

# Comparative Correlative Constructions Revisited\*

Iwasaki, Eiichi

## Abstract

The major objective of the present article is to investigate the structural relation between the two clauses in the English comparative correlative construction. Building upon a critical review of previous research, including the amendment and refinement of Iwasaki (2010b), we argue that the construction has a covert copula verb which has the first clause in the specifier of a Tense Phrase (TP, hereafter), and the second, the complement of a Verb Phrase (hereafter VP), being equivalent to Culicover & Jackendoff's (1999) "Hypothesis E", which they proposed and abandoned. Subsequently, we argue that the first clause behaves adverbially, notwithstanding its syntactic status as the subject of the null copula verb. We highlight the parallel relation between the English comparative correlative construction's clause and a construction which Huddleston & Pullum (2002) call "exhaustive conditional," following Borsley's (2011) suggestion on the resemblance between the two. We demonstrate that the Japanese comparative correlative construction may have the reduplication of a sentence in its *hodo*-clause.

## 1. Introduction

The comparative correlative constructions (CCs hereafter, following Taylor (2006)) in so-called Standard English are exemplified in the following.

(1) The more you read, the more you understand. (Abeillé & Borsley 2008)

This construction has been a hot potato for generative linguistic theories. The debate has been initiated by the pivotal work by Culicover & Jackendoff (1999), who discuss the apparent idiosyncrasies that they consider to be problematic for the Minimalist machinery. Additionally, Abeillé & Borsley (2008) argue that CCs seem to pose a challenge to the Principles & Parameters

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(hereafter, P&P) framework, drawing from Culicover & Jackendoff's (1999) observations.

Regarding the first issue, some linguists such as den Dikken (2005), Taylor (2006), and Iwasaki & Radford (2009) argue that CCs can be analyzed within the framework of P&P and Minimalism. The major issues that have been addressed in the syntactic debates include the following: first, what is the syntactic relation between the first clause and the second? Second, what are the internal structures of the first and second clauses, and in particular, what are the roles and properties of *the* in English CCs? The present paper firstly confirms the preceding debate on the latter question and subsequently proposes an amended proposal on the first clause's internal structure (based on Iwasaki (2010b)), and then proceeds to a substantial discussion on the issue of the structural dependency between the two clauses. Major past research on the issue includes Culicover & Jackendoff (1999), den Dikken (2005), and Abeillé & Borsley (2008). Culicover & Jackendoff (1999) argue that the structural dependency between the two clauses is "*sui generis*," being entirely incompatible with the standard minimalist technology. In contrast, den Dikken (2005) proposes the universalist viewpoint that it is possible to capture the structure by postulating that the first clause is an Adjunct to the second in every language's CCs. However, Abeillé & Borsley (2008), as well as Borsley (2011), claim that, given that a typical Adjunct may be optional, den Dikken's (2005) proposal is inadequate in that it does not explain why the first clause must be obligatory. In pursuit of a solution to this issue, Abeillé & Borsley (2008) propose that the first clause is in a specifier position of a functional head (that they denote as "F1" below) "which obligatorily has a feature requiring a specifier of a certain kind" (p. 1154), while the second, the complement of the head, as follows.

(2)  $[_{F1P} [_{F1} \text{The more you read}, [_{F1} \emptyset] \text{the better you understand}]]$  (Abeillé & Borsley 2008: 1154)

While this analysis seems fine in answering the question above, the analysis is still rather stipulative. So is a Topic analysis offered by Iwasaki & Radford (2008), who adopt Abeillé & Borsley's (2008) functional-head analysis in (2) and propose that the first clause is in the specifier of a Topic Phrase and the second, in its complement. In lieu of the proposals in the past research, the present research argues that English CCs can be syntactically analyzed as a copula construction in which the first clause is a subject of the copula and the second clause, the complement of the copula, defending the "Hypothesis E" that Culicover & Jackendoff (1999) suggested and subsequently rejected (Infinitival Phrase is noted as IP hereafter.):

(3)  $[_{IP} \text{The more you read}, [_{I} \emptyset] [_{VP} [_{V} \emptyset] \text{the more you understand}]]$ . (Culicover & Jackendoff 1999: 548)

In the subsequent discussion, we will put a covert element in  $V^0$  in the type of structure as in (3).

Regarding the second issue, Abeillé & Borsley (2008) argue that, in order for P&P to be substantively distinct from other approaches, which as they suggest with their cited literature

assume the limited variations of human language but not parametric ones, the number of parameters must be “fairly small” (ibid, p. 1140). In particular, they suggest that constructions such as CCs should be explicable on the basis of general parameter settings. The central claim made by Abeillé & Borsley (2008) is that the CCs do not manifest this type of general parametric variation across languages, thus casting doubt upon the explanatory capacity of P&P (contra den Dikken (2005)).<sup>1</sup>

The organization of the present paper is as follows. In section 2, we will review the internal structure, in particular, the first clause of English CCs, amending Iwasaki’s (2010b) analysis of the first clause of the English CCs, while maintaining the spirit of his central argument. In section 3, we will reexamine “Hypothesis E” suggested and abandoned by Culicover & Jackendoff (1999), and argue that the hypothesis can be in fact sustainable. In section 4, we argue that there is a covert *is* (or a verb of the same nature) between the two clauses. In section 5, we investigate the parallels between CCs and what Huddleson & Pullum (2002) calls the “exhaustive conditionals” (adopting Borsley’s (2011) suggestion). In section 6, we summarize our arguments.

## 2. The Internal Structure of the First Clause: The Amendment of Iwasaki (2010b)

Our research counters Abeillé & Borsley’s (2008) remark (as we saw in section 1) by maintaining that the crosslinguistic variation in the first clause of CCs is a product of the widely accepted Head parameter.<sup>2</sup> In particular, we will see the comparative syntax of the first clause in English (drawing from Iwasaki (2010b) as in (4a)) and in Japanese (from Iwasaki (2010a) as in (4b)), the major distinction of which can be explicable by either the Head-First or Head-Final. We consider the following contrast (hereafter, RC = relative clause, COND=CONDITIONAL):<sup>3</sup>

(4) (a) [The more [RC you read *t<sub>i</sub>*], the more you understand. (English)

(b) [[RC yome-**ba** yomu] **hodo**], motto wakaru. (Japanese)

read **COND.** read **DEGREE** more understand

Iwasaki (2010b) develops a detailed argument to counter the potential criticism that the *the more* is a constituent (such as raised by Borsley in Iwasaki & Radford (2009)) and that the *the* is not in D<sup>0</sup> (the head of the Determiner). Iwasaki (2010a) argues that the *hodo* is in D<sup>0</sup>. Assuming that the skeletal analyses in (4a, b) are on the right track, the apparent radical distinction between two

1 Abeillé & Borsley’s (2008) claim on the basis of the comparative syntax of English and French is methodologically debatable, for the reason that since both of them are Head-Initial languages, the operation of Head-parameter setting of course should not be found.

2 There is such a vast amount of literature on this parameter. See Fukui (1995) and the literature cited there.

3 See also Taylor (2006: 9) for Japanese CCs.

languages' CCs can be straightforwardly explicable, given that English is a Head-First language and Japanese Head-Final.<sup>4</sup> That is, the head of the first clause in English is the *the* while the *hodo* is its counterpart in Japanese, the scenario being compatible with Head-parameter setting.<sup>5</sup>

We amend Iwasaki's (2010b) analysis, who insists that the work there is dependent upon Kayne (1994). Iwasaki's (2010b) analysis is not a correct reflection of Kayne's (1994) relative clause analysis in that Iwasaki (2010b) does not explain the CP recursion, which is not in Kayne's relative clause analysis, and appears to be ad hoc. (hereafter CP=Complementizer Phrase) We propose an amendment and refinement of Iwasaki's (2010b) analysis of the first clause in English CCs as in (5) below, utilizing the analysis by Alrenga (2005), whose work is in the spirit of Koster's (1978) sentential subject and Chomsky's (1977) A' movement of the Operator. (henceforce, Op=Operator; DP=Determiner Phrase)

(5) [<sub>DP</sub> [<sub>D</sub> The] [<sub>CP</sub> [<sub>more</sub>]<sub>i</sub> [<sub>CP</sub> Op<sub>i</sub> [<sub>C</sub>  $\emptyset$ ] [<sub>TP</sub> you read  $t_i$ ]]]], the more you understand.

In the above, we applied the "topic" analysis by Alrenga (2005) to the analysis of CCs, by replacing his "sentential subject" with the *more*-phrase (functioning as an antecedent of the restrictive clause) and by adding the outer DP (based on Iwasaki (2010b), who adopts Kayne's (1994) relative clause analysis in which the DP is postulated) to Alrenga's original proposal. If we have characterized Alrenga's (2005) position properly, nothing prevents the replacement of the sentential subject with the *more*-phrase, at least in (5). Notice that the *more* base-generates there without any movement: It is the null Operator that moves and then is co-indexed with the *more*. This (underlined part) is in the spirit of Alrenga (2005) and perhaps of the null Operator of Radford & Felser (2011), and this explains the postulation of the double CPs. In (5), we argue (based on Iwasaki (2010b)) that the inner CP is a relative clause, which has the raising of a null operator in the sense of Alrenga (2005).

### 3. Culicover & Jackendoff's (1999) "Hypothesis E" Revisited<sup>6</sup>

This section will bring us to the re-examination of Culicover & Jackendoff's (1999) "Hypothesis E", which they subsequently rejected. The "Hypothesis E" places the first clause in the specifier of IP (or TP), the second, in the complement.

<sup>4</sup> This paper assumes that Japanese is a Head-Final language. See Fukui (1995), for example.

<sup>5</sup> Needless to say, there are other languages which *prima facie* do not have determiners in CCs. However, the apparent lack of the explicit determiners does not constitute the substantial lack of such determiners.

<sup>6</sup> The argument in this section (on the reexamination of Culicover & Jackendoff's (1999) 'Hypothesis E') with regard to the subjunctive morphology and tag questions is partly (but not entirely) based on Iwasaki (2008) with amendments. However, the argument on the subjunctive morphology here is slightly different from Iwasaki's (2008), although some parts are the same and so are the goals of the arguments in the two.

(6) [<sub>IP</sub> The more you read, [<sub>I</sub>  $\emptyset$ ] [<sub>VP</sub> [V  $\emptyset$ ] the better you understand]].

Culicover & Jackendoff (1999) reject this hypothesis “on methodological grounds, because of its unmotivated verb and I” and also on empirical arguments; they raise empirical data concerning subjunctive morphology and tag questions. However, their argument is debatable.

First, let us examine the empirical discussion in Culicover & Jackendoff (1999: 548) as to the subjunctive morphology. They argue that the following is grammatical.

(7) It is imperative that the more John **eats**, the more he pay. (ibid) [emphasis and underline added]

However, this grammaticality is subject to speaker variation and is dubious to many native speakers. Most of (not all of) the native speakers I consulted are reluctant to admit that the sentence in (7) is grammatical, while suggesting that (8) below is possible.<sup>7/8</sup>

(8) It is imperative that the more John **eats**, the more he **pays**.

(Culicover & Jackendoff 1999: 548) [emphasis added]

This seems rather to undermine Culicover & Jackendoff’s (1999) empirical argument that the second clause is a main clause. In addition, as Huddleston & Pullum (2002: 999) argue, the range of the subjunctive morphology is not restricted to the main clause. (See Iwasaki (2008), who also is based on Huddleston & Pullum (2002: 999)). Consequently, it is not crystal clear whether the empirical tests of the subjunctive morphology can work for syntactically main clause phenomena.

The following (9a) is arguably a so-called British English (hereafter BrE) counterpart of the so-called American English (hereafter AmE) in (7) with the subjunctive morphology.

(9) (a) It is imperative that the more John **eats**, the more he should pay.

(b) It is imperative that the more John **eats**, the more he **pays**. (= (8))

(9a) means that the obligation to pay increases with the amount eaten (epistemic reading) whereas (9b) means that *John* cannot avoid the fact that eating more results in a bigger bill; in proportion to the amount of what he eats, he has to pay more (deontic reading).<sup>9</sup> Consider the implication of the root clause (i.e., *The more John eats, the more he pays*). It is close to the second interpretation (i.e. *eating more results in a bigger bill*). This would arguably lend support to the claim that (9b) is semantically more natural than (9a) as a subjunctive counterpart to the root clause.

Culicover & Jackendoff (1999: 548) argue that in English CCs the tag question is associated with the second clause as illustrated by the following data:

7 I am grateful to Ian Roberts (pers. comm.), Sumio Sakomura (pers. comm.), and Peter Sells (pers. comm.) for grammaticality judgments OR help as to the collecting of American English’s judgments.

8 Marcel den Dikken (pers. comm.) suggests that (8) is a reflection of what he calls “harmony effect” between the two clauses but this should be spelled out in an independent piece of work.

9 This was originally suggested by Peter Grundy (pers. comm.). I am grateful to Peter Grundy for other valuable suggestions, including about (8). However, I am solely responsible for any fallibility in the argument.

(10) (a) The more we eat, the angrier you get, don't you.

(b) \*The more we eat, the angrier you get, don't we.

(c) \*The more we eat, don't we, the angrier you get.

(Culicover & Jackendoff 1999: 548) [(10a-c): no interrogation mark in the original]

However, as Huddleston & Pullum (2002: 893-894) suggest, tag questions sometimes may be a reflection of "communicative meaning" (ibid), rather than syntax.<sup>10</sup> Thus, the data in (10a-c) are not entirely conclusive.

In addition, Culicover & Jackendoff (1999: 559) observe that the auxiliary inversion can occur in the first clause, but not the second.

(11) (a) ?The more Bill smokes, the more does Susan hate him.

(b) \*The more does Bill smoke, the more Susan hates him.

(Culicover & Jackendoff 1999: 559) [grammaticality judgments in the original]

However, as Abeillé & Borsley (2008) (citing their anonymous referee's suggestion) note, this does not necessarily support the main-clause hypothesis because the embedded clause can have such an inversion as is the case in the above example in an appropriate context.<sup>11</sup>

(12) I think that *at no time would* she have considered doing anything like that.

(Abeille & Borsley 2008: 1143, fn. 5) [italics and emphasis added]

Given this, Culicover & Jackendoff's (1999) evidence in (11a, b) does not necessarily mean that the second clause is a matrix clause; it still remains tenable that the second clause is an embedded one. Furthermore, the structure of the focalization in the embedded clause in (12) is entirely consistent with Iwasaki & Radford's (2009) argument that English CC's clauses undergo focalization.

Heretofore, we have confirmed Culicover & Jackendoff's (1999) "Hypothesis E" is still tenable, through the re-examination of the empirical tests above.

#### 4. The Covert Copula between the First and Second Clauses

Iwasaki (2008) provides empirical data that show that some (but not all) CCs in Jamaican English (hereafter JE) have an overt *is* between the first clause and the second, exemplified by the following.<sup>12</sup> (See Iwasaki (2008) for the data that were collected by search engines.)

<sup>10</sup> Huddleston & Pullum (2002) show the following example:

(i) I think it's legal, isn't it? (Huddleston & Pullum 2002: 893) [italics in the original ignored]

Apart from the syntax-semantics issue, see also Massam (1999: 344) and Iwasaki (2008) for the relevant discussion on the tag question.

<sup>11</sup> Notice that this is Abeillé & Borsley's (2008) anonymous referee's suggestion. Abeillé & Borsley (2008) support Culicover & Jackendoff's (1999) idea that the second clause is a main clause.

<sup>12</sup> I wish to thank Alison Irvine (pers. comm.) for relevant discussion on JE.

(13) %The more you read **is** the more you understand.<sup>13</sup>

In addition, this type of structure seems to sometimes occur with the overt *is* in SE's Late Modern English (LModE).<sup>14</sup> If our supposition here is correct, then it may be possible to maintain that the relevant structure such as in (13) is researched from both diachronic and cross-variety viewpoints (concerning English), with CCs' syntactic architecture being like the following.

(14) [<sub>TP</sub> The more you read [<sub>T</sub>  $\emptyset$ ] [<sub>VP</sub> [<sub>V</sub> **is/means**] the more you understand]]<sup>15</sup>

This is basically Iwasaki's (2008) analysis of JE's CCs' *is*, putting aside the technical details. We further extend the scope of this analysis to the SE's CCs.<sup>16</sup> Notice that a standard way to cope with the copula is that the copula verb is to be placed in T<sup>0</sup> to account for the movement from T<sup>0</sup> to C<sup>0</sup> (see Radford 2009: section 4.6, for example). However, since there is no need to suppose that the *is* between the two clauses has to move from T<sup>0</sup> to C<sup>0</sup>, it may be possible to put it in V<sup>0</sup>, ignoring the postulation of *vP* and number agreement. In the analysis in (14), the first clause of English CCs is syntactically in the subject of the matrix copula but functions adverbially.<sup>17</sup> This seems to be compatible with Culicover & Jackendoff's (1999) syntax-semantics mismatch viewpoint; however, their argument that the structural relation between the two clauses in English CCs is a subordinate-matrix relation at semantics but paratactic at syntax, is different from ours *if* the definition of paratactic does not include the copula structure.

## 5. The Parallel to Other Constructions

### 5.1 The Parallel to Exhaustive Conditional Constructions

In this section, let us consider the potential parallel between English CCs and what Huddleston & Pullum (2002: 761-765) call Exhaustive Conditionals.<sup>18</sup> As Borsley (2011) argues, the similarity between the two constructions can be found in the copula omission. (Space consideration hinders us from reviewing this issue in detail here; see Borsley (2011), as well as Abeillé & Borsley (2008)). If we confirm the parallel between English CCs and Exhaustive Conditionals, we can bolster the validity of the argument that there is a covert copula between the two clauses in the former, given that the latter does have the overt one as in (15), (16a, b) below.<sup>19/20</sup>

13 This is not an example from authentic material but an example that I made based on the theoretical possibility of the *is* between the two clauses. For the data from authentic materials, see Iwasaki (2008).

14 Given potential copyright concerns and the space limit, specific examples are not to be enlisted here but readers should find them if the search engines are effectively utilized.

15 Peter Culicover (pers. comm.) suggests the following is possible with the *means* between the two clauses.

(i) The harder you work now *means* the more money you will make when you are older.

16 Iwasaki (2008) only briefly mentions the possibility of there being a covert copula in SE but does not argue.

17 See Massam (1999: 348) for a similar observation on her *Thing is* construction.

18 The first published research that suggests the similarity of the clauses in CCs to Exhaustive Conditionals is Borsley (2009) and Borsley (2011). The present paper heavily relies on the original idea by Borsley.

19 Alrenga (2005: 188 and 188, fn.10) discusses the plural verb agreement, citing from McCloskey (1991). See their arguments.

20 The sentences in (16a, b) are suggested by Chris Cummins (pers. comm.)

(15) Wherever there is a will **is** where there is a way.

(16) (a) [Wherever there is a will and wherever there is a wish to change] is [where there is a way].

(b) [However many burgers you eat and (however many) milkshakes you drink] is [how fat you will get].<sup>21</sup>

There are some conditions for the matrix copula to be overt. We will discuss this in section 5.3. The examples in (15), (16) seem to me to show that the exhaustive conditional, which “is the only place where interrogative clauses function as adjunct rather than complement” (Huddleston & Pullum 2002: 762), is sometimes difficult to syntactically distinguish from the “fused relative” which serves as “an NP functioning as subject” (ibid: 763). Perhaps it is appropriate to call the constructions in (15), (16a, b) “a relative-interrogative blend” (ibid: 762).

Borsley (2011: fn. 2) contrasts the following two sentences with the concurrence of the emboldened phrases, ascribing the citation of the following (17a, b) to his anonymous referee:

(17) (a) **The more people drive at higher speeds** on narrower roads, the more accidents you are going to get.

(b) **Whichever book** you buy **in whichever store**, you always end up paying too much.

[italics and emphasis added]

Borsley (2011) suggests that (17a) includes “two *wh-ever* phrases” [italics in the original], whereas (17b) holds only one *the*-phrase and the other one without the *the* sits in-situ. However, the following has two *the*-phrases:

(18) **The more of the less diligent students** the teachers had to teach, the harder time they would spend. (Iwasaki 2010b: 90) [emphasis and italics added]

Notice that the case above has two *the*-phrases, both of which have the overt *the*.

One final point to make is that, as Iwasaki & Radford (2009) note, the exhaustive conditional clause is marginally possible in replacement of the first clause of English CCs:

(19) ?However much more difficult a language is, the greater the pleasure of mastering it is.

(Iwasaki & Radford 2009: fn. 8)

These seem to bolster the parallel between English CCs and exhaustive conditionals.

## 5-2 The Parallel to Japanese CCs: CP Reduplications in Copula Sentences

Let us look at Japanese CCs in an attempt to suggest some similar characteristics of Japanese CCs (and more generally CCs) on one hand and English exhaustive conditionals on the other. Iwasaki (2010a) notes some tentative arguments on CCs in Japanese.<sup>22</sup> Iwasaki’s (2010a) analysis is that *ba*-

21 The paralleled version in English CCs is:

(i) The more burgers you eat and the more milkshakes you drink, the fatter you get. (Iwasaki & Radford 2009)

22 See also Ishii (2008) for the analysis of Japanese CCs.



clause is a CP, which is adjoined to *hodo*-clause (which is a DP).

- (20) [CP [DP [CP kenkyu-sure [c ba]] [DP (kenkyu-) suru [D hodo]]] [CP [TP [VP **sono-bun** wakaranaku-naru]] [c  $\emptyset$ ]]<sup>23</sup>

research-do CONDITIONAL. (research)-do DEGREE **to-that-extent** don't understand

'The more we research (something), the less we understand (it).'

(p. 30) [analysis and emphasis in the original / English glosses added]

Note that the emboldened part is optional. Iwasaki's (2010a) analysis above, however, does not offer any answer to why the underlined VP must be reduplicated; we will consider this issue later.

Let us first confirm that Japanese CCs basically have three forms.

- (21) (a) Benkyo-sure-**ba** Benkyo-suru-**hodo** motto seeseiki-ga agaru  
study-do-**COND (ITIONAL)** study-do-**DEGREE** more marks-NOM (INATIVE) increase  
"The more you study, the better grades you will get"
- (b) Benkyo-suru-**hodo** motto seeseiki-ga agaru  
study-do-**DEGREE** more marks-NOM. increase  
"The more you study, the better grades you will get."
- (c) kanemochi-**hodo** kechi da<sup>24</sup>  
the rich-**DEGREE** thrifty COP (ULA).  
"The richer one is, the more thrifty s/he is."

Notice that the conditional clause led by the *ba* is not essential (Iwasaki 2010a: 29); we can drop the conditional clause, resulting in (21b), which only has the *hodo*-clause in presumably the first clause.

As Iwasaki (2010a) suggests, the *hodo* cannot co-occur with the *wa*, which is typical in a Japanese copula structure. This is exemplified by the following.

- (22) Kanemochi {-**hodo** (\*-**wa**) / (\*-**wa**) -**hodo**} kechi da

It appears that the *hodo* and the *wa* are in the complementary distribution. This is consistent with the present paper's central argument that CCs have copula structures.

A further important point suggested by Iwasaki (2010a) is that we can and must place a nominal immediately before the *hodo*, because the *hodo* requires either an adnominal form of VP or a nominal. (See Iwasaki's (2010a) argument.) An adequate analysis must give a unitary account to the three cases in (21a, b, c). If we assume that the entire *hodo*-clause is a DP, as Iwasaki (2010a) does, then this can be satisfactory met; this renders a support to the analysis in (20). However, the present paper slightly modifies the technicalities of Iwasaki's (2010a) analysis to the extent that this modification does not affect the P&P argument in section 2; that is, in Iwasaki's (2010a), it is the

<sup>23</sup> *Sono-bun* or *sore-dake* (which is analogous in meaning to *sono-bun*) is optional, as Iwasaki (2010a) suggests.

<sup>24</sup> See also Iwasaki (2010a) for the type of the Japanese CC like (21c).



(27) [<sub>TopP</sub> [<sub>CP</sub> what John bought] [<sub>Top'</sub> [<sub>Top</sub> was] [<sub>TP</sub> ~~he bought~~ some wine]]]

(den Dikken et al. 2000: their (13)) [fonts and others modified; strikethrough added]

The sentences in (25) are, according to den Dikken et al., quite unacceptable more or less for a majority of native speakers but (if I understand them correctly) the sentences are treated as marginally grammatical; and my informant's judgment is also grammatical. We will argue about the reason for this unacceptability in detail in section 5.3; however, succinctly put, when the complement clause of the matrix copula does not have a complementizer or an overt *wh*-subordinator (such as *when* and *where*) in Spec-CP, the matrix copula cannot be covert.

Provided that their analysis in (27) is on the right track, the Head-final counterpart in Japanese is as follows, with the replacement of their TopP with a theory-neutral FP.

(28) [<sub>FP</sub> [<sub>CP</sub> ...] [<sub>F'</sub> [<sub>TP</sub> ...] [<sub>F</sub>  $\emptyset$ ]]] (Specifier-Complement-Head)

The reason that we replace den Dikken et al.'s (2000) TopP with the FP is that when conventional functional categories can analyze the relevant syntactic structure, new categories are not called for. Massam (1999) discusses some similarities between her *Thing is* construction (or the so-called double copula construction) such as below with specificational pseudoclefts but also differences.<sup>27</sup>

(29) The thing is, is we've got to be strong. (Massam 1999: 335)<sup>28</sup>

Massam (1999: section 3) postulates that both pseudoclefts and *Thing is* construction have INFL<sup>0</sup> "which contains Focus Feature along with inflectional features" (Massam 1999: 346). This analysis is arguably advantageous in that it only uses conventional functional categories. If we adopt Massam's (1999) postulation of the INFL<sup>0</sup> above, it follows that English CCs have a copula structure: English CCs and Japanese exhaustive conditionals both have a copula structure around which CP reduplications occur.

Returning to the analysis of Japanese CCs, if we replace the CP [in (28)] with CP1 [in (24)], and replace the TP [in (28)] with CP2 [in (24)] tentatively supposing that the CP2 is a TP, which is one theoretical possibility, the resulting analysis is:

(30) ??[<sub>FP</sub> [<sub>CP2</sub> [<sub>CP1</sub> gakkoo-de watashi-ga benkyo-sure [<sub>C1</sub> ba]]] [<sub>F'</sub> [<sub>TP</sub> gakkoo-de watashi-ga benkyo-suru] [<sub>F</sub> **hodo**]]] ....

The only prominent distinction between (24) and (30) is in the treatment of the CP1; it is in Spec-FP in (30), and otherwise the structure is the same. Given the structural parallelism between (27) [or (28)] and (30), it is possible that the Japanese CCs' "... *ba* ... *hodo*" exhibits a structure that den

<sup>27</sup> I use the term "double copula construction(s)" in its literal sense. In so far as I have searched, the major initial works that started employing this term include Andersen (2002).

<sup>28</sup> den Dikken et al. (2000: around their (148), (149)) briefly discuss *Thing is* construction. Iwasaki (2008) discusses Massam's (1999) *Thing-is* construction with an emphasis on copula omission, and also very briefly mentions the structural parallelism between JE's CCs and SE's *Thing-is* construction.

Dikken et al. (2000) propose concerning specificational pseudoclefts with a TP-counterweight.<sup>29</sup> (den Dikken et al. argue for a Topic-Comment analysis, which is projected into their TopP.)

Returning to the CP reduplication, this seems to occur in English too, in particular, in a cousin to a type of the exhaustive conditional constructions, exemplified by (31) (in contrast with (32)):

(31) **(As) tired as John is**, he always joins us.<sup>30</sup>

(32) {However tired John is / No matter how tired John is}, he always joins to us.

Notice that (32) is examples of a type of exhaustive conditional whereas (31) is a cousin of this. The subordinate clause in (31) can be assumed to be the result of CP reduplication as follows:

(33) (\***John is**) **as tired as John is**, he always joins us.<sup>31</sup>

It seems that a variety of *Englishes* (including non-native speakers') include the following case.

(34) %As more as you practise, as better you become.<sup>32</sup>

However, the data in (34) of course remain suggestive unless we argue in depth in future research.

We have argued that Japanese CCs' "*-ba -hodo*" clauses implicate CP reduplication, in reference to den Dikken et al.'s (2000) claim on a type of specificational pseudocleft. We also have noted that English CCs' first clauses might have CP reduplications. It should be well emphasized here that the exhaustive conditional is a type of interrogative, as Huddleston & Pullum (2002: 14.6) observe, whereas the specificational pseudocleft with TP counterweights is an interrogative, as Higgins (1979) suggests.<sup>33</sup> This means that we can classify both exhaustive conditionals and specificational pseudoclefts as interrogatives.

### 5-3 The Condition for the Matrix Copula to be Covert

In the discussion thus far, we have argued that English CCs have a copula between the two constructions and that the English exhaustive conditionals have such a copula, too (and suggested that Japanese CCs' *hodo*-clause might be a copula structure). The important question that must be addressed is upon what condition such a matrix copula can be covert, given that English CCs

29 If we adopt Kayne's (1994) argument that the Spec-Complement-Head structure of Head-final languages emerges when the complement of the Spec-Head-Complement structure goes upward "to some specifier position to left of the head" (ibid: p. 35), then it follows that the parallel would be further strengthened between Japanese CCs and the specificational pseudoclefts with TP counterweights of den Dikken et al. (2000).

30 See Huddleston & Pullum (2002: 634) for this type of construction.

31 The underlying intuition behind this is that comparative constructions are "reduced in certain specific ways" (Huddleston & Pullum 2002: 64), exemplified by the following.

(i) He's as old as [I am \_]

(ii) \*He's as old as I am old. ((i), (ii): (ibid) [underline and brackets in the original: italics in the original ignored])

32 [http://www.iihf.com/home-of-hockey/news/news-singleview/article/ice-hockey-on-plastic.html?tx\\_ttnews\[backPid\]=955&cHash=89b34ed5ec](http://www.iihf.com/home-of-hockey/news/news-singleview/article/ice-hockey-on-plastic.html?tx_ttnews[backPid]=955&cHash=89b34ed5ec)

33 Borsley (2011: fn. 1) notes that exhaustive conditionals are not free relatives but interrogatives, citing from Huddleston & Pullum (2002: 14.6). Borsley (2011: fn. 1) also refers to Rawlins (2008) in this regard. den Dikken et al. (2000: section 4.1) argue, based on Higgins (1979), that a type of specificational pseudo-cleft is not free relatives but interrogatives.

usually do not have the overt matrix copula. Let us consider this problem below.

Firstly, a clue to the answer to this question lies in the data, such that when the complement clause has an explicit complementizer (or an explicit subordinator), the matrix copula cannot be covert.<sup>34</sup>

(35) (a) What's more important is **whether** he will call.

(b) \*What's more important, **whether** he will call.

(36) (a) Main thing is, **is** **that** he always comes late / **whether** he will call}.

(b) Main thing is, {(**\*that**) he always comes later / (**\*whether**) he will call}.

(37) (a) {Where/Wherever} there is a will \*(is) **where** there is a way.

(b) {Where/wherever} there is a will, there is a way.

(c) There is a will, there is a way.<sup>35</sup>

(38) (a) {How/However} California goes \*(is) **how** the nation goes.

(b) {How/However} California goes, the nation goes.<sup>36</sup>

What the data above suggests is that when a matrix copula's complement clause has an explicit complementizer or *wh*-subordinator, the matrix copula must be overt (i.e. cannot be covert), if the subject is a *wh*-interrogative (as we classified before).<sup>37</sup>

Secondly, some more data that appear to be relevant to the argument of the subject clause located in the specifier position of the matrix copula includes the following in (39). Notice that without *more*-phrases, they become ungrammatical.<sup>38/39</sup>

(39) (a) **What is \*(more) important**, is he found a good partner. [striketrough: a covert element]

(b) **\*(More) important**, he found a good partner.

(c) **Worse still**, he lost the game.<sup>40</sup>

This would mean that, only under the condition that the *wh*-clause (located in the subject position of such matrix *is*) has a *more*-phrase, the omission of the matrix copula is possible and the relevant

34 I am grateful to Peter Culicover (pers. comm.) for originally suggesting (35a, b), (36a, b), and the grammaticality judgments of (37a-c), (38a, b). Notice that (36a, b) are *Thing is* constructions that Massam (1999: 348) proposes. See Massam (1999) for similar cases where the complementizer *that* is disallowed where a matrix copula verb is covert. The examples in (36a, b) and Massam's examples are compatible with our argument on the licensing condition of relevant matrix copulas.

35 Peter Culicover (pers. comm.) suggests that "connection between the clauses is inferred."

36 The structure which is arguably an archetype of this is:

(i) As California goes, so goes the nation.

See Culicover & Winkler (2008: section 4.1) for relevant discussion.

37 Needless to mention, when the complement of the matrix copula is not sentential, the overt copula is grammatical, as illustrated in the following example.

(i) Whatever you suggest is fine.

In addition, when the subject clause is not a *wh*-interrogative, this constraint is irrelevant, which is suggested by the following grammaticality (Chris Cummins, pers. comm.).

(ii) {All / the only thing} that John does is he buys some wine.

38 I am grateful to Peter Culicover (pers. comm.) for originally suggesting this.

39 Iwasaki (2010a) argues that Japanese CCs's *hodo*-clause behaves adverbially, referring to Larson (1985), and claims that the *hodo*-clause shares similar characteristics with the sentences like (39a-b) in this regard.

40 This was originally suggested by Marcel den Dikken (pers. comm.).

*wh*-phrase can perform adverbially.<sup>41</sup> This being so, the fact that English CCs' first clauses have overt *more*-phrases makes it possible for the English CCs to have a covert matrix copula.

Heretofore, we have argued the two relevant conditions for the matrix copula to be overt. The first condition is relevant to both English CCs and exhaustive conditionals, whereas the second is only concerned with English CCs. It may be plausible to conclude that the reason that English CCs can have a covert matrix copula is that they satisfy the two conditions: the first condition is on the complement clause *without* the overt complementizer, and the second, regarding *more*-phrases.

One might claim, in regard to the first condition that English CCs allow the second clause to have explicit complementizers as well as the first, as observed by Culicover & Jackendoff (1999: 546) and Borsley (2011: 4) among others, as illustrated below.

(40) The more (that) you eat, the less (**that**) you want.

(Culicover & Jackendoff 1999: 546) [emphasis added]

However, the grammaticality of the data above is debatable. Fillmore (1989: 24) and Iwasaki & Radford (2008: 3) suggest that the second clauses' overt *that* is ungrammatical. Moreover, Taylor's (2006) appendix (questionnaire survey) shows that the second clauses' overt *that* is disfavored by a relatively large number of people (see Taylor (2006) for the accurate data.). Thus, it is conceivable that the overt *that* in the second clause is a result of performance error. If so, English CCs satisfy the first condition as we argued above.

## 6. Conclusion

We have argued that English CCs syntactically have the copula construction in which the first clause is in the specifier position of a TP and the second clause, the complement of a VP, whilst there sits a covert or empty element (E below) in  $V^0$  without any movement. This structure is the reflection of the "Hypothesis E" that Culicover & Jackendoff (1999) suggested and rejected.

(41) [<sub>CP</sub> [<sub>C</sub>  $\emptyset$ ] [<sub>TP</sub> The more you read, [<sub>T</sub>  $\emptyset$ ] [<sub>VP</sub> [<sub>V</sub> E] the more you understand]]].

Regarding the internal structure of the first clause, we amended and refined Iwasaki's (2010b) analysis drawing from the analysis by Alrenga (2005), who is based on Koster (1978) and adopts Chomsky's (1977) operator movement in topic construction. Regarding the second clause, as Iwasaki (2010b) does, we adopt Iwasaki & Radford's (2009) argument that it has the focalization. Thus, we have the following structures.

41 Notice that the copula under discussion here is the copula between the two clauses. Regarding the copula omission that is internal to the first clause, see Borsley (2011: 9).

(42) (a)  $[_{DP} [_D \text{The}] [_{CP} [\text{more}]_i [_{CP} \text{Op}_i [_C \emptyset] [_{TP} \text{you read } t_i]]]]$ , the more you understand.

(b) The more you read,  $[_{FocP} [\text{the more}]_j [_{Foc} \emptyset] [\text{you understand } t_j]]$ .

If we place the two clauses in the structural dependency as in (41), we would reach the following.

(43)  $[_{CP} [_C \emptyset] [_{TP} [_{DP} [_D \text{The}]] [_{CP} [\text{more}]_i [_{CP} \text{Op}_i [_C \emptyset] [_{TP} \text{you read } t_i]]]]], [_T \emptyset] [_{VP} [_V \text{E}]] [_{FocP} [\text{the more}]_j [_{Foc} \emptyset] [\text{you understand } t_j]]]]$ .

One theoretical advantage of this proposal is *inter alia* its restricted use of conventional functional categories. The summary of our research is below, in contrast with the other preceding literature.

(44) Table 1

	The first clause	The second clause	Other notes
Culicover & Jackendoff (1999)	CP	CP	<i>sui generis</i>
den Dikken (2005)	CP	CP	Head-Adjunct relation
Abeillé & Borsley (2008)	CP	CP	Null functional head
Iwasaki & Radford (2009)	ForceP	FocP	Topic projection
The present paper	DP	FocP	Copula structure

den Dikken (2005) hypothesizes that the first clause is adjoined to the second; his crosslinguistic investigation claims that (i) the first clause is a relative clause and that (ii) this is adjoined to the second clause. The first point that the first clause is a relative clause appears to be plausible as we have seen in this paper, putting aside the difference seen between den Dikken (2005) and this paper (as well as Iwasaki (2010b)). On the other hand, the present research outcome is incompatible with den Dikken's claim that the first clause is an Adjunct to the second. In contrast, the present paper has argued that it has a copula structure at syntax but that the first clause behaves adverbially like exhaustive conditionals, making the main copula verb covert. This copula structure also provides an account to the problem (suggested by Abeillé & Borsley (2008) and Borsley (2011)) explaining why the first clause is obligatory and must be in a sentence-initial position, despite its *prima facie* syntactic status of Adjunct: The subject position of the copula always comes before the complement in English, and because of the Extended Projection Principles (EPP) (Chomsky (1982: 10) among others), the subject (clause) (i.e. the first clause in English CCs) is obligatory in such a copula sentence.<sup>42</sup> Note that, as Culicover & Jackendoff (1999: 553) and Taylor

<sup>42</sup> See Massam (1999: 346) for her argument that the "setup clause" satisfies the EPP in *Thing is* construction.

(2006: 4) suggest, the two clauses can be syntactically reversible but not semantically as the semantics of the reversed order produces a different meaning (see also den Dikken (2005: 512, fn. 17) for the relevant discussion and cited literature there). This is also consistent with our argument that the English CCs have a copula structure, since the copula's subject and complement are reversible syntactically but entailing semantic alternation.

We have argued that the licensing condition for the matrix copula being overt when it has a *wh*-interrogative in its specifier can be formulated as follows:

- (45) The matrix copula must be overt if its complement is either (i) a non-sentential phrase or (ii) a CP with either an ***overt*** complementizer or an ***overt wh***-subordinator in Spec-CP (such as *where*).

Otherwise, the matrix copula under the condition may not be overt (for many speakers). This explains why the English CCs (when without an overt complementizer in its second clause) cannot have an overt matrix copula between the two clauses in many cases in Present-day SE.

We have argued the parallelism between English CCs and exhaustive conditionals. We have confirmed that the latter is able to have the overt *is* between the apparent subordinate and matrix clauses, and by this we have enhanced the legitimacy of hypothesizing the covert matrix copula in the former. We also have found that Japanese CCs might have a copula structure and may have reduplication in the sense of den Dikken et al. (2000), and have suggested the possibility that English exhaustive conditionals may have, too. It seems to be worth noting the significant role of the reduplications in the structures which I think are copula structures, possibly shared by CCs and exhaustive conditionals—this would be an issue for future work.

(Lecturer, Takasaki City University of Economics)

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