Context-Dependent Case Connectivity Effect in Japanese Copular Constructions

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Abstract In Japanese, a nominal in copular sentences can show accusative case despite the lack of an overt accusative case licenser, depending on the non-linguistic utterance context where the sentences occur. To explain both the case licensing without an overt case licenser and contextual variability in case, I propose that the nominal is underlyingly a full clause obscured by an ellipsis, and that the non-linguistic utterance context affects whether the elided structure involves an accusative case licenser. Although the utterance context cannot directly affect the elided structure, I propose that Japanese covert pronoun pro can make it possible by mediating the context and ellipsis site.

Keywords: case connectivity effects; copular construction;Japanese

1 Introduction

In Japanese, a nominal in copular sentences can show accusative case despite the lack of an overt accusative case licenser as shown in (1).[1]

(1) [Context: Ito is a teacher and is in charge of monitoring the rooftop where students are disallowed to go. He is supposed to report at the beginning of the monthly teacher meeting who went there.]
    Eto: miitingu-o   hazimemasu. Itoo-sensee, doozo.
           meeting-ACC start-Top   S-teacher   please
           'We'll start the meeting. Teacher Ito, please'

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[1] (1) sounds better for some native speakers when the topic phrase *kongetu-wa* 'this.month-TOP' is added to the utterance initial position.

> **Ito:**   itinensee-**(o)** san-nin desu
> freshman-Acc 3-CL   Cop
> 'three freshmen.'

It is possible to imagine that Ito follows his utterance by listing up the names of three students who went to the rooftop. Note that accusative case can optionally follow *seeto* 'student'. The availability of the case is not trivial because it is not clear how the case can be licensed,[2] and superficaiily identical sentences sometimes cannot show the case, depending on the non-linguistic utterance context where they occur. (2) provides such an example.

(2)   [Context: Ito is a teacher. Since classes at this school are intensive, some students decide to quit on their own initiative every month. At the beginning of the monthly teacher meeting, Ito is supposed to report who quit in the month.]
Eto: same as (1)
Ito: itinensee-**(*?o)** san-nin desu
freshman-ACC 3-CL   Cop
'three freshmen.'

(2) sounds degraded when accusative case is pronounced.[3] Data such as (1) and (2) show that utterance contexts affect the availability of the accusative case. This is surprising because case assignment is generally considered to be a morpho-syntactic phenomenon. Given the contextual variability in case, I call constructions as in (1) *context-dependent case connectivity sentences* (*CDCC sentences*).[4]

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[2] Section **??** introduces the case theory this paper adopts as well as other case assignment mechanisms.

[3] There exist copular sentences with nominative or dative case, whose availability is unexpected to the standard case theories. In fact, Ito's utterances in (1) and (2) allow nominative case as well, and the same sting of words as Ito's utterance in in (1) and (2), which follows the same utterance said by Eto, can allow both nominative and dative case in addition to accusative case in the following utterance context.

(i)   [Context: Ito is a teacher at an art school where students have a chance to receive an award by drawing a picture every month. He is supposed to choose three students to give an award, and report who he will give an award at the beginning of the monthly teacher meeting.]

Given that the proposed analysis on the accusative case can extend to the analysis of the other cases, the rest of this paper focuses on sentences with accusative case.

[4] *Connectivity effect* is a descriptive term for a phenomenon where "an element is present or interpreted in a way that is normally associated with a certain syntactic configuration

Sets of sentences as in (1) and (2) raise questions such as:

(3) a. What kind of contexts allow the accusative case in Japanese copular sentences?
     b. How can the accusative case in Japanese copular sentences be licensed?
     c. How can utterance contexts affect the availability of the accusative case?

The goal of this paper is to answer the questions in (3). Specifically, after I answer question (3a), I demonstrate that the questions in (3b) and (3c) can be answered by a line of approach to connectivity sentences, which I call the *Question in Disguise Theory* following Sharvit (1999). The theory was formulated based primarily on pseudoclefts as in (4). In what follows, *XP1* and *XP2* indicate the grammatical subject and its predicate.

(4) (Iatridou & Varlokosta 1998)
     [$_{XP1}$was Hans _ essen wollte] war [$_{XP2}$**einen** Apfel]
         what H   eat   wanted was   an.ACC apple
     'What Hans wanted to eat was an apple.'

Descriptively, in (4), the nominal in XP2 is associated with the gap position in XP1, which is represented as "_"; the object of *essen* 'eat' in XP1 is *einen Apfel* 'an apple' in XP2. Also, the case associated with the nominal in XP2 corresponds to the case that would be assigned to the element in the gap position. However, it is not obvious how the accusative case in (4) is licensed because *einen Apfel* does not exist in the local domain of *essen*.

The Question in Disguise Theory provides a solution. The theory claims that XP1 in connectivity sentences denotes a question (e.g., ⟦what did Hans want to eat?⟧ in (4)), and XP2 denotes its answer, where some meaning stems from the elided phrases (e.g. Ross 1972, Dikken et al. 2000, Schlenker 2003).[5] For example, given that *einen Apfel* is understood as an object Hans wanted to buy, XP2 in (4) is assumed to have the structure in (5), where the clausal ellipsis is licensed under semantic identity with the question meaning denoted by XP1 (e.g., Weir 2014).[6]

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seemingly without that configuration obtaining" (Mikkelsen 2011, 14). Given this, the term *case connectivity effect* is defined as a phenomenon where some morphological case is available seemingly without a certain case licensing condition being satisfied.

[5] The logical form and meaning of pseudoclefts will be elaborated in Section **??**.
[6] The analysis of clausal ellipsis this paper adopts will be elaborated in Section **??**.

(5)   [$_{XP2}$ ~~Hans wollte~~   [**einen** Apfel] ~~essen~~]
          H   wanted an.ACC apple eat
       'Hans wanted to eat an apple.'

Note that with the assumption of the covert structure, the availability of the accusative case in (4) can be explained as any standard case theories explain the availability of accusative case in ordinary transitive sentences.

However, the theory, which was formulated based primarily on pseudo-clefts, cannot directly extend to the CDCC effect in copular constructions as in (1). In light of the theory, it is possible that *three freshmen* in (1) is XP2, and that *three freshment* is underlyingly a full clause as in (6), given that (1) asserts that *Ito saw three freshmen*.

(6)   [$_{XP1}$ __] [$_{XP2}$ ~~watasi-wa~~ [itinensee-o   san-nin] ~~mita~~] desu
               I-TOP   freshman-ACC 3-CL   saw   COP
       '[$_{XP1}$ __] is [$_{XP2}$ ~~I saw~~ three freshmen].'

The assumption of the covert structure as in (6) explains the accusative case licensing. However, there remain many problems. For example, CDCC sentences seem to lack a linguistic antecedent to enable ellipsis in XP2 due to the lack of overt expression in XP1; remember that in (4), XP1 serves as a linguistic antecedent, and its meaning enables the meaning of the elided expressions to be recovered. Also, the theory does not straightforwardly explain the contextual variability in case, either. Thus, CDCC sentences are more puzzling than the previously studied connectivity sentences. However, the paper demonstrates that the CDCC effect follows for free from the Question in Disguise Theory and other independently motivated ingredients once it is shown that CDCC sentences involve a covert pronoun *pro* of a question type in XP1. I will argue that the implementation of the question-denoting pro can solve the "lack of linguistic antecedent" problem and explain how non-linguistic utterance context affects the availability of the accusative case.

This paper contributes to the linguistic literature in the following respects. In addition to the empirical and theoretical contributions to the literature of Japanese copular constructins, the paper supports the Question in Disguise Theory over another line of approach to connectivity sentences. In other words, this paper suggests that hidden syntax offers a general solution to connectivity puzzles in copular constructions (e.g. Ross 1972, Dikken et al. 2000, Schlenker 2003). Moreover, the paper yields insights into the study of so-called *antecedentless ellipsis,* i.e., elliptical constructions seemingly without a linguistic antecedent; I suggest that some antecedent-

less elliptical construcitons indeed have a linguistic antecedent, which is a question-denoting pronoun.

The organization of this paper is as follows. Section 2 first puts forward a descriptive generalization as to when the accusative case is available. Section **??** then sharpens the puzzles of CDCC sentences with reference to case assignment mechanisms and two lines of approaches to connectivity sentences. In Section 3, I explain how the the Question in Disguise Theory can be extended to CDCC sentences even though it does not seem to explain the CDCC effect at first glance. Finally, Section 5 summarizes.

2 Contextual variability and case theories

The goal of this section is twofold: (i) to answer the question in (3a), which concerns when the accusative case is available in CDCC sentences, and (ii) to demonstrate that the standard case assignment mechanisms do not seem to answer the question in (3c), which concerns how the non-linguistic utterance context affects the availability of the accusative case.

This paper submits (7) as an answer to the question in (3a).

(7)   The accusative case in CDCC sentences is available only when the context supports accommodation of a question which:

    a.   if expressed linguistically, contains an accusative case-marked wh-item, and

    b.   disambiguate the meaning of the CDCC sentence.[7]

I call wh-questions satisfying the conditions in (7) wh_{Acc}-*question*.

Given (7), it can be stated that while (1) allows the accusative case, (2) does not, because only (1) supports accommodation of a wh_{Acc}-question as in (8).

(8)   Ito-wa **dare-o** mimasita-ka?
    S-Top who-ACC saw-Q
    'Who did Ito see?'

The question in (8) involves an accusative case-marked wh-item. Also, the question is readily accommodated because every teacher knows that Ito

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[7] The condition in (7b) can be rephrased as follows in considering the distribution of the accusative case in CDCC sentences in the main text; *which the CDCC sentence is understood as answering.* While the rephrased condition may sound more specific, it undergenerates once one takes account of interrogative CDCC sentences. See footnote 30.

monitors the rooftop and that he is supposed to report who went there at the beginning of each meeting, and (1) is uttered at the beginning of a meeting. Moreover, the question disambiguates the meaning of (1); the sequence of words in (1) *per se* is ambiguous in the sense that *three freshmen* can be understood as individuals someone scolded, individuals who will quit the school next month, and so on. But the wh$_{Acc}$-question accommodated in the context in (1) disambiguates the meaning of the sentence, enabling the listeners to be aware that *three freshmen* in his utterance are individuals he saw at the rooftop.

In contrast to (1), it is difficult to envision an accommodated wh$_{Acc}$-question in (2); the most natural accommodated wh-question that clarifies the meaning of (2) would be (9). But (9) does not contain an accusative case-marked wh-item. Thus, it is not a wh$_{Acc}$-question.

(9)   **dare-ga/*o**   yamemasita-ka?
        who-NOM/ACC quit-Q
        'Who quit?'

In this way, the availability of the accusative case in CDCC sentences is governed by the conditions in (7).[8]

Now that we better understand the contextual variability, I demonstrate that none of the standard case assignment mechanisms explains the contextual variability given a transparent syntax of CDCC sentences. As illustrated below, despite differences among each mechanism, they all have in common that the availability of a case is determined by a certain syntactic configuration in which the case-marked element occurs. Therefore, none of them seems to explain the contextual variability and/or the way accusative case is licensed.

First, we consider the case theory based on Chomsky's (1995) Agree relation, which this paper adopts. In this theory, a nominal receives accusative case as a by-product of φ-feature agreement between the nominal and a φ-complete light verb *v*, i.e., a *v* whose specifier hosts an agent. For this reason, it is informally claimed that a transitive verb assigns accusative

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[8] Wh-questions such as *who did Ito see?* have presuppositions such that the interlocutors know that Ito saw someone, and sentences with an indefinite expression such as *Ito saw someone* provoke a question such as *who did Ito see?*. In this way, wh-questions and sentences with an indefinite expression are closely related. Thus it is possible to rephrase the generalization in (7) with reference to presupposed sentences with an indefinite expression as well. However, the wording in (7) is chosen because the generalization fits better to the analysis of CDCC sentences introduced in Section 3.

case. Given this, consider again the CDCC sentence in (1), which is repeated below as (i).

(10)   itinensee-**o**   san-nin desu
        freshman-ACC 3-CL   COP
        'three freshmen.'

The sentence does not seem to involve any verb that is able to assign accusative case. It should be noted that the copula is assumed to be a raising verb (e.g., Stowell 1978; Heggie 1989) or unaccusative verb (e.g., Mikkelsen 2005), so it does not assign case. Besides, even if copula assigns accusative case, there remains a question as to why utterance contexts affect the availability of the accusative case. Thus, under the case theory in question, the questions in (3b) and (3c) are difficult to answewr.

Another major case theory in the literature is called *dependent case theory* (e.g., Marantz 1991; Baker 2015). In the case of Nominative-accusative languages such as Japanese, the theory claims that whether a nominal can receive accusative case is *dependent* on its position relative to other nominals within some syntactic domain such as VP and TP/CP. For instance, suppose that two nominals appear within the same domain and one of them c-commands the other one. In this case, if the higher nominal receives unmarked nominative case, the lower nominal receives accusative case, whose availability *depends on* the presence of nominative case-marked nominal. In light of this, consider (i) again. There seems to be no nominative case-marked nominal. Thus, it is not clear why the nominal in (i) may bear accusative case. Also, even if (i) involves a covert nominative case-marked argument that c-commands *three freshmen* within the same domain, the contextual variability does not seem to be explained; on this assumption, the string of words in (i) should always be able or unable to show accusative case, regardless of the utterance context. In this way, the questions in (3)b-c are difficult to answer under the dependent case theory as well.

Finally, I introduce some case assignment mechanisms that are specific to Japanese. For example, some researchers claim that accusative case in Japanese is an inherent case that is always linked to a particular θ-role of a verb licensing it (Takahashi 1993; Fukui & Takano 1998). Also, other researchers pursue the hypothesis that accusative case in Japanese is licensed when its associated nominal merges with a verb or a higher functional head (without agreement between them unlike in the case theory based on Agree relation) (e.g., Saito 2007; Takano 2011). Crucially, those mechanisms all share the idea that cases are licensed by a verb or functional head v. So on

the assumption that copula does not assign case, they cannot explain the availability of the accusative case in CDCC sentences, let alone their contextual variability. In this way, the questions in (3b) and (3c) are difficult to answer in those case assignment mechanisms as well.

As shown above, given the transparent syntax, none of the standard case assignment mechanisms explain how the utterance context affects the availability of the case and/or how the accusative case in CDCC sentences can be licensed. This result then leads us to the question as to whether we should modify the current case theory and/or reanalyze the transparent syntactic structure of CDCC sentences. In fact, both options have been pursued to explain the case connectivity effect in other type of sentences, and the Question in Disguise Theory adopts the second option. As shown below, neither approach straightforwardly explains the CDCC effect. However, the next section demonstrates that the Question in Disguise Theory can indeed answer (3b) and (3c). After demonstrating how the theory answers those two questions, I will introduce the other line of approach to connectivity effect, which attempts to modify the current case theory, and present a major problem lying in the approach.

3   Question in Disguise Theory

This section demonstrates that whereas the Question in Disguise Theory does not straightforwardly explain the CDCC effect, it indeed explains it once CDCC sentences are properly diagnosed to involve a covert pronoun of a question type. Thus, this section answers the questions in (3b) and (3c), repeated below as (11b) and (11c).

(11)   a.   What kind of contexts allow the accusative case in Japanese copular sentences?
         b.   How can the accusative case in Japanese copular sentences be licensed?
         c.   How can utterance contexts affect the availability of the accusative case?

This section is organized as follows. Subsection 3.1 first overviews the Question in Disguise Theory in more detail than in Section 1. Subsection 3.2 then discusses the challenges posed to the theory by CDCC sentences. In Section 3.3, I demonstrate that despite the apparent challenges for the theory, it indeed explains the CDCC effect.

3.1   *Overview of the Question in Disguise Theory*

This subsection elaborates the Question in Disguise Theory, which attempts to solve connectivity effects by revising the transparent syntactic structure of the connectivity sentences.

Section 1 briefly explained how the Question in Disguise Theory accounts for the case connectivity effect in German pseudocleft, which is repeated below.

(12)   (Iatridou & Varlokosta 1998)
          [$_{XP1}$ was   Hans _ essen wollte] war [$_{XP2}$ **einen**   Apfel]
              what H   eat   wanted was   an.ACC apple
          'What Hans wanted to eat was an apple.'

Section 1 illustrated that XP2 in (12) can show accusative case despite the lack of any overt accusative case licenser in its local domain because XP2 is indeed a full clause disguised by a clausal ellipsis as shown in (13); note that *essen* is able to assign accusative case to *einen Apfel*.
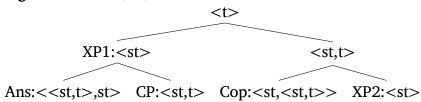
(13)   [$_{XP2}$ ~~Hans wollte~~   [**einen** Apfel] ~~essen~~]
              H   wanted an.ACC apple eat
          'Hans wanted to eat an apple.'

Although Section 1 also mentioned that the ellipsis is licensed under the semantic identity with the question meaning denoted by XP1, it did not elaborate the analysis of clausal ellipsis any further for ease of exposition. Thus, the rest of this subsection discusses the clausal ellipsis theory this paper adopts in more detail. However, I first explain the logical form and meaning of the pseudocleft in (12) under the Question in Disguise Theory because the meaning of the wh-question denoted by XP1 is relevant to the ellipsis theory.

First, as for the question meaning in XP1, I adopt a Hamblin/Karttunen semantics, according to which wh-item is a type of existential quantifier and wh-questions denote the sets of propositions that can serve as possible answers to the questions. Then, the CP *was Hans essen wollte* in (12) denotes $\lambda p_{st}.\exists x_e[p = \lambda w_s.$ *Hans wanted to eat x]*. But given that the copula equates XP1 and XP2 (e.g., Sharvit 1999), we need another ingredient to complete the semantic composition of (12) because the set of possible answers to the question *what did Hans want to eat?* cannot be equated with its answer proposition *Hans wanted to eat an apple.* So I assume that Dayal's

(1996) answer operator *Ans* first composes with the CP, and the resulting expression, i.e., XP1, composes with the rest of the sentence as in (14).

(14)   **Logical form of (12)**

<t>
XP1:<st>   <st,t>
Ans:<<st,t>,st>   CP:<st,t>   Cop:<st,<st,t>>   XP2:<st>

In (14), Ans maps the question extension of CP to the true answer proposition that is strongest with respect to the entailment relation with other answers in the set of possible answers denoted by the CP. Then, the resulting XP1 in (14) is equated with XP2 by the copula, deriving the approximate meaning of the sentence: *the strongest true answer to the question "what did Hans want to eat?" is the proposition "Hans wanted to eat an apple"*.

Next, I explain the ellipsis theory this paper adopts. First, it can be assumed that in (13), XP2 is a projection such as FocusP, whose head bears an [E]-feature to license ellipsis; that is, the feature instructs the PF component not to overtly realize the materials in the clausal complement of $Focus^0$ except for the focused expression (i.e., the expression with a new information) (e.g.,Morgan 1973; Napoli 1982; Abe 2015; Kimura & Narita 2019 ;Ott & Struckmeier 2018).[9]

In addition to this ellipsis licensing condition, the legitimate ellipsis needs to satisfy a so-called recoverability/semantic identity condition in order to ensure that the meaning of the elided phrase can be recovered by the hearer (e.g., Fiengo & Lasnik 1972). This paper adopts the semantic identity condition to the effect that the meaning of a wh-question can recover the meaning of an elided clause which answers the question (e.g., Ginzburg & Sag 2000; Reich 2007; Weir 2014). Then, the ellipsis in (13) satisfies the semantic identity condition because XP1 in (12), which denotes a wh-question, can recover the meaning of XP2. But the rest of this subsection elaborates the semantic identity condition since it is important to be able

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[9] This is just one type of analysis called *in-situ analysis,* and there are other lines of analyses that assume the movement of the remnant phrase in either the narrow syntax (e.g., Merchant 2004; Nishigauchi & Fujii 2006) or in the PF component (e.g., Aoun & Benmamoun 1998;Sauerland & Elbourne 2002; Weir 2014) so that elided material becomes a single syntactic constituent. Given that the content of this paper does not rely on any particular analysis, and that Japanese does not have an obligatory focus movement, the paper adopts the in-situ approach. I leave for future analysis which line of analysis the CDCC sentences support.

to examine whether the condition is properly satisfied when addressing the presence of the elided phrases in connectivity sentences.[10]

In this paper, I follow Weir's (2014) semantic identity in (15), where *QUD stack* is defined as "the ordered set of all as-yet unanswered but answerable, accepted questions"(Roberts 1996, 15).

(15)   (Weir 2014)
        A CP is RECOVERABLE iff it is QUD-GIVEN, that is, iff there exists a [question] Q on the QUD stack such that $\bigcup Q \Leftrightarrow \bigcup [\![E]\!]^F$

For illustration of (15), consider the following English pseudocleft in a toy model where there are only three things that can be eaten, *apple A*, *apple B*, and *apple C*; Hans bought *apple A* in worlds w_0, w_1, Hans bought *apple B* in worlds w_1, w_2, and Hans bought *apple C* in worlds w_2, w_3 (F is a privative focus feature).

(16)   [$_{XP1}$ What Hans ate] was [$_{XP2}$ ~~Hans ate~~ [*apple A*]$_F$].
        'The strongest answer to the question "what did Hans eat?" is "Hans ate *apple A*".'

Under the Question in Disguise Theory, *What Hans ate* denotes a question *what did Hans eat?*, and XP2 denotes a propositional answer to the question. In the answer clause in XP2, *Hans ate* is assumed to be elided in conformity with Weir' (2014) semantic identity effect as follows. First, given a Hamblin/Karttunen semantics of questions, the meaning of the question in XP1 is a set of possible answers to the question (17a), i.e., a set of sets of worlds where the possible answers to the question are true (17b).

(17) $[\![$ what did Hans eat? $]\!]$
        a.   = {Hans ate *apple A*, Hans ate *apple B*, Hans ate *apple C*}
        b.   = {{w_0,w_1}, {w_1,w_2}, {w_2,w_3}}

Then the generalized union of (17b) is the set of worlds {w_0,w_1,w_2,w_3}.

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[10] In addition to the semantic identity condition, it is well-known that clausal ellipsis must satisfy some syntactic identity condition as well (e.g., Fox 1995; Chung 2013; Weir 2014). Despite differences among the proposed syntactic identity conditions, they all have in common that clausal ellipsis must have some isomorphic relation between the elided phrases and the antecedent clause. In (12), XP1, which is the antecedent for the the elided clause in (13), have phrases that are isomorphic to the elided phrases *Hans*, *wollte* and *essen*. So the ellipsis clearly satisfies any syntactic identity condition, and does not favor any particular condition. But it is not the case when addressing CDCC sentences. So I will elaborate the syntactic identity condition in more detail when we discuss CDCC sentences.

As for what corresponds to $\bigcup[\![\text{E}]\!]^F$ in (16), the focus semantic value of the elided clause is the set that involves the proposition *Hans ate [apple A]$_F$* as well as its alternative propositions where F-marked element in the original proposition is replaced by a different element with the same semantic type.[11] Given the toy model introduced above, the set in question is identical to set of propositions in (17). Then it is clear that the generalized union of $[\![\text{E}]\!]^F$ is identical to $\bigcup Q$ in (16). In this way, the clausal ellipsis in (16) satisfies Weir's (2014) semantic identity condition, and the same holds for the German pseudocleft in (12).[12]

To sum up, this subsection explained how the Question in Disguise Theory analyzes the meaning of case connectivity sentences, and how the ellipsis in XP2 is licensed. While the theory treats the *pseudocleft* case connectivity sentences well, the next section shows that the theory does not straightforwardly explain the CDCC effect.

3.2   Challenge for the Question in Disguise Theory

This section highlights the challenges posed to the Question in Disguise Theory by CDCC sentences.

Consider first the CDCC sentence in (1) again (18).

(18)   [Context: Ito is a teacher and is in charge of monitoring the rooftop where students are disallowed to go. He is supposed to report at the beginning of the monthly teacher meeting who went there.]
         Eto: We'll start the meeting. Teacher Ito, please.

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[11] This computation mechanism of the alternative propositions is simplified; for example, the domain of alternatives must be restricted with reference to the lexicon in order to exclude propositions such as *Hans ate **Hans***, which does not exist in the set of possible answers to the question *what did Hans eat?* in (17), even though *Hans* is of <e> as *apple A* is (e.g., Blok & Eberle 1999;Fox & Katzir 2011).

[12] But the German pseudocleft in (12) is more complicated in terms of how the semantic identity condition is satisfied due to the quantified expression *einen Apfel* in XP2; the set of propositions that are alternative to *Hans wollte einen Apfel essen* 'Hans wanted to eat an apple' is assumed to involve propositions such as *Hans wollte **jeden** Apfel essen* 'Hans wanted to eat **every** apple', which differ from the original proposition only in that a different quantifier precedes *Apfel*. However, such propositions do not seem to exist in the set of possible answers to the question *what did Hans want to eat*, which is denoted by *was Hans essen wollte* in XP1 in (12).

Weir (2014) provides a possible explanation to the effect that wh-items are polymorphic in type, and can range over quantifiers as well as entities. I refer the reader to Weir (2014) for more potential problems that may arise in addressing the focus semantic value of propositions with a quantifier.

> **Ito:**   itinensee-**(o)** san-nin desu
>   freshman-Acc 3-CL   Cop
>   'three freshmen.'

Section 1 mentioned that under the Question in Disguise Theory, the sentence in (18) can be assumed to have the structure in (19), given that (18) asserts that Ito saw three freshmen.

(19)   [$_{XP1}$ __] [$_{XP2}$ ~~watasi-wa~~ [itinensee-o   san-nin]$_F$ ~~mita~~] desu
                   I-TOP   freshman-ACC 3-CL   saw   COP
        '[$_{XP1}$ __] is [$_{XP2}$ ~~I saw~~ [three freshmen]$_F$].'

With the structure in (19), it is possible to explain how the accusative case in (18) can be licensed; the elided transitive verb can assign the case to the remnant phrase.

However, there are three problems with the structure in (19), which are, to some extent, all related to the linguistic antecedent requirement; that is, elided phrases require linguistic expressions as their antecedents (e.g., Hankamer & Sag 1976). The first problem is that there seems to be no linguistic antecedent for the ellipsis in XP2 intra- or extra-sententially. Thus, the ellipsis in XP2 seems illegitimate.

Second, On the assumption that the copula in CDCC sentences are two-place predicate as the copula in pseudoclefts (e.g., Sharvit 1999), (19) requires an argument in XP1 in addition to XP2. But no overt expression occupies that position. Given that XP1 in pseudoclefts is a question-denoting phrase, one may consider that an elided question-denoting phrase occupies XP1. However, this hypothesis is unlikely to be true because there seems no linguistic antecedent for such an ellipsis. It should be noted that whereas the context in (18) accommodates a wh$_{Acc}$-question *who did Ito see?*, an accommodate question is not a syntactic object. Thus, wh$_{Acc}$-question cannot function as a linguistic antecedent for clausal ellipsis.[13] Therefore, it is not clear why sentence (18), which seems to lack an argument for the copula, is grammatical.[14]

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[13] See (23) below, which supports that wh$_{Acc}$-question is not a syntactic object.

[14] The exact nature of copula is not clear cross-linguistically. Thus, one may consider the copula in CDCC sentences to be a one-place predicate rather than a two-place predicate. However, such an assumption raises a question. In (19), no phrase is moved out of XP2. So if the copula in (19) is a one-place predicate such as English raising verb *seem*, the sentence requires an expletive subject to satisfy the EPP feature, as in English sentences such as ***it** seems [that Ken is a student]* (as opposed to **seems [that Ken is a student]*). However, Japanese is proposed *not* to possess a phonologically null expletive (e.g., Heycock 1993).

Third, the structure in (19) does not explain how the non-linguistic utterance context can affect the availability of the accusative case. Remember again that the wh$_{Acc}$-question *who did Ito see?* cannot serve as a linguistic antecedent for clausal ellipsis. Thus, it is not possible to claim that the presence of the wh$_{Acc}$-question *directly* determines the structure of XP2. In this way, the Question in Disguise Theory does not straightforwardly explain the CDCC effect.

Before moving on to the next subsection where I propose how the Question in Disguise Theory explains the CDCC effect, this subsection discusses more about the linguistic antecedent requirement for ellipsis. This is because, as mentioned above, the aforementioned problems of the Question in Disguised Theory are all based on the linguistic antecedent requirement to some extent. Also, there indeed exist some elliptical phenomena seemingly without a linguistic antecedent. Moreover, Weir (2014), whose identity conditions for ellipsis are adopted in this paper, argues against the presence of the linguistic antecedent requirement. Thus, it is important to show the validity of the linguistic antecedent requirement.

One type of examples which one may take to deny the linguistic antecedent requirement appears to elide particular expressions as in (20).

(20)   (Merchant 2004)
         [Context: As an invitation to dance]
         Shall we?

The utterance in (20) is grammatical with the meaning *shall we dance?* even though there seems to be no linguistic antecedent for elided expressions such as [$_{VP}$ *dance*].

Merchant (2004) claims that some expressions can be elided exceptionally without a linguistic antecedent; those exceptional expressions are a demonstrative (e.g., *this/that*, *he* in a demonstrative use), expletive subject, copula, and VP *do it*. Given this, he claims that (20) is grammatical with the intended meaning because the elided VP is *do it* which does not require a linguistic antecedent.

Importantly, however, the ellipsis of ordinary verbs such as *saw*, which is supposed to be elided in the CDCC sentence in (19), still requires a linguistic antecedent. The difference in the requirement of a linguistic antecedent between the VP *do it* and VPs with an ordinary verb such as *saw* can be confirmed by examples such as (21).

Therefore, if one assumes the copula to be a one-place predicate, it is still difficult to explain the grammaticality of **??**.

(21)   (Merchant 2004)
        [Context: As an invitation to dance]
        #Would you ~~like/care to dance~~?

In (21), the VP *like/care to dance* seems to be as contextually salient as the VP *do it,* but (21) is infelicitous unlike (20). According to Merchant (2004), this is because *like/care to dance* cannot be elided without a linguistic antecedent or substituted by *do it* because it is a stative verb (i.e., *Would you do it? ≠ Would you like/care to dance?*). Therefore, the difference in felicity between (20) and (21) arises, and exceptional ellipses as in (20) do not support that the ellipsis in CDCC sentences is possible without a linguistic antecedent.

Although sentences such as (21) suggest that ordinary verbs can never elide without a linguistic antecedent, there seems to be an exception. The Greek utterance in (22a) is such an example which is uttered in ordering coffee in a cafe.

(22)   (Merchant 2004)

        a.   (Enan) **kafe**   (parakalo)!
             a   coffee.Acc please
             '(A) coffee (please)'
        b.   Ferte   mou (enan) **kafe**   (parakalo)
             bring.IMP me   a   coffee.Acc please
             'Bring me (a) coffee (please).'

In the given context, (22a) has the same meaning as (22b). Merchant (2004) considers (22a) to be the strongest potential candidate for a formulaic or idiomatic expression in Hankemar's (1978) sense; that is, the sentence has not undergone any transformation such as deletion. However, the presence of accusative case in (22a) suggests the sentence involves an elided *Ferte (mou)* 'bring (me)' in the narrow syntax so that the verb assigns accusative case to *kafe* as in (22b). Then, one may claim that the ellipsis in CDCC sentences also does not require a linguistic antecedent due to the 'sufficient' pragmatic context, which could be assumed to be the presence of wh$_{Acc}$-questions.[15]

It should be noted however that extending the pragmatic account to CDCC sentences causes more radical revision of the current standard analysis of ellipsis licensing. Hankamer (1978) reports that phonologically null

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[15] But any hypothesis assuming ellipsis in (22a) needs to explain why *like/care to dance* in (21) are not allowed to elide without a linguistic antecedent.

anaphor is not subject to the linguistic antecedent requirement only if the anaphor is used in an *illocutionarily charged utterance*, which expresses exhortations, commands, pleas, warnings, exclamations of various kinds, or polite formulas. In other words, we do not find pragmatically controlled null anaphors in ordinary declarative sentences, which effect the transmission of information. The ungrammaticality of (23) provides an illustration.

(23)   [Context: John and Mary are watching a detective drama where two police officers are running after a suspect. Running into a dead-end, the suspect turns around, and they face each other. The suspect gets his gun out of his pocket, and this episode ends with a sound of gunshot. John and Mary do not know who the suspect shot. But since Mary is a police officer, she is worried if the suspect shot a police officer. Looking at Mary being worried, John says:]
Maybe *(the suspect shot) [himself]$_F$

The utterance in (23) is ungrammatical when *the suspect shot* is not pronounced. It is assumed that the sentence is ungrammatical due to the violation of Principle A of the Biding Theory; (23) cannot be understood to involve the elided *the suspect shot* due to the lack of a linguistic antecedent, and thus, the reflexive cannot be bound by its antecedent.[16] It should be noted that the question *who did the suspect shoot?* can be readily accommodated in (23), and yet the sentence is ungrammatical. Moreover, if Mary says to John, "who did the suspect shoot?" in the context in (23), John's utterance *Maybe himself* is indeed grammatical. Thus, these facts suggest that clausal ellipsis requires a linguistic antecedent, and accommodated questions are not sufficient.[17] It then follows that the clausal ellipsis in CDCC

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[16] (name withheld) pointed out that the analysis in the main text predicts that a fragment utterance such as (i) which does not involve an anaphor is grammatical. In fact, this prediction is borne out (i).

(i)   [Context: same as the one in (23) except that John and Mary know that one of the officers is taller than the other one.]
Maybe the taller officer.

It is possible that whereas *the taller officer* is interpreted as *the suspect shot the taller officer*, the utterance does not involve deletion. The crucial difference between (i) and (23) is that only the latter example requires an elided syntactic phrase because the reflexive must be licensed. See also (i) in footnote 18, which patterns in the same way as (i) above.

[17] The facts are consistent with the assumption that the accommodated wh$_{Acc}$-question is not a syntactic object.

sentences should not be allowed without a linguistic antecedent because they are ordinary declarative sentences as well.[18]

To sum up, based on the linguistic antecedent requirement, this subsection demonstrated that the Question in Disguise Theory does not straightforwardly explain the CDCC effect; the theory needs to explain what occupies the position in XP1, how the ellipsis in XP2 is possible without a linguistic antecedent, and how the non-linguistic utterance context can affect the availability of the accusative case.

3.3 *Proposed structure of CDCC sentences*

This subsection demonstrates that the Question in Disguise Theory can indeed explain the CDCC effect 'for free' once XP1 in CDCC sentences is properly diagnosed to hold a covert pronoun *pro* of type <st,t>. I propose that Ito's utterance in (18) has the following structure.[19]

(24)   [Context: Ito is a teacher and is in charge of monitoring the rooftop where students are disallowed to go. He is supposed to report at the beginning of the monthly teacher meeting who went there.]
     Eto: We'll start the meeting. Teacher Ito, please.
     Ito: [$_{XP1}$ **pro**] [$_{XP2}$ ~~watasi-wa~~ [itinensee-o   san-nin]$_F$ ~~mita~~] desu
                     I-TOP   freshman-ACC 3-CL   saw   COP
          '[$_{XP1}$ pro] is [$_{XP2}$ ~~I saw~~ [three freshmen]$_F$].'

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[18] Weir (2014) argues against the linguistic antecedent requirement with examples as in (i).

(i)   (Stainton 1998, 314-315)
         [Context: I'm at a linguistics meeting, talking with Andy Brook. There are some empty seats around a table. I point at one and say:]
         An editor of *Natural Language Semantics*.

Although there seems to be no linguistic antecedent for such an ellipsis, Weir (2014) claims that (i) is preceded by an elided expression ~~that chair is for~~, whose meaning can be recovered by the meaning of a contextually accommodated question "who is that chair for?". Note that ~~that chair is for~~ an editor of *Natural Language Semantics* is a declarative sentence and elided expressions such as *chair* and *for* do not belong to Merchant's (2004) list of expressions that can elide without a linguistic antecedent.

However, (i) does not involve any material that needs to be syntactically licensed (e.g., a case in CDCC sentences and a reflexive pronoun in (23)). Thus, it is possible that (i) does not involve any elided material, and its propositional meaning can be recovered pragmatically, as suggested by other researchers (e.g., Stainton 1998).

[19] The ellipsis in XP2 is obligatory as in other elliptical phenomena such as comparative deletion and fragment answers. (e.g., Napoli 1983, Merchant 2004).

In (24), ~~mita~~ assigns accusative case to the remnant. Also, the presence of pro satisfies the argument structure of the two-place predicate copula in CDCC sentences. Thus, what remains to be explained is (i) what the identity of pro is, (ii) how the ellipsis in XP2 can be licensed, and (iii) how the non-linguistic utterance context can affect the availability of the accusative case.[20]

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[20] One thing that is worth pointing out here is that it is not obvious whether *three freshmen* in (24) is XP2; it could be the case that *freshmen* is XP1 and *three* is XP2 as shwon in (i).

(i)   [$_{XP1}$ itinensee-o]   [$_{XP2}$ san-nin] desu
                freshman-ACC   3-CL   COP
           '[$_{XP1}$ freshmen] are [$_{XP2}$ three].'

Whereas the use of *three* in the English translation is unnatural, the structure in (i) is not obviously wrong, due to examples such as (ii) (p.c. (name withheld)).

(ii)   [$_{XP1}$ sotugyoosee-wa]   [$_{XP2}$ san-nin] desu
                graduating.student-TOP   3-CL   COP
           '[$_{XP1}$ The graduate student] is [$_{XP2}$ three].'

Sentence (ii) is grammatical with the meaning: *the number of graduating students is three*. It can be assumed that *san-nin* denotes a function such as λx_e. *the number of x is three*.

However, there are a couple of arguments against the structure in (i). First, using the denotation of *san-nin* above in (i) presupposes that Ito saw freshmen (rather than sophomore students). But (19) can be uttered without such a presupposition. Second, when an accusative case-marked XP precedes the other XP in copular sentences, those XPs need to be contrasted with a contextually salient expression (iii).

(iii)   [Context: Ken and Ai are working in a restaurant, which always has a fixed
                menu for lunch and dinner. Ken knows that they will provide rice balls and
                ramen today, but doesn't remember which food is for which meal (i.e., lunch
                and dinner). So he asks Ai if the lunch is rice balls. Then Ai responds as follows;]
                hai, [onigiri-**o**]   [hirumesi] desu
                yes rice.ball-ACC lunch   COP
                'Yes, it is rice balls that we provide for the lunch '

In the context in (iii), where two XPs, *rice balls* and *lunch*, are contrasted with *ramen* and *dinner*, the sentence is grammatical. In contrast, (iii) sounds unnatural when a father says it as a response to his son's question such as *what is today's dinner?*.
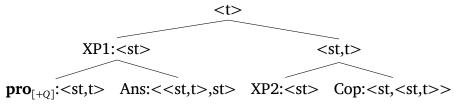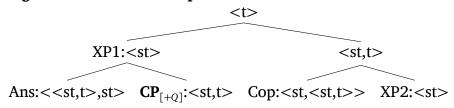
Currently, the most plausible analysis of (iii) is that *lunch* is XP1 and *rice balls* has moved from the clause in XP2 which is disguised by ellipsis, as in (iv), where the clausal ellipsis is licensed under identity with the overt wh-question uttered by Ken. However, it remains to be explained why the expression lying the position of *lunch* in (iii) needs to be contrasted with contextually salient expression.

(iv)   yes, [rice balls]$_1$ [$_{XP1}$*lunch*] [$_{XP2}$ ~~we~~ t$_1$ ~~provide~~] Copula

I propose that pro in (24) is a covert free pronoun of type <st,t> whose interpretation is determined by the contextual variable assignment[21]; in the context in (24), pro is assumed to bear an index such as *1* at LF, and the utterance context serves as fixing a partial function which maps the index *1* into the wh$_{Acc}$-question in (8) (i.e., meaning of the question *who did Ito see?*).[22] What this means is that CDCC sentences can be analyzed in the same way as pseudoclefts with the case connectivity effect; the crucial difference between the two constructions is only whether XP1 holds a covert question-denoting pro or an overt question-denoting CP, as shown in their schematic logical forms in (25).[23]

(25)   a.   **Logical form of Japanese CDCC sentences**

<t>

XP1:<st>   <st,t>

pro$_{[+Q]}$:<st,t>   Ans:<<st,t>,st>   XP2:<st>   Cop:<st,<st,t>>

        b.   **Logical form of German pseudoclefts**

<t>

XP1:<st>   <st,t>

Ans:<<st,t>,st>   **CP**$_{[+Q]}$:<st,t>   Cop:<st,<st,t>>   XP2:<st>

In (24), the context accommodates a wh$_{Acc}$-question *who did Ito see?*. Then, given a Hamblin/Karttunen semantics of questions, the value for pro is set as the denotation of the wh$_{Acc}$-question: $\lambda p_{st}.\exists x_e [p = \lambda w_s.$ *Sato saw x]*. This extension value is taken by Ans, and XP1 denotes the true answer proposition that is strongest with respect to the entailment relation with other answers in the set of possible answers denoted by pro. Finally, the copula equates the denotations of XP1 and XP2, and the CDCC sentence in (24)

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[21] This does not mean that pro in CDCC sentences is always a free variable pronoun. Section 3.3.2 shows that pro can be so-called E-type pronoun that has an internal structure when appearing in the scope of a quantified expression.

[22] It should be noted that pronouns do not need a linguistic antecedent to has its meaning determined, unlike elided phrases (e.g., Hankamer and Sag 1976). See also **??**.

[23] Since Japanese is a head-final language, Ans and copula appear to the right of pro and XP2 in (25a).

approximately means: *the strongest answer to the question "who did Ito see?" is the proposition "I saw three students in class A".*[24,25]

In addition to "filling out" the position of $CP_{[+Q]}$ in (25b) and making the semantic composition of CDCC sentences parallel with that of pseudoclefts, the question-denoting pro plays an important role in enabling the ellipsis in XP2; as the meaning of $CP_{[+Q]}$ in (25b) can satisfy Weir's (2014) semantic identity condition for the ellipsis in XP2, the meaning of $pro_{[+Q]}$ in (25a) does so as well.

When Section 3.1 explained how the ellipsis in the German pseudocleft is licensed, I discussed only the semantic identity condition (But see footnote 10). But it is widely known that while the identity condition for clausal ellipsis needs to have some semantic components (e.g., Merchant 2001), it needs to have some syntactic components as well (e.g., Fox 1995; Chung 2013; Weir 2014). The supports for the syntactic identity condition come from the case-matching effect between the remnant and its corresponding expression in the antecedent (i.e., *correlate* in Merchant's (2001) terminology), unavailability of preposition sprouting and the diathesis shift between the elided clause and its antecedent, and so on. The following sluicing sentences in (26) provide an illustration of the unavailability of preposition sprouting.[26]

(26)   (Weir 2014)

    a.   He's jealous, but I don't know **[of who]** $_1$ ~~he's jealous t$_1$~~.

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[24] It is possible that the proposed analysis on CDCC sentences can apply to so-called *cleft constructions* in Japanese, which is exemplified in (i).

(i) $[_{XP1}$ watasi-ga __ mita-no]-wa $[_{XP2}$ itinensee-o   san-nin] desu
            I-Nom   saw-C-Top   freshman-Acc 3-CL   Cop
        'The one I saw is three freshmen.'

Despite its name, (i) resembles pseudoclefts; XP1 is a clause with a gap which is associated with XP2 in the way that XP2 is an individual I saw and the case on XP2 is the one that would be assigned to the element in the gap position in XP1. Although XP1 does not involve an overt wh-item unlike in German pseudoclefts, it is still possible in light of the presence of concealed questions that *watasi-ga mita-no* in XP1 denotes a question such as *who did I see?* and XP1 denotes the strongest true answer to the question. If so, Japanese clefts also have the structure in (25a) except that $CP_{[+Q]}$ replaces $pro_{[+Q]}$, and the meaning of (i) can be analyzed in the same way as that of the CDCC sentence in **??**.

[25] In fact, *I saw three freshmen* is not the strongest true answer because the proposition *I saw A, B, and C*, where *A, B,* and *C* are the names of freshmen Ito saw, is stronger than *I saw three freshmen*. But this is a general problem that Dayal's Ans may face when the answer propositions involve a quantified expression.

[26] The example is originally adapted from Chung et al. (2011).

b.   *He's jealous, but I don't know **[who]** $_1$ ~~he's jealous of t~~$_1$.

Two sentences in (26) differ from each other in whether the preposition *of* is pied piped with the remnant wh-item or it remains in the elided clause. This difference has resulted in the difference in whether clausal ellipsis is permitted or not. Crucially, the elided clauses in those sentences are semantically identical on the standard assumption that *of* is a semantically vacuous preposition which exists for case reason. Thus, the semantic identity condition does not appear to explain the difference in the availability of the ellipsis. On the other hand, a syntactic identity condition as in (27) can explain the difference in (26a) and (26b).[27]

(27)   (Chung 2006)
         Every lexical item in the numeration of the sluice that ends up (only) in the elided IP must be identical to an item in the numeration of the antecedent CP.

Whereas sentence (26a) satisfies the syntactic identity condition in (27), sentence (26b) does not; in (26b), it is not licit to elide the preposition *of* because it does not exist in the numeration of the antecedent CP *He's jealous*.
    Now that it is clear that clausal ellipsis must satisfy the syntactic identity condition as well as semantic identity condition, a question arises as to why the ellipsis in CDCC sentences is allowed. First, consider (28), which is the proposed structure of the CDCC sentence in (24).

(28)   [$_{XP1}$ **pro**] [$_{XP2}$ ~~watasi-wa~~ [itinensee-o   san-nin]$_F$ ~~mita~~] desu
                   I-TOP   freshmant-ACC 3-CL   saw   COP
         'The strongest true answer to the question "who did Sato see?" is the proposition "I saw three freshmen".'

I proposed that pro in XP1 is the linguistic antecedent for the clausal ellipsis in XP2. But if so, the ellipsis in (28) does not satisfy the condition in (27); none of the elided lexical item exists in the numeration of the antecedent.[28]
    However, the problem just described above can be solved by adopting Weir's (2014) syntactic identity condition below, which is a revised version of (27).

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[27] The term *sluice* refers to CP consisting of a remnant wh-phrase and elided clause (e.g., *[of who]$_1$ ~~he's jealous t~~$_1$* in (26a)).

[28] Here, the syntactic identity condition in (27) is interpreted such that *sluice that ends up (only) in the elided IP* is replaced by *elided clause* so that the condition can be used for the identity condition of clausal ellipsis in general rather than just sluicing whose remnant is always a wh-item.

(29)   (Weir 2014)
        Every lexical item in the numeration of an elided clause that ends
        up (only) in the elided IP must be identical to an item in the nu-
        meration of the antecedent CP *if failing to do so would be 'gratuitous'*.

In (29), the addition of the condition in italic revises (27) as a violable
isomorphic condition; the requirement states that elided lexical items *do not
have to* exist in the antecedent if there is no possible elided structure that
consists of only lexical items that exists in the antecedent. For example, the
requirement in (29) predicts the grammaticality of (30a) by assuming that
(30b-i) rather than (30b-ii) represents the structure of the second conjunct
in (30a).

(30)   (Weir 2014)
        a.   Jack left and someone else did too, but I don't know who.
        b.   (i)   ... but I don't know who ~~it was~~.
              (ii) *... but I don't know who ~~left~~.

In (30b-i), *it was* is elided. Even though the same expression does not exist
as an antecedent, the ellipsis is viable according to (29). This is because
there is no possible elided structure that consists of only lexical items that
precedes it. It should be noted that ~~*left*~~ in (30b-ii) is not available even
though the first conjunct in the sentence involves *left* and ~~*leave*~~, for ~~*left*~~ can-
not be overtly realized; if one says *but I don't know who left,* the utterance
is contradictory to the speaker's knowledge that Jack left. In this way, ac-
cording to (29), ellipsis site can involve lexical items that do not exist in
the antecedent if there is no elided structure that consists of only the lexical
items that exist in the antecedent.[29]

In light of (29), consider again (28). Pro in XP1 has no component to be
used to form the elided structure in XP2. Thus, the clausal ellipsis in (28) is
licit even though the elided clause is not isomorphic to its antecedent pro.
Therefore, CDCC sentences satisfy Weir's (2014) syntactic identity condition
as well as his semantic identity condition. In this way, the implementation
of the question-denoting pro can explain how the ellipsis in XP2 in CDCC
sentences can be licensed.

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[29] van Craenenbroeck (2010) and Elliott (2013) also propose similar syntactic identity condi-
tions that allow for an ellipsis site to syntactically differ from its antecedent in a last resort
fashion.

Finally, we turn to the question as to how the non-linguistic utterance context affects the availability of the accusative case. In fact, all the ingredients are already prepared to answer this question; the utterance context supports accommodation of a wh$_{Acc}$-question, pro in XP1 may take that question as its value, and the value for the pro determines whether the elided clause in XP2 involves an accusative case assigner. Note that this analysis not only predict the availability of the accusative case in (24) but also the unavailability of the accusative case in (2), which is repeated in (31).

(31)   [Context: Ito is a teacher. Since classes at this school are intensive, some students decide to quit on their own initiative every month. At the beginning of the monthly teacher meeting, Ito is supposed to report who quit in the month.]
    Eto: We'll start the meeting. Teacher Sato, please.
    Ito: [$_{XP1}$ pro] [$_{XP2}$ itinensee-**(*?o)** san-nin] desu
                          freshman-ACC 3-CL   COP
              'three freshmen.'

As mentioned in Section 2, the most natural accommodated wh-question that clarifies the meaning of the sentence in (31) is *who quit?*. So the pro in XP1 can take this question as its value, and enable XP2 to have the structure in (32) as a linguistic antecedent.

(32)   [$_{XP2}$ itinensee-**(*o)**   san-nin ~~yameta~~]
             freshman-/ACC 3-CL   quit
    'Three freshmen will quit.'

Note that the sentence is ungrammatical with accusative case. Thus, according to the Question in Disguise Theory, accusative case in (31) can not be licensed in the context.

In this way, assuming the question-denoting pro in XP1, the Question in Disguise Theory can explain the accusative case assignment and its contextual variability without introducing new ingredients into the analysis of connectivity effect or ellipsis licensing.[30]

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[30] Given that the Question in Disguise Theory claims that XP1 and XP2 form a question-answer pair, an anonymous reviewer for *Semantics and Linguistics Theory* pointed out that the theory cannot provide a reasonable meaning of interrogative CDCC sentences as in (i).

(i)   [Context: A merchant greets one of his regular customers, who always buys four fruits, by saying:]
      kyoo-wa   [$_{XP1}$pro] [$_{XP2}$**nani**-o   yon-ko] desu-ka?
      today-Top   what-ACC 4-CL   cop-Q

Whereas there is a theoretical motivation for assuming the above analysis on the CDCC effect in that the analysis can fully explain the CDCC effect, the following subsections further support the analysis. Specifically, Subsection 3.3.1 provides a piece of evidence for the presence of the covert structure in XP2. Subsection 3.3.2 then supports the presence of the question-denoting pro in XP1.

3.3.1   Covert structure in XP2

This section supports that XP2 in CDCC sentences involves a covert structure. The argument for this claim is based on the distribution of postpositional phrases (hence, PP).[31] The profile of the argument is as follows; some PPs in Japanese can co-occur with an NP in XP2 of CDCC sentences. But those PPs generally adjoin on a clausal spine, and not on an NP. Thus, CDCC sentences with such a PP + NP in XP2 suggest that XP2 is underlyingly a clause because otherwise XP2 cannot be a constituent.

'(Intended) As for today, what is x such that the customer will buy x whose cardinality is four?'

In (i), XP2 involves a wh-item, so it does not seem to denote an answer to whatever question XP1 denotes. However, the Question in Disguise Theory can indeed provide a reasonable meaning of (i). First, it can be assumed that pro in XP1 has its value determined by a wh_{Acc}-question *what is x such that the customer will buy x whose cardinality is four?*. This question meaning enables XP2 to have the structure in (ii).

(ii)   ~~kyaku-wa~~   [nani-o   yon-ko]$_F$ ~~kaimasu-ka~~?
           customer-TOP what-ACC 4-CL   buy-Q
           'What is x such that the customer will buy x whose cardinality is four?'

At this moment, XP1 and XP2 have the same denotation, so if they are equated by the copula, it is a tautology. However, on the assumption that *nani-o* 'what' in (i) undergoes a covert movement to the left periphery, the sentence approximately means: *what is y such that as for today, the strongest true answer to the question "what is x such that the customer will buy x whose cardinality is four" is "the customer will buy y whose cardinality is four"*. It should be noted that *nani-o* in (i) can overtly move to the left periphery as shown in (iii). Thus, it is plausible to assume its covert movement as well.

(iii)   **nani**-o   kyoo-wa   [$_{XP1}$pro] [$_{XP2}$**t**$_1$yon-ko]-desu-ka?
            what-Acc today-Top   4-CL-Cop-Q
            '(Intended) As for today, what is x such that the customer will buy x whose
            cardinality is four?'

[31] This argument is based on Hirsch's (2017) supporting argument for the claim that XP2 in English pseudoclefts is underlyingly a clause.

One example of such postpositions is *madeni* 'by', which is used as in (33).[32]

(33)   pro ([$_{PP}$ **1-zi-madeni]**) [[$_{NP}$ kuruma-o 5-dai] tuku-ru]
              1-o'clock-by   car-ACC   5-CL   make-NPst
         'Pro (= we) will make five cars by one o'clock.'

The sentence in (33) involves an optional PP *1-zi-madeni* 'by one o'clock', and the PP is parsed as adjoining on *[[$_{NP}$ kuruma-o 5-dai] tukuru]* rather than the NP *[$_{NP}$ kuruma-o 5-dai]*. The fact that the PP is associated with *[[$_{NP}$ kuruma-o 50-dai] tukuru]* can be supported by (34) as well.

(34)   pro (*[$_{PP}$ **1-zi-madeni]**) [[$_{NP}$ kuruma-o 5-dai] tuku-**ttei**-ru]
              1-o'clock-by   car-ACC   5-CL   make-Prog-NPst
         'Pro (= we) are making five cars by one o'clock.'

The sentence in (34) differs from (33) only in that the verb bears the progressive suffix *ttei*. Note that this difference makes (34) ungrammatical only when the PP is pronounced.[33] Hence, the difference in grammaticality between (33) and (34) suggests that the PP in (33) is associated with *[[$_{NP}$ kuruma-o 5-dai] **tukuru**]*.

In light of the distribution of the PP *1-zi-madeni*, consider next the CDCC sentence in (35), whose XP2 appears to involve the PP and an NP.

(35)   [Context: Ken is working at a factory which makes several kinds
         of vehicles. The factory has a meeting every morning, and at the
         beginning, Ken is supposed to report by what time the emplyees
         need to make what on that day.]
         mazu [$_{XP1}$ pro] [$_{XP2}$ [$_{PP}$ **1-zi-madeni**]$_F$ [$_{NP}$ **kuruma-o 5-dai**]$_F$] desu
         first   1-o'clock-by   car-ACC   5-CL   COP
         'First, [$_{XP1}$ pro] [$_{XP2}$ [$_{NP}$ fifty cars]$_F$ [$_{PP}$ by 11 o'clock]$_F$] .'

In (35), the PP cannot be parsed as XP1 as suggested by the fact that it cannot be nominative case-marked (although some PP can be nominative case-marked in Japanese). Nor can it be parsed as adjoining on *kuruma-o 5-dai-desu* because reasonable meaning cannot be made if we assume that the PP modifies the state of being fifty cars. So the remaining possibility is

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[32] The individual-denoting pro is used for the subject instead of an overt subject for space reasons.

[33] *ttei* is ambiguous between progressive and perfective suffixes. When *ttei* is interpreted as a perfective suffix, the sentence is grammatical with the meaning: *I will have made fifty cars by eleven o'clock*.

that the PP is located in XP2 with the NP. But as illustrated in (33)-(34), the PP does not adjoin on an NP but on a clausal spine. Hence, if XP2 does not involve a covert structure, XP2 cannot be a constituent, so it is wrongly predicted that sentence (35) is ungrammatical.

On the other hand, the grammaticality of (35) is compatible with the assumption that XP2 is underlyingly a clause such as (33); in (33), the PP adjoins on *kuruma-o 5-dai tukuru,* and XP2 in (35) derives after ellipsis applies to XP2 except the F-marked PP and NP. Therefore, data such as (35) supports that XP2 in CDCC sentences contains the covert structure.

3.3.2 Question-denoting pro in XP1

This section provides further supports for the presence of pro. To begin with, it is well-known that Japanese has a covert free variable pronoun of type <e> as we already saw in examples in (33) and (34). The value for pro in those sentences is also determined by the contextual variable assignment as the question-denoting pro in the previous CDCC sentences. So the only difference between those two types of pro is whether it denotes an individual or question, and appears in a position for an individual-denoting expression or in a position for a question-denoting expression.

In fact, pro in Japanese can be of question type and have its value determined by a contextually salient wh-question in general. The pro in (36) provides an illustration.[34]

(36)   [Context: Ken told Ryo and Ai that one of their male friends plays a masked wrestler without telling who. Today, they came to a wrestling match. Seeing a masked wrestler whose face is mostly hidden, Ryo nods at it. So Ai asks Ryo the question:]
Ryo-san, **pro**/ *[?]kare/ *sore/ **ano resuraa-ga   dare da-ka**
R-Mr.   him   it   that wrestler-NOM who textsccop-Q
wakarimasita-ka?
recognize-Q
'Mr. Ryo, did you recognize pro/who that wrestler is?'

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[34] The context in (36) is designed such that *wakarimasita* "recognized" takes an elided expression as its complement due to the lack of a linguistic antecedent for such an ellipsis, although Japanese is proposed to allow argument ellipsis (e.g., Oku 1998).

The overt wh-question in (36) can be readily accommodated by the context. So the value for pro is assumed to be set as the wh-question by the contextual variable assignment.[35]

Now that it is shown that Japanese has pro of a question type, recall that CDCC sentences have XP1 which does not host any overt expression and which cannot be assumed to host an elided phrase due to the lack of a linguistic antecedent. Then, given that pronoun does not require a linguistic antecedent unlike an elided expression (Hankamer & Sag 1976), it is reasonable to assume pro in XP1. More specifically, in considering how the ellipsis in XP2 can be licensed, it is reasonable to assume that XP1 in CDCC sentences host a question-denoting pro.

Notably, pro in XP1 can sometimes be overtly realized (37).

(37)   [Ken-ga nani-o   tyuumonsita-ka] kininatteita-ga,
       K-Nom   what-Acc ordered-Q   was.wondering-but
       [$_{XP1}$ **sore-ga/pro**] [$_{XP2}$ onigiri-o   mit-tu] da-to wakatta
            it-Nom   rice.ball-ACC 3-CL   COP-C found.out
       'I have been wondering what Ken ordered, but I found out it was three rice balls.'

In (37), pro in XP1, which takes as its antecedent the wh-question in the first clause (i.e., *what Ken ordered*), can be overtly realized as *sore-ga* 'it-Nom'.[36]

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[35] While pro can be substituted by an overt wh-question in (36), XP1 in CDCC sentences cannot hold an overt wh-question. At this moment, it is not clear why, but it might be the case that XP1 in Japanese clefts is the overt realization of XP1 in CDCC sentences. See footnote (i).

[36] It should be noted that pro in XP1 cannot always be substituted by *sore-ga*. But this fact does not necessarily deny the presence of pro in XP1 because the question-denoting pro cannot be replaced by an overt pronoun in general when it does not have its linguistic antecedent; for example, the question-denoting pro in (36) can be substituted by *sore*, either.

It is also worth mentioning that there exist CDCC sentences whose XP1 seems to host an overt NP (i).

(i)   [Context: Ken and Ryo are living in the same dorm where they always eat the
           same dinner provided by the dorm. Ken asks the following question.]
           pro [[$_{XP1}$ kyoo-no   yuuhan-ga] [$_{XP2}$ gyooza-**o**   50-ko] da-tte] sitteta?
                 today-Gen dinner-NOM   dumpling-ACC 50-CL COP-C knew
           'Did pro (= you) know that [$_{XP1}$ today's dinner] would be [$_{XP2}$ 50 dumplings]?'

Given that XP2 contains an accusative case-marked NP which is understood as the things that people in the dormitory will eat, it is assumed under the Question in Disguise Theory that XP2 has a structure: ~~we will eat~~ *[50 dumplings]$_F$*. However, due to the overt NP in

Hence, the example in (37) further supports the presence of a question-denoting pro in XP1.[37]

Finally, we turn to a different type of CDCC sentences, which support the the presence of pro in XP1. The CDCC sentences in question appear in the scope of a quantified expression, and sentences seem to involve a variable that is bound by the quantifier, as shown in (38).[38]

(38)   [Context: There is a hospital where all the nurses know that every patient is going to eat two rice balls for dinner. During the lunch time, when two nurses walked by a store in the hospital, they found several patients buying rice balls. Then, one of the nurses says:]
dono-kanzyasan-mo [**onigiri-o   futa-tu da-tte**] sitteru-yone?
every.patient   rice.ball-ACC 2-CL   COP-C know-TAG
'(lit.)Every patient knows [$_{CP}$that [$_{TP}$is two rice balls]], don't they?'

In (38), the speaker is worried if every patient knows that their dinner will be two rice balls on the assumption that they do not want to eat rice balls for both lunch and dinner. Crucially, the embedded clause in (38) does not assert that the hospital will provide two rice balls in total as dinner for the patients but that each patient's dinner will be two rice balls. Thus, the embedded CDCC is understood as if there is a variable bound by *every patient* in the matrix clause. I call this reading the *bound reading*.

There are mainly two hypotheses to explain how the bound reading is available in (38), one of which is consistent with the analysis of CDCC sentences proposed above and the other one is not. Crucially both of them

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XP1, the sentence does not seem to involve the question-denoting pro, and does not seem to allow clausal ellipsis in XP2.

Although further study is required, there are possible analyses on sentences as in (i). One analysis is that XP1 in (i) denotes a concealed question *what do we eat for today's dinner?*. If this analysis is correct, XP1 in (i) can serve as a linguistic antecedent as the question-denoting pro does. Another analysis is that *today's dinner* is not XP1 but an element in a higher position as *today's dinner* in (ii), and XP1 indeed holds the question-denoting pro. In this analysis, pro is assumed to have its value determined by a wh$_{Acc}$-question as *what do we eat?*, and enables the ellipsis in XP2 as the linguistic antecedent.

(ii)   [kyoo-no yuuhan-**ga** [$_{XP1}$ morituke-**ga**] [$_{XP2}$ kiree]   dearu] koto
today-GEN dinner-NOM   setout-NOM   beautiful COP   fact
'the fact that as for today's dinner, the setout is beautiful.'

[37] Schlenker (2003) discusses French connectivity sentences whose XP1 involves *c'* 'it' which takes an overt wh-question as its antecedent. Those sentences also support that XP1 in CDCC sentences can be pro.

[38] In (38), *dono...mo* is a circumfix which attaches to an NP and means *every NP*.

assume that the embedded CDCC sentence in (38) involves a pro in XP1. Thus, the availability of the bound reading supports that XP1 in CDCC sentences involve pro. In what follows, I explain both hypotheses in turn.
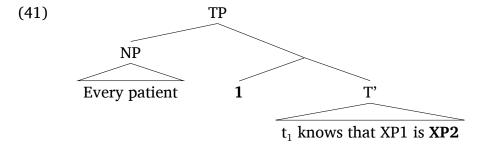
I start with the hypothesis that is consistent with my analysis of CDCC sentences proposed above. So the first hypothesis analyzes that *two rice balls* in (38) is a clause disguised by ellipsis, and that the question-denoting pro exist in XP1, as shown in (39).

(39) $[_{CP}$ $[_{XP1}$ pro] $[_{XP2}$ ... [onigiri-o   futa-tu]$_F$ ...]] da-tte]
                          rice.ball-ACC 2-CL   COP-C
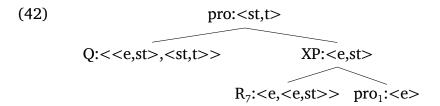   '$[_{CP}$ that $[_{XP1}$ pro] is $[_{XP2}$ ... [two rice balls]$_F$ ...]].'

Given that the CDCC sentence in (38) is understood as *every patient will eat two rice balls, two rice balls* can be assumed to have the sentence structure in (40).

(40) $[_{XP2}$ ~~zibun$_1$-ga konban~~ [onigiri-o   futa-tu]$_F$ ~~taberu~~]]
                  self-NOM   tonight rice.ball-ACC 2-CL   eat
        '~~self$_1$ will eat~~ [two rice balls]$_F$ ~~tonight~~.'

It is assumed that *zibun-ga* in (40) is a variable bound by the index introduced by the movement of *every patient*, as shown in (41).

(41)

In this way, the presence of the bound variable in XP2 enables the bound reading. However, now that the meaning of XP2 in (39) varies with the semantic value of the trace of *every patient*, so the meaning of the question, which XP2 answers, should also vary in the same way. What this means is that pro in (39) should not be a free variable unlike pro in the previous CDCC sentences. So I assume following Cooper 1979 that pro in (39) is an E-type pronoun that involves both the free and bound variable pronouns as in (42).
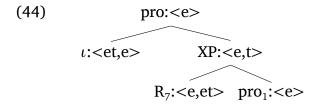
(42)   pro:$\langle st,t\rangle$

        Q:$\langle\langle e,st\rangle,\langle st,t\rangle\rangle$ XP:$\langle e,st\rangle$

                                    R$_7$:$\langle e,\langle e,st\rangle\rangle$ pro$_1$:$\langle e\rangle$

In (42), R$_7$ is a free variable pronoun which has its value determined by the contextual variable assignment as $\lambda x_e.\lambda y_e.\lambda w_s.x$ *will eat y for dinner in w*. Pro$_1$ is a bound variable pronoun whose value is mapped by R$_7$ into $\lambda y_e.\lambda w_s.g(1)$ *will eat y for dinner in w*, where *g* is an assignment whose domain involves *1*. Q is a function that maps a property into a question constituent in the same line with a free relative pronoun in the analysis referred to as *Comp analysis* by Jacobson (1995). Specifically, Q is defined as $\lambda f_{e,st}.\lambda p_{st}.\exists z_e[p = f(z)]$. Thus, in (42), Q maps the $\langle e,st\rangle$ property in XP into the set of possible answers to the question *what will g(1) eat for dinner?* (i.e., $\lambda p_{st}.\exists z_e[p = \lambda w_s.g(1)$ *will eat z for dinner in w]*). Importantly, *pro$_1$* is bound by the index *1* introduced by the movement of *every patient* (See (41)). Thus the semantic value of pro in XP1 can co-vary with the value of the trace of the quantified expression, as expected.

    Given (42), the rest of the semantic composition of the CDCC sentence in (38) is the same as that of previous CDCC sentences and pseudoclefts. The answer operator applies to the E-type pro in (42), and XP1 denotes the strongest answer to the question *what will g(1) eat for dinner?*. Then, XP1 is equated with XP2 by the copula and the resulting CDCC sentence in (38) approximately denotes: *the strongest answer to the question "what will g(1) eat for dinner?" is "g(1) will eat two rice balls"*.

    As for the second hypothesis, although it also assumes that the CDCC sentence involve an E-type pro, it does not assume the ellipsis in XP2, as shown in (43).

(43)   [$_{CP}$ [$_{XP1}$ pro] [$_{XP2}$ onigiri-o   futa-tu] da-tte]
                            rice.ball-ACC 2-CL   COP-C
        '[$_{CP}$ that [$_{XP1}$ pro] is [$_{XP2}$ two rice balls]].'

Another crucial difference is that pro in the second hypothesis denotes an individual rather than a question as shown in (44).

(44)   pro:$<$e$>$

　　　　　　　ι:$<$et,e$>$　　　　　XP:$<$e,t$>$

　　　　　　　　　　　　　R$_7$:$<$e,et$>$　　pro$_1$:$<$e$>$

In (44), R$_7$ is a free variable pronoun whose value is determined by the contextual variable assignment as $\lambda x_e.\lambda y_e.$ *y is dinner that x will eat tonight.* This function then applies to pro$_1$, and resulting expression XP denotes $\lambda y_e.$ *y is dinner that g(1) will eat tonight,* where g is an assignment whose domain involves *1.* ι plays the same role as English definite article *the*; it takes a property of type $<$e,t$>$, presupposes there exists a unique individual with that property, and denotes that individual. Specifically, ι is defined as $\lambda f_{et}.\iota x_e[f(x)]$. Finally, ι maps the $<$e,t$>$ property in XP into the unique dinner that g(1) will eat tonight (i.e., ιx_e*[x is dinner that g(1) will eat tonight]*) As the E-type pro in the first hypothesis, the pro in (44) also involves pro$_1$, which can be bound by the index 1 in (41). Thus the semantic value of pro in (44) can also co-vary with the value of the trace of the quantified expression, as expected.

As for the meaning of XP2 in (43), following the so-called adjectival theory of numerals (e.g., Landman 2008), one can assume it to approximately mean: $\lambda x_e.$ *x is two rice balls.* Then, on the assumption that copula is semantically vacuous (e.g., Partee 1986), the composition of XP1 and XP2 derives the approximate meaning of the CDCC sentence: *the unique dinner that g(1) will eat tonight is two rice balls.*

In this way, there are two plausible analyses to explain how the bound reading is derived. Crucially, as both analyses assume, we need to assume a pro in XP1 to gain the bound reading. Therefore, the presence of the bound reading in some CDCC sentences also supports that XP1 in CDCC sentences hold a question-denoting pro.[39,40]

To sum up, Section 3 demonstrated that the Question in Disguise Theory can explain the CDCC effect. I first showed that whereas the theory can

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[39] The availability of the bound reading per se cannot favor either analysis discussed above. However, the second analysis does not straightforwardly explain other phenomena such as the accusative case licensing in XP2, and availability of XP2 that consists of a clause-adjoining PP and NP. Thus, this paper adopts the first hypothesis, and the presence of the second hypothesis does not undermine the assumption of the covert structure in XP2. However, it should be noted again that the important point made in the main text is that plausible explanations of the bound reading need to assume a pro in XP1.

[40] In relation to the second hypothesis, it may be worth mentioning an alternative analysis of XP1 in the CDCC sentences discussed in the previous subsection as in (i).

straightforwardly explain the case connectivity effect in German pseudo-clefts (Section 3.1), it does not seem *prima facie* to explain the CDCC effect (Section 3.2). The primary questions posed to the theory were: (i) what occupies the position of XP1, (ii) how the ellipsis in XP2 can be licensed, and (iii) how the non-linguistic utterance context can affect the availability of the accusative case. Essentially, all of these questions arised because there was no overt question-denoting expression in XP1. But Section 3.3 demonstrated that XP1 still holds a covert pronoun pro of a question type, which functions in the same way as the overt XP1 in pseudoclefts, and that its implementation can answer the primary questions mentioned above.

In Section 2, it was shown that none of the standard case assignment mechanisms explains the contextual variability in case, given a transparent syntax of CDCC sentences. Then, Section 3 solved the CDCC effect by reanalyzing the structure of CDCC sentences. However, there is another way to

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(i)   [Context: Ito is a teacher and is in charge of monitoring the rooftop where students are disallowed to go. He is supposed to report at the beginning of the monthly teacher meeting who went there.]

Eto: W'll start the meeting. Teacher Ito, please.

Ito: [$_{XP1}$ pro] [$_{XP2}$ itinensee-**(o)**   san-nin] desu
                    freshman-ACC 3-CL   COP
         'three freshmen.'

The alternative analysis is that pro in XP1 denotes a definite description with an *implicit content*, i.e., some covert material that restricts the domain of the pro. In (i), for example, it is assumed that pro is a definite description equivalent to *the students* in English, and an implicit content such as *that I saw* restricts its domain. This idea is based on the fact that some utterance context enables English DP such as *the student* to be understood as *the student **who Ito saw***. To explain the intended meaning of the DP, the notion of the implicit content was proposed in the literature although it is controversial as to what exactly the content of the implicit content is, how it interacts with the overt DP *the student,* and so on.

While it is plausible that the implicit content *that I saw* is available in the context in (i) (note that there is a presupposition among the teachers that Ito saw someone), the alternative analysis of XP1 has a problem; the implicit content is not likely to serve as an antecedent for clausal ellipsis in XP2. This is illustrated by the unavailability of the clausal ellipsis in (ii) where *<who came to the conference>* is an implicit content.

(ii)   **A:**   Who came to the party after the conference last night?
         B: Only the students <**who came to the conference**> came.
         A: I don't know who$_1$ *([$_{TP}$ t$_1$ **came to the conference**]). So who exactly came?

Although it is plausible to assume for the implicit content *<who came to the conference>*, it does not allow the clausal ellipsis in A's second utterance. So it is premature to assume that an implicit content can serve as an antecedent for clausal ellipsis. Therefore, this paper argues that XP1 holds a question-denoting pro instead.

approach the CDCC puzzle; that is, we attempt to solve the puzzle by modifying the current case theory. As mentioned in Section 2, there actually exists a line of such approaches to case connectivity effects, which I call the *revisionist approach* following Schlenker (2003). So the next section briefly discusses the approach with respect to CDCC sentences. It will be shown, however, that the approach cannot explain the availability of the accusative case, let alone the contextual variability.

4 Revisionist approach

This section introduces the revisionist approach, which attempts to explain the case connectivity effect in fragment answers by modifying the current case theories as it maintains the transparent syntax of the sentence (e.g., Ginzburg & Sag 2000, Jacobson 2016). I demonstrate that although the approach can explain the case connectivity effect in fragment answers, it does not seem to explain the CDCC effect.

Consider first the German fragment answer in (45).[41]
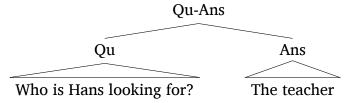
(45) (Nakano 2008)
    A: **Wen**   sucht Hans?
         who.Acc seek   H
         'Who is Hans looking for?'
    B: **Den**   Lehrer
         the.Acc teacher
         'the teacher'

In (45), *Den Lehrer* in B's utterance is parsed as a proposition that Hans is looking for the teacher even though it has the nominal form. To explain how it gains the propositional meaning, Jacobson (2016) proposes that wh-questions and their answers syntactically form a linguistic construction called *QUESTION-ANSWER PAIR* (Qu-Ans). In (45), A's question and B's answer form the Qu-Ans pair in ((46)).

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[41] The wh-item in Nakano's (2008) original example is *wem*, but it is a dative case-marked wh-item, and *wen* is the correct form.

(46) **Syntactic structure of (45)**

Qu-Ans

Qu   Ans

Who is Hans looking for?   The teacher

According to Jacobson (2016), single-wh-questions denote a function of type $<\alpha,t>$ for some α whose constituent is being questioned. In (45), A's question or Qu denotes λx_e. *Hans is looking for x*. This function is applied to B's answer or Ans which refers to a unique individual with the property of being a teacher. As a result, the Qu-Ans denotes: *Hans is looking for the teacher*. Crucially, Jacobson (2016) stipulates that a Qu and Ans can form a Qu-Ans only when Ans matches the wh-expression in Qu in syntactic category which is assumed to include case information. In other words, the revisionist approach attempts to explain the case connectivity effect by stipulating a constraint on the case feature matching between the fragment answer and the wh-item in the wh-question.

In light of the revisionist approach's explanation of the case connectivity effect, consider the CDCC sentence in (1), repeated below as (47).

(47) [Context: Ito is a teacher and is in charge of monitoring the rooftop where students are disallowed to go. He is supposed to report at the beginning of the monthly teacher meeting who went there.]
Eto: W'll start the meeting. Teacher Ito, please.
Ito: itinensee-**(o)** san-nin desu
freshman-ACC 3-CL COP
'three freshmen.'

In (47), *three freshmen* can be interpreted as *I saw three freshmen*, which answers the wh$_{Acc}$-question *who did Sato see?* So one may claim that the wh$_{Acc}$-question and Sato's utterance form a Qu-Ans pair on the assumption that the presence of the copula does not interrupt the syntactic derivation. Alternatively, given that Section 3 proposed that CDCC sentences involve the question-denoting pro, one may claim that the question-denoting pro and *three freshmen* form a Qu-Ans pair. If so, it may follow that *three freshmen* in (47) bears accusative case due to the case-matching constraint.[42]

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[42] In (47), Ans is not an individual-denoting phrase unlike the Ans in German fragment answer in (45), but a quantified expression. So the function denoted by the Qu *who did Sato see?* cannot apply to *three freshmen*. Instead, Jacobson (2016) argues that the Qu is taken as

Importantly, however, neither the wh$_{Acc}$-question nor question-denoting pro seems to serve as a Qu; given that the wh$_{Acc}$-question is not a syntactic object, neither the wh$_{Acc}$-question nor question-denoting pro has a linguistic wh-item that Ans (i.e., *three freshmen*) must match in case feature. and the question-denoting pro does not involve a linguistic wh-item which *three freshmen* must match in the case feature.[43] In addition, the revisionist approach, which does not assume the elided expressions in CDCC sentences, need to explain why Ans is able to contain a clause-adjoining PP withot a clausal spine. Therefore, the revisionist approach does not seem to explain the CDCC effect better than the Question in Disguise Theory does.

5   Conclusion

This paper investigated typologically unobserved case connectivity copular sentences, based on Japanese data. The construction, which I called the *context-dependent case connectivity sentence* (CDCC sentence), differed from previously studied case connectivity sentences in that (i) there is no overt accusative case assigner intra- and extra-sententially and (ii) the non-linguistic utterance context affects the availability of the accusative case in the construction. It was shown that none of the standard case assignment mechanisms can explain how the accusative case in CDCC sentences is licensed and how the utterance context affects the availability of the case, given the transparent syntax. Thus, the paper examined two lines of approach to case connectivity sentences to see whether they can explain the CDCC effect; one approach, which I called the *revisionist approach*, attempted to solve the CDCC effect by modifying the current case assignment mechanisms. The other approach, which I called the *Question in Disguise Theory*, attempted to explain the CDCC effect by reanalyzing the syntactic structure of the construction.

Although neither approach could straightforwardly explain the CDCC effect, this paper demonstrated that the Question in Disguise Theory can explain it once it is assumed that Japanese has a covert pronoun of a question type. Specifically, I proposed that the question-denoting pro has its value determined by the contextually accommodated wh-question, and the

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an argument by the meaning of the generalized quantifier. Hence, the use of a quantified expression as Ans does not necessarily cause a semantic composition problem.

[43] If one assumes wh$_{Acc}$-questions to be syntactic objects obscured by an ellipsis, it needs to be explained how such an ellipsis can be licensed and how its meaning can be recovered without a linguistic antecedent. See also footnote 17

question meaning of pro enables an ellipsis of an accusative case assigner in CDCC sentences. In other words, the implementation of pro that mediates the non-linguistic utterance context and ellipsis site enabled to explain how the accusative case can be licensed without an overt case assigner and how the non-linguistic utterance affects the availability of the case. The presence of such a pronoun in Japanese and the validity of the Question in Disguise Theory with respect to the CDCC sentences were supported in this paper. However, I leave for future research to what extent cross-linguistic data support the existence of pronouns that mediates the non-linguistic utterance context and ellipsis site.

Abbreviations

ACC = accusative, DAT = dative, NOM = nominative, PL = plural, SG = singular

Competing interests

The author has no competing interests to declare.

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