same argument holds for (53d), if we make the natural assumption that *that* is a complementiser here.

Regarding (53e), as Chris Cummins (pc) suggests, it is ambiguous between an expression of degree (modifying *intelligent*) and one of quantity (modifying *students*), and this results in being marginally ungrammatical. Moreover, the subject of the second clause has a specific reference, violating the condition in (51d). We are thus able to account for all of the requirements listed in the generalization in (51).

To summarize our analysis to this point, we have argued that when the copula appears in Fin^0, it may be deleted when the subject is generic. In other words, the copula is in complementary distribution with a generic operator that may appear in Fin^0.

3.2. Copula Omission in between Clauses in Comparative Correlatives

3.2.1. Jamaican English

Thus far, we have described copula drop within the second clause of comparative correlatives via a FinP analysis. We now turn our attention to the larger construct, where we noted earlier an unexpected variation in a certain dialect of English. Specifically, we observed that Jamaican English (JE) allows an overt copula in between the two clauses of a comparative correlative, as illustrated in (3), repeated below as (57) (Iwasaki 2008, 2011a, 2011b).

(57) a. …and the more you have **is** the more expenditures they are using on the ground so….
[Minister of Tourism of Jamaica in the interview of *The Jamaica Observer*]

b. "the more the economy grows**, is** the better it is for all of us. …".
[A corporation's President in Jamaica's Government Page]

[29] For a similar but not the same analysis, see Iwasaki (2008).

c. …the quicker we are able to get your transactions out of the titles office**, is** the more that persons will come in,…. [Jamaica's Government Page]
d. …the less you consume **is** the less you will spend and the more you will be able to save. [Jamaica's Government Page]
e. The more you think you learn **is** the more there is to learn. [*Jamaica Gleaner*]

This copula appears to act as a linker between the two clauses, and may even carry the past tense, exhibiting a tense harmony effect, as in (58e,f).[30]

(58) a. The more chocolate Bob eats //is// the quicker he puts on weight.
b. The more chocolate a person eats //is//the quicker he or she puts on weight.
c. The more chocolate Bob ate //was// the quicker he put on weight.
d. The more chocolate you ate //was// the quicker you put on weight.
e. *The more chocolate Bob ate //is// the quicker he put on weight.
f. *The more chocolate you ate //is// the quicker you put on weight.

An interesting caveat must be made, however, for these sentences. It seems that the choice of copula is conditioned by the status of the subject and the time reference of the message. The non-overt copula is always available, just as it is in Standard English, for the rendering of universal truths, i.e. generic sentences. In addition, in the present tense, the copula may appear in generic truths as well, as in (58b). On the other hand, when the subject is referential and specific, and the sentence is targeting an event in a specific time frame, be it present or past, as in (58a,c,d), the copula must surface. That is, the sentences in (58a,b,c) must refer to a specific person at a specific time; no generic reading is possible. If the sentence in (58a) did not have the copula, it would just be a general statement about Bob.[31] The result of this state of affairs is that generic statements may result in a covert copula between the two clauses, a fact reminiscent of our discussion in 3.1 for the second clause in comparative correlatives, where the copula in the second clause may be omitted when the subject is generic and the copula is in Fin^0.

An additional fact that supports the analysis of this copula as a Linker in Fin^0 is that these sentences do not license yes/no questions.

(59) a. The more John eats is the happier he will become.
b. *Is the more John eats the happier he will become?

These data thus indicate the non-availability of any position to which the copula might raise in order to create inversion. We shall now turn to this deeper question of the underlying structure of comparative correlatives.

3.2.2. Predication in Comparative Correlatives

In this section, we will connect two supposedly different constructions: the comparative correlative and the construction represented as follows:

[30] Further work is needed on JE data. Data regarding tag-questions and the distribution of subjunctive in JE have not sufficiently converged to make strong conclusions. Regarding negation and the past tense, since we have adopted Tagawa & Iwasaki's (2012) analysis that utilizes FinP, the copula in Fin^0 would not be affected overtly by negation. See Tagawa & Iwasaki (2011; 2012) for further issues related to the past tense.

[31] Our thanks to Alison Irvine for relevant discussion and suggestions.

(60) We become happier, the more we eat.

This construction has been largely neglected in generative literature, except for some consideration in (e.g. Culicover & Jackendoff 1999) as CC' constructions, and sketches in McCawley (1988) and Borsley (2004). Following this earlier literature, we will call this construction the "reversed comparative correlative."

The major purpose of the present subsection is to show that the comparative correlative derives from the reversed comparative correlative, out of a small clause, predication structure.[32] In particular, we argue that the comparative correlative that is derived from the reversed comparative correlative has a structure parallel to 'indefinite nominal + copula + definite nominal' which den Dikken (2006) labels a "reverse predication."[33/34] The following sentences illustrate this type of sentence.

(60) a. An excellent doctor is Brian.
b. Examples of this are the Vietnam War and the Gulf War. (den Dikken, 2006:91)

(61) a. Delinquency is a major problem in today's society; also a big problem are/*is factory closings and fascist propaganda. (den Dikken, 2006:154)
b. A case in point are/*is their remarks about passive sentences.[35]

(62) A big problem is the fascist propaganda. (den Dikken, 2006:158)

Den Dikken (2006: 156-7) observes that these sentences resist copula inversion in the same way as Specificational Pseudoclefts Type A of den Dikken et al. (2000).[36] The following are his examples.

(63) a. *Are a big problem the factory closings?[37]
b. *Was what nobody brought any wine? (Specificational Pseudocleft Type A)

As a structural solution, den Dikken (2006: 158) suggests that this type of sentence, the Specificational Pseudocleft Type A, contains a base-generated topic for the precopular noun phrase and this topic is then linked to a null pro-predicate that has been raised to Spec,TP from the predicate position projected by the RELATOR. It thus has a parallel structure to the Locative Inversion constructions in that 'the subject surfaces in postcopular position, and the precopular

[32] See Iwasaki (2008) for the archetype of this idea and Borsley's cited comment there.

[33] Den Dikken contrasts these with the following type of copula inversion sentence:
*(i) The biggest problem is/*are the factory closings.* (p. 154)
As den Dikken acknowledges, the difference is pointed out and argued by Heycock (1998) [cf. Heycock & Kroch (1998)].

[34] Most of the argument developed by den Dikken (2006) proceeds on the assumption that inverse and equative copular sentences are den Dikken et al.'s (2000) Specificational Pseudocleft 'Type B', which is mostly characterised by its reversibility between the pre-copular and post-copular constituents. (Note that 'Type A' does not share this property.) cf. den Dikken (2006: 73).

[35] Chris Cummins (pc) casts doubt upon this agreement in number, suggesting that there is a very strong tendency to agree in number with the preceding NP, whatever it is.

[36] Den Dikken also discusses embeddability (p. 156-7).

[37] This suggests that the copula in this type of sentence cannot move from T^0 to Fin^0. Hence, these sentences cannot allow the copula omission that we discussed in section 3.1.
*(i) The bigger a problem *(is) the factory closings, the more employees would be dismissed.*

subject position is apparently empty'. His analysis culminates in the following syntactic structure.[38]

(64) [$_{TopP}$ [$_{DP}$ a big problem]$_i$ [Top^0 [$_{TP}$ [$_{PP}$ PRO-PREDICATE]$_i$ T^0… [$_{RP}$ the fascist propaganda [$_{R'}$ [RELATOR^0] t_i]]]]]

As argued for in Iwasaki (2011a, 2011b), comparative correlatives are a type of Specificational Pseudocleft Type A.[39] As an enhancement, Tagawa & Iwasaki (2012) argue that den Dikken et al.'s (2000) specificational pseudocleft 'Type A' analysis can be revised using FinP and that these same arguments may be applied to the English comparative correlative in their analysis, as illustrated in (65).[40]

(65) a. [$_{CP}$ [What Mary didn't buy]$_1$ C **[$_{FinP}$ [$_{Fin}$ was$_2$]** [$_{TP}$ [~~what Mary didn't buy~~]$_1$ [$_T$ t_2] [$_{VP}$ t_1 V^0 [$_{CP}$ [$_C$ (that)] ~~she didn't buy~~ any wine]]]**]**].

b. [$_{CP1}$ **[The more (that) you eat)]$_1$** C1 [$_{FinP}$ [$_{Fin}$ **BE$_2$**] [$_{TP}$ **[~~the more (that) you eat~~]$_1$** [$_T$ ***t*$_2$**] [$_{VP}$ ***t*$_1$** V^0 [$_{CP2}$ the less [$_{C2}$ (that)] you want]]]]].

(Tagawa & Iwasaki 2012: 74)

Notice that Tagawa & Iwasaki's argument is that because of the 'in parallel' probes (Chomsky 2008), the first clause moves to both Spec,CP (i.e., SpecTopP in (64) and Spec,TP, with only the hierarchically higher constituents being phonologically realised. If we incorporate this revised FinP analysis to den Dikken's TopP analysis in (64), without adopting the simultaneous probes but with the DP-base-generation approach of Topic of den Dikken, we then obtain the following structure.[41]

(66) [$_{TopP}$ [$_{DP}$ a big problem]$_i$ [Top^0 **[$_{FinP}$ [$_{Fin}$ was$_2$]**[$_{TP}$ [$_{PP}$ PRO-PREDICATE]$_i$ [$_T$ t_2]… [$_{RP}$ the fascist propaganda [$_{R'}$ [RELATOR^0] t_i]]]]]

This structure is compatible with our hypothesis for the syntax of the inverse copula construction in section 2.2, with the two major arguments, i.e., the Spec,CP-landing-site issue and the Small Clause issue, being accounted for. The structure might be called a 'pseudo-inverse copular construction' because the DP is base-generated in the left periphery.

We are now in a position to demonstrate that the comparative correlative has a parallel

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[38] Den Dikken finds this in syntactic parallel to the Locative Inversion constructions. A further support of this idea comes from the following.

*(i) *Such an excellent doctor is Brian.*

This is ungrammatical with the sense that "Brian is a doctor possessing a remarkable degree of excellence", although it could still mean "Brian is an example of a doctor who is excellent (thus meeting the criteria that we were discussing in the preceding context)" (Chris Cummins, pc).

[39] Iwasaki (2011: 48, fn 26) acknowledges thanks to Marcel den Dikken for "his suggestion on a potential parallel between JE CCs and specificational pseudoclefts with TP counterweights of den Dikken et al. (2000)." See also Iwasaki (2012: 150, fn. 1) for the same acknowledgement.

[40] See Tagawa & Iwasaki (2012) for the theoretical discussion in favour of this FinP analysis over the TopP analysis but notice that one may use the TopP projection in lieu of the CP of Tagawa & Iwasaki, if one attempts to maintain the central thesis of den Dikken et al.'s Topic analysis, i.e., *topic-comment* construction.)

[41] Tagawa & Iwasaki (2012) replaces the TopP of den Dikken et al. with CP but we will retain the former here.

syntactic structure to the structure in (66), with the copula in Fin^0 being overt sometimes in varieties of English such as Jamaican English (Iwasaki (2008)) but usually covert in Standard English.[42/43]

(67) [$_{TopP}$ [$_{DP}$ The more we eat]$_1$ [Top^0 **[$_{FinP}$ [$_{Fin}$ ~~is~~$_2$]** [$_{TP}$ [PRO-PREDICATE]$_1$ [$_T$ t_2] [$_{RP}$ [$_{FocP(=CP)}$ the happier we become] [$_{R'}$ [RELATOR^0] t_i]]]]][44]

Notice that *we become (the) happier* undergoes a focalisation (cf. Iwasaki & Radford 2009), the consequence of which is *the happier we become*. This phrase is located in the specifier of the RELATOR Phrase whereas the first clause *the more we eat*, which is a CP in den Dikken (2005) and among many others but a DP in Iwasaki (2010, 2011), base-generates in the complement of the RELATOR. These constituents in the specifier and complement positions make up a canonical predication structure—and the complement of the RELATOR raises to Spec,TP.[45/46/47] Boeckx (2007: 33) claims in the derivation of specificational pseudoclefts that topicalisation after focalisation "reinforces the focal interpretation" of the constituent in Spec,FocP by "realizing structurally the informational contrast". If he is right, then the prerequisite structure is evident in (67), i.e., the Topicalisation of *the more we eat* subsequent to Focalisation of *the happier* makes the interpretation

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[42] One might say that the copula under discussion is *always* covert. The demarcation of the border between *usually* and *always* is beyond the scope of this paper. A certain level of abstraction certainly leads to the hypothesis that such a copula posited between the two clauses must be covert, whereas the copula omission that is internal to each clause is entirely optional. As den Dikken (pc) suggests, what could be behind the difference in distribution of copula omission in the two cases, i.e. near-obligatory in one and perfectly optional in the other, might be that in the former, the copula may remain in T^0 whereas in the latter it must move to Fin^0, but further argument on this issue will be put aside for future research.

[43] Both Locative Inversion and Comparative Correlative Constructions share the ineligibility of being placed in non-finite clauses.

(i) I expect on this wall will be hung a picture of Leonard Pabbs.
*(ii) *I expect for on this wall to be hung a picture of Leonard Pabbs.*
*(iii) *I expect on this wall to be hung a picture of Leonard Pabbs.*
(Bresnan 1994: 108)
*(iv) *It is important (for) the more you (to) eat, the more careful ((for) you) to be.*
*(v) *It is important (for) the more to eat, the more careful to be.*
Cf. *It is important [(for you) to be more careful, the more you eat.]*
(Culicover & Jackendoff 1999: 551)

[44] If one *purely* adopts den Dikken's (2006) analysis, without the exploitation of Tagawa & Iwasaki's (2012) proposal, then the structure that we reach is as follows.

(i) [$_{TopP}$ [$_{DP}$ The more we eat]$_i$ [$_{Top}$ is] [$_{TP}$ [PRO-PREDICATE]$_i$ T^0 [RP [$_{FocP(=CP)}$ the happier we become] [$_{R'}$ [RELATOR^0] t_i]]]]]

Nothing changes except the introduction of FinP; the core argument of the structure remains intact.

[45] A possibility that we do not pursue here in depth is that the second clause's *the* is the PRO-PREDICATE of Den Dikken (2006), and another *the* forms a constituent with the *more/-er* phrase. The first *the* would be covert.

[46] One might say that *we will be the happier the more we eat* is ungrammatical. However, Huddleston & Pullum (2000) suggest that this is sometimes possible. In addition, the following is entirely grammatical.

(i) We will be all the happier the more we eat.

[47] If small clauses are phases as den Dikken (2006; 2008) suggests, then it has to go through the escape hatch, i.e. the Spec of such a Phase. Another possibility is that the second clause might have undergone a successive cyclic movement from Spec,RP to Spec,*v*P.

of the latter more explicit because of the informational contrast.

It might not be clear, however, as Marcel den Dikken (pc) suggests, how *the more we eat* can be a predicate, and why it is predicated of the CP *we become happier*. We will turn to this question by examining the semantics of these sentences. The base-generation of the comparative correlative as a small clause is plausible when the semantic behaviour of the small clause below is taken into account. Consider the sentence in (68).

(68) a. I consider [$_{SC}$ [the excellent students] (to be) [the diligent students]].
b. I consider [$_{SC}$ [the diligent students] *(to be) [the excellent students]].

The second nominal phrase within the small clause semantically represents a quality/characteristic of the first nominal phrase's referents. That is, *excellent students* are always *diligent* but *diligent students* are not necessarily *excellent*—unfortunately! Consider comparative correlatives from this semantic perspective.

(69) [The more diligent the students (are)], [the more excellent the students (are)].

The first clause in (69) is a necessary but not sufficient condition of the second clause. This relation thus corresponds semantically to den Dikken's (2006) reversed copula constructions with an indefinite nominal in (70) below.

(70) An excellent doctor is Brian.

The property of being *an excellent doctor* is only a part of what *Brian* is. Interestingly, den Dikken also observes that subject-auxiliary inversion is impossible in this construction (den Dikken (2006: 91), which echoes our facts for Jamaican English in (59).

(71) *Is an excellent doctor Brian?

It is interesting to note that one can say *An excellent doctor is Brian* (= 'one individual meeting the criterion 'excellent doctor' is Brian') just as one can say *An excellent doctor is available*, but the former is not invertible as a Yes/No question while the latter is. The sentence in (70) is in fact quite a marked structure, for it supposes that the speaker needs to exemplify the membership of this category, rather than predicate something of Brian (cf. Nishiyama (2008) among many others), and, therefore, that the difficulty of the inversion (possible only in a quotative style) is because the question is generally whether the property can be predicated of *Brian*, rather than whether *Brian* fits some criterion. Consider the following exchange.

(72) Speaker A: *We need an excellent doctor.*
Speaker B: *Is Brian that? / Is that Brian?*

The first response asks whether *excellent doctor* can be predicated of *Brian*; the latter suggests that B thinks A has someone specific in mind, and asks whether it is *Brian.*[48] It is this second reading that characterizes the pseudo-inverse sentence. There is an indefinite, but inferred specific topic content.

Consequently, on the hypothesis that the comparative correlative's first clause is indefinite, it comes as no surprise that it cannot host a superlative clause such as a clause led by *the most*.

[48] We are grateful to Chris Cummins for the insights in this paragraph.

(73) *The most you want, the least you eat. (Culicover & Jackendoff 1999: 545)

We reiterate that the inverse copula construction we have looked at in this section has an indefinite predicate nominal (inverted) and this constitutes a further parallelism between this construction and the comparative correlative which have two indefinite clauses in that *the more* is semantically indefinite.

Some further arguments supporting the base-generation of the first clause in Spec,TopP are found in the following data.

(74) ?The more the audience applauded, what kind of claims were the speakers the more likely to make? (McCawley 1988: 733)

McCawley comments in his footnote (1988: fn. 19) that the 'high acceptability' of (74) is 'surprising' albeit *the more*-clause at the onset occurring in the position of the comparative correlative, not the Reversed Comparative Correlative. If we assume, however, that correlatives derive from Reversed Comparative Correlatives, the structure in (74) can be accounted for. The derivation would be that *The more the audience applauded* in (74) base-generates in Spec,TopP, co-indexes with the PRO-PREDICATE in Spec,TP, and the copula is moved from T^0 to Fin^0, resulting in the following structure.

(75) $[_{TopP}\ [_{DP}$ The more the audience applauded$]_1$ [Top^0 $[_{FinP}\ [_{Fin}$ ~~is~~$_2]$ $[_{TP}$ [PRO-PREDICATE$]_1$ $[_T\ t_2]$ $[_{RP}\ [_{CP}$ the speakers were the more likely to make what kind of claims$]$ $[_{R'}$ [RELATOR^0] t_1]]]]]

Subsequently, *what kind of claims* moves to Spec,CP of the embedded CP (in Spec, RELATORP) while *were* moves to the head of the same projection, and we have the following structure.

(76) $[_{TopP}\ [_{DP}$ The more the audience applauded$]_1$ [Top^0 $[_{FinP}\ [_{Fin}$ ~~is~~$_2]$ $[_{TP}$ [PRO-PREDICATE$]_1$ $[_T\ t_2]$ $[_{RP}\ [_{CP}$ [what kind of claims$]_3$ $[_C$ were$_4]$ the speakers t_4 the more likely to make $t_3]$ RELATOR^0 t_1]]]]

Note that fronting *the more likely* as would be expected in a normal comparative correlative would result in ungrammaticality, since *the more likely* would move to Spec,CP (or, Spec,FocP (Iwasaki & Radford (2009)) and the landing sites of the two elements, *what kind of claims* and *the more likely,* would clash.

(77) a. *The more the audience applauded, *what kind of claims*, the more likely were the speaker to make?
b. *The more the audience applauded, *the more likely*, what kind of claims were the speaker make?

In contrast, if *the more likely* solely moves to the Specifier position of FocP while *what kind of claims* remains in situ, the sentence is marginally grammatical, similar to *wh in situ* questions.

(78) ?The more the audience applauded, the more likely the speaker was to make WHAT kind of claims?[49]

[49] Thanks to Chris Cummins (pc) for suggesting this.

These empirical consequences thus provide interesting support for the structure posited for comparative correlatives in (67).

4. Concluding Remarks

We have argued that the comparative correlative is a type of inverse copula sentence. Starting with the assumption that the inverse copula construction is generated from a small clause structure, with a CP whose specifier is filled by an inverted predicate nominal, we have extended this analysis to the syntactic structure of the comparative correlative, aiming to argue that the comparative correlative comprises an inverse copular construction. Using Hatakeyama's (1997) analysis of inverse copula sentences as a starting point, we have subsequently proposed an alternative analysis that utilises FinP. In so doing, we argue that the copula moves from T^0 to Fin^0, where it may undergo PF-deletion. Moreover, we have further extended this analysis to the copula that is located in between the clauses in comparative correlatives, which is optionally overt in Jamaican English but usually covert in Standard English. We have argued that this copula is accounted for by exactly the same syntactic operation, moving to Fin^0 and that the comparative correlative derives from the reversed comparative correlative, which is made up of a small clause, analysable in terms of den Dikken's (2006) reverse predication structure and its null functional head, RELATOR.

The research outcome here has converged upon previous research. Firstly, the structure illuminating the *topic-comment* construction is traced back to Iwasaki's (2008; 2011c), Iwasaki & Radford's (2009) analyses. Secondly, the PRO-PREDICATE in (79), borrowed from den Dikken's (2006) analysis of the Inverse Copula and Locative Inversion constructions, seems to correspond to the 'demonstrative' (DEM) or 'correlative particle' of the second clause of comparative correlative constructions posited by den Dikken (2005). This correspondence is illustrated below in the following skeletal structure of den Dikken's analysis of comparative correlatives in (80).

(79) $[_{TopP}\ [_{DP}$ The more … $]_1\ [\text{Top}^0\ [_{FinP}\ [_{Fin}\ \sout{\text{is}}_2]\ [_{TP}$ **[PRO-PREDICATE]**$_1\ [_T\ t_2]\ [_{RP}\ [_{CP}$ the more …$]\ [_{R'}\ [\text{RELATOR}^0\ ]\ t_1\ ]]]]]$

(80) $[_{CP}\ [_{DegP}\ [_{QP}\ Op]\ [_{Deg'}$ the more$_i\ [\ldots t_i \ldots]]]][_{CP}\ [_{DegP}\ [_{QP}$ **DEM**$]]\ [_{Deg'}$ the more$_j\ [\ldots t_j \ldots.]]]]]$

Notice that the demonstrative or correlative particle in (80) is semantically linked with an Operator (denoted as *Op*) in the first clause. Den Dikken (2006: 514) likens this sort of link with the correlative construction to the *just as ... so …* construction. While there is no direct counterpart to this Operator in (79), systematically the PRO-PREDICATE is linked with the entire DP. This link is the semantic source of the correlative, as in the argument of den Dikken (2005). How this research outcome in (79) can be extended to the comparative correlatives of other 'languages' is a significant question that we shall put aside for future research.

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(As of 31st December 2012)