Contrastive Topic and/or Contrastive Focus

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1. Introduction

Regarding information structure, we can take a topic-oriented view of (1a), a focus-oriented view of (1b), and a bipolar or tripartite view of (1c). If we incorporate the notion of 'contrastive' into the structure, the situation becomes more complex, as in (1d):

(1) a. [TOPIC–Comment]
     b. [Given (Ground/Presupposition)–FOCUS] (cf. Hetland 2003)
     c. [[TOPIC –Given]– FOCUS]
     d. [TOPIC –Contrastive Topic (CT) vs.
              Contrastive Focus (CF) – FOCUS]

In this paper, I make use of a dialogue or discourse model adopted by Carlson (1983) and Roberts (1996) to characterize Contrastive Topic (CT) vs. Contrastive Focus (CF). I basically argue that CT is preceded by a conjunctive question, whereas CF is preceded by an alternative disjunctive question.

2. Contrastive Topic: How it Comes from Conjunctive Question

2.1. Contrastive Nominal Topic

Let us consider CT first. In example (2a), the speaker asks about the entire topic referent set 'Bill's sisters'. But the set can be cut into partitions. In one partition, [Bill's youngest sister] and his other sisters can be its cells. The respondent in (2b) then presupposes a conjunctive question, 'What did Bill's **youngest** sister and the rest do?'

(2)   a.   What did Bill's sisters do?
        b.   [Bill's **youngest** sister]$_{CT}$ kissed **John**$_F$.
            [L+H*LH%]   (Krifka 1991, intonation added)

On the surface (2b) answers just the first conjunct question, against the questioner's expectation. However, because of the contrastive contour on **youngest** *sister* the unuttered meaning conveyed by (2b) is 'but Bill's other sisters didn't kiss John' or epistemically 'but I don't know what Bill's other sisters did'. If the conveyed meaning here is an implicature, it is a *conventional* one, not a conversational one, contra Rooth (1996) and Buring (2000), in the sense that it is triggered by a linguistic device (e.g. a contour in English, a morphological marker with a high tone in Korean (-*nun*) and Japanese (-*wa*), a contrastive morpheme plus tone in Thai (*nan3*)), and that it is not cancellable (Lee 2003). The F(ocus)-marking projects to the VP in (2b), so that (2b) consists of CT and FOCUS, a typical CT construction. Morever, the uttered CT referent together with the unuttered contrasted referent form a sum which is equivalent to the original topic referent.

     Similarly, in (3a) the potential topic referent *money* consists of *coins* and *bills* in a join semilattice. The respondent in (3b) presupposes a conjunctive question, 'Do you have coins and bills?', and expects to be accommodated by the questioner.

(3)   a.   ne   ton   iss ni ?
             you money have Q
             'Do you have money?'
        b.   na tongceon-**un** iss-e
             I   coins-CT   have-DEC
             'I have coins$_{CT}$, (but not bills).'
               [L+H*LH%]   (Lee 1999)

Buring (2000) argues that there must exist a focus for a CT, but this is not true. In the possessive construction in (3a) the originally NOM-marked NP *ton* 'money' is a topic candidate. It might have been fronted as a topic and the sentence recast *ton ne iss-ni?* 'Money, do you have?' It might also have been used as the topic in the next sentence, i.e., *ton na epse* 'Money, I don't have'. But the topic in (3a) as stated is *ne* 'you'. *Ton* 'money' functions as a potential/candidate topic for the next utterance. Here, the respondent takes up this potential topic as the real topic and responds with respect to the subset of money represented by coins (*money* being the union of the set of coins and the set of bills). The original topic *na* 'I' remains and a CT is added. The yes/no (or *verum*) question demands an answer with respect to *whether*

or not, *iss(-ni) eps(-ni)* 'have or not have.' A yes/no question in this sense includes a CF, which will be discussed in Section 4. (3b) is a partial answer to this yes/no question. The surface of (3b), then, is apparently [TOP–CT] but if we consider the CF, the structure turns out to be [TOP–CT–CF]. Here the contrast is between a tentative, partial, and concessively admitted affirmative answer, and its opposite. Because the CT is included, the interpretation of (3b) includes the opposite verum CF *eps-e* 'not have' regarding 'bills', the contrasted alternative to 'coins'. Its English counterpart (the translation of (3b)) includes exactly the same mechanism, although the word order is different and the second nominal is ACC.

The question in (3a) can be understood as a set of (true) answers as shown in (4), which partitions the worlds into two kinds, those worlds in which I have money and those worlds in which I don't. This makes available to the respondent the implied conjunctive question in (5) or (6).

(4)   {I have money, I have no money}

(5)   Do you have (coins and) bills?

(6)   Do you have coins and do you have bills?

Understood as the answer to (6), (3b) can also be represented by the set of sets in (7) (adopting Buring's (2000) analysis).

(7)   {{I have coins}, {I have bills}}

(8)   A function $[[P]]^{CT}$ delivers meanings in the powerset of the powerset of $D_{type(P)}$

The answer given in (3b) cannot be followed by (9), in which a CT marker or an additive parallel marker (which is slightly better, with an epistemic hedge (Lee 2003)) appears:

(9)   ?*....kuriko cicen-**un**/-to iss-e
              and   bill-CT/-also have-DEC
       '...and I have bills$_{CT}$ /also have bills.'

The continuation in (9) makes the discourse almost contradictory because (3b) as spoken implicitly conveys the denial in (10).

(10)   ....haciman cicen-**un** eps-e
               but   bills-CT   not-have
        '...but I don't have bills $_{CT}$.'

The inappropriateness of (9) contradicts Buring's (2000) claim that the conveyed denial is merely a conversational implicature. Also, hedges such as 'maybe' may intervene to save the connection, as in (11).

(11)   ....kurente **ama**   cicen-to iss-ulkkeya
               and   maybe bill-also have-PRESUMPTIVE
        '...and **maybe** I also have bills.'

This is the speaker's way of correcting the judgment on line, not a flat cancellation. Therefore, the conveyed meaning cannot be just a conversational

implicature. Furthermore, it must clearly be more than an implicature, as will be discussed at the end of the paper.

2.1. Contrastive Predicate Topic and Scalar Semantics

CT also applies to predicates, not only to subjects, objects and other nominals. Consider:

(12) a. o-ki-**nun** hae-ss-e
come-NOMINALIZER-CT do-PAST-DEC
'(She/He) came_CT...'
[L+H*LH%].

b. ki-**wa** shita (Japanese)
come-CT do-PAST
'(She/He) came_CT...'

→ '...but—didn't work'
(=denial of a predicate higher on the scale, conventionally conveyed)
(from Predicate Scales: <work, come> (where *work > come*); <win a medal, participate in a game>; <kill it, push it, touch it>; <eat it, peel it> (C. Lee 2000))

Most categories including adverbs (although not universal adverbs) can be CT-marked:

(13) a. Yumi-ka il-ul pucirenhi-**nun** ha-n-ta
-NOM work-ACC diligently-CT do-PRES-DEC
'Yumi works diligently_CT (but not well).'

b. Yumi-ka sikan-ul kakkum-**un**/?*hangsang-**un**
-NOM time- ACC sometimes-CT/?*always_CT
cal cikhi-n-ta
well keep-PRES-DEC
'Yumi keeps time well sometimes_CT/?*always_CT.'
(Steedman 2000, for English)

Particular predicates are contextually or pragmatically chosen but once chosen, they are partially ordered and subject to a scalar semantics. This is true of common nouns as well. (3a) followed by (14) is normally felt to be odd:

(14) ??na cicen-**un** iss-e
I bill-CT have-DEC
'I have bills_CT.'

This is because the set {bill, coin} is hierarchically ordered in ordinary usage such that *bill* is higher than *coin* on the pragmatic scale (i.e. *bill > coin*). A CT reading is not available because there is no noun higher than *bill* on the scale. However, in a particular situation where the addressee *needs* coins and bills are useless, the scale is reversed (i.e. *coin > bill*) and (14) becomes appropriate. On the other hand, in a situation where the speaker knows that the addressee can only use coins (at a bus stop, for

instance), *money* is extensionally equivalent to *coins* and (3a) may be cooperatively answered by (15) without the CT marker *-nun*.

(15)   ung, (na) tongcen iss-e/manh-e
          yes   I   coins   have-DEC /have.many-DEC
          'Yes, I have (many) coins.'

Because *tongcen* 'coins', understood by accommodation as *money*, is purely topical there is no sense of contrastiveness in this case. A CT requires the denial of a stronger predicate. Another pair of scaled nouns is <*pap* 'rice,' *cuk* 'porridge'>. Even a semantically weaker common noun with a CT can convey the denial of the stronger one.

(16)   I ate a fruit...   (...but not an apple).
              [L+H*LH%].
          <apple, fruit> (cf. Krifka 1999)

There are also cases in which a positive *wh*-question (of blaming) is answered by a negative CT utterance. The speaker of the *wh*-question in (17) below does not expect (18), a CT-marked utterance, as a direct reply.

(17)   nu-ka   col-ess   ni?
          who-NOM doze.off-PAST Q
          'Who dozed off'?

(18)   ce-**nun** an   col-ess-eyo
          I- CT   not doze.off-PAST
          'I$_{CT}$ didn't doze off.'

(19)   a.   Someone dozed off.
          b.   Did you doze off?
          c.   Did you and your friends doze off?
                  (the answerer's presupposition)

(18) serves as an answer to (17) through the process of accommodation. (19a&b) are implied by (17). The underlying question is assumed to be something like (19c). A non-blaming question can be answered by a positive CT sentence.

3. Contrastive Focus: How it Comes from Alternative Questions

Let us now turn to CF. In contrast to the conjunctively conceived potential topic involved in a CT construction. If a concern is phrased as a disjunction, i.e., as in an alternative disjunctive question, and the speaker responds to a single disjunct (as would normally be expected), then the answer is characterized by CF. Consider:

(20)   aki-ka   ton-ul   mence cip-ess-ni   (ttonun/animyen)
          baby-NOM money-ACC first   pick-PAST-Q (or/if.not)
          phen-ul   mence cip-ess-ni?
          pen-ACC first   pick-PAST-Q
          'Did the baby pick the money first, or did she pick the pen first?'

(21) (aki-ka)   ton$_F$-ul/?*ton-**un**   mence cip-ess-e.
        baby-NOM money-ACC/money-CT first   pick-PAST-DEC
        'The baby picked the money first/?*money$_{CT}$ first.'

In the case of CF, as in (21), the respondent does not deviate from the previous speaker's presupposition regarding the alternative question, satisfying the expectation that the question will be answered with one disjunct. In the case of a CT, however, the current speaker deviates from the previous speaker's pre-supposition regarding the potential topic. In a CF, alternative(s) are excluded, and the choice can be understood as exhaustive at the moment of speech. CF is still a narrow focus, which takes a case marker in case-marking languages and a focus stress in other languages. Note in (21) that the CF-marked noun stem itself is pronounced with an H*. In contrast, the noun stem in a CT-marked NP, as in (3b), starts L on the noun stem and rises directly to an H tone on the CT marker *-nun* (unlike in Indo-European languages, where functional categories do not get a pitch accent). This rising or high tone (L+)H* both in Korean and English signals that something unresolved (i.e., a contrastively negated proposition) is to follow. In this sense, intonation is **compositional** and correlated with information structure (Pierrehumbert et al. 1990).

An alternative question in Korean consists of two full sentences because of word order and intonation, superficially unlike English. In English, an alternative question has a rising tone on the first disjunct nominal or sentence and a falling tone on the second toward the sentence-final position. This indicates that the ellipsis reflects a full alternative disjunctive question consisting of two clauses, as in (22), with the question speech act. In Korean, sentence-terminal intonation falls on the verb because Korean is a verb-final language. Furthermore, a sentential ending showing mood type (Q or DEC) is required at the end of the sentence following the verb. Therefore, two full clauses are required for the /H% \L%? alternative question intonation. As in (20), if the subjects are identical the second one can be deleted. Alternatively, the verb in only the first disjunct can delete, with *animyen* 'if not' becoming obligatorily. Compare (20) with *aki-ka ton-ul mence/*H% [$_V$ ----] *animyen phen-ul mence cip-ess-ni*\L%?. Post-sentential-ending elements are not allowed in Korean and Japanese unlike in Hindi, where the subject and verb can elide after *yaa* 'or'. This may be related to other differences between Korean and Hindi, otherwise both verb-final (see Han and Romero 2002). It is interesting to note that these two structurally distinct languages (Korean and English) use exactly parallel /H% \L%? alternative question intonation.

This pattern is also distinct from (23), with a rising tone at the end of the nominal disjunction, but not on the first disjunct as in a yes/no question, and separate from an open alternative question with a rising tone on every disjunct. (23) typically has an 'either one' implicature which can be cancelled, as in a normal disjunction. In contrast, the question speech act in (22) has wide scope over (>) disjunction. (23) is equivalent to a question in Korean with a nominal disjunction.

(22) Did the baby pick a bill/H% or (did she pick) a pen\L%? [Q < ∨]

(23) Did the baby pick a bill or a pen/H%? [Q > ∨]

(24) aki-ka   ton -ttonun phen-ul cip-ess-n/?
      baby-NOM bill -or   pen-ACC pick-PAST-Q?'
      'Did the baby pick a bill or a pen/H%?'

The alternative question in English (22) is followed not by a yes/no answer but by an item chosen ('a **bill**CF' or 'a **p e n**CF'), directly asked for via the previous stress accent, '...a **bill**/H% or a **p e n**\L%?' In Korean (20), a VP with an ACC-marked NP ('**ton**CF-ul') typically answers the question, unlike a VP with a CT-marked object (?*'ton-**un**'). A yes/no answer is inappropriate because the alternative question is equivalent to a D-linked wh-question such as 'Which did the baby pick: a bill or a pen?' Although the set of contrasted alternatives here is contextually closed, a wh-question is not answered by a yes/no question. Non-D-linked wh-questions also require a focus-marked element of information focus although they are not CF-marked.

The alternative question is an exclusive disjunction in the speaker's mind; s/he therefore expects an exhaustive answer. One of the disjuncts is chosen as the answer, and the disjuncts are interpreted exhaustively. An inclusive reply ('both') or a nonexhaustive reply is therefore inappropriate.

This approach to CF conforms to the tradition of Bolinger's (1961) 'contrastive' interpretation in (25), Chafe's (1976) 'focus of contrast' in (26a), and Lambrecht's (1995) CF in (26b).

(25) a. Shall we have a picnic or a dinner party?
      b. Let's have a **pícnic**.

(26) a. **Rónald** made the hamburgers.
      b. Pago **ío**.
          '**Í** pay.'

Unlike the answers to simple wh-questions, the answers in (26) are understood as having been selected from a set of limited alternatives, although there is no explicit alternative question preceding the CF. It is generally agreed that the accent on these 'contrastive' elements is identical to the accent on the answers to wh-questions, but it normally feels that the 'contrastive' questions have stronger accents.

CF scrambling in German (Choi 2000) and English (Carlson 1983) is indicated with an H* and presupposes an alternative question. It is also distinct from a CT, which presupposes a conjunctive question, with a hat (√) accent or a contrastive contour (L+H*LH). In this sense, Choi's identifying a CT (marked by *-nun* in Korean) with the former is not correct. Steedman (2000) treats CT as 'theme' just as Buring had treated CT as 'topic', unlike in Buring (2000), where Buring newly introduces the term 'contrastive topic'. Steedman (forthcoming) introduces the concept of 'kontrast' (Vallduvi et al. 1998) but keeps the term 'theme' and fails to show the conveyed meaning in his combinatory categorical grammar (CCG) representation.

4. Contrastive Focus and F-marking

4.1 F-marking and CF-marking

For the analysis of CF, I will adopt Schwarzschild's (1999) notions of *GIVEN*, *F-marking*, and *AvoidF*. But I extend *F-marking* to *CF-marking* by a proposed alternative question presupposition. Typologically, in Italian and Romanian given information is not de-accented, contrastively focused elements already lacking accent (Ladd 1996). Consider how *GIVEN* is defined:

(27)   An utterance U is *GIVEN* iff it has a (salient) antecedent A which entails U (modulo type-shifting)
∃x(green-apple(x)) *ENTAILS* ∃x(apple(x)) (Schwarzschild (1999))
(Except non-intersective adjectives, however: *fake gun* does not entail *gun*.)

In a join semilattice, a (local) top type is entailed and thus given by its lower types in the ontological type/sort hierarchy: male/female→gendered, gorilla/monkey→animal. Also:

(28)   *No man* and strong NPs(=GQs) such as *every man, both women* are given, whereas weak ones such as *some children, nine children* are not. Still F-markable..

(29)   Selkirk (1996) and Schwarzschild (1999)
Embedded F-markers indicate novelty in the discourse. The absence of *F-marking* indicates givenness in the discourse.

(30)   {What did Sam's mother do?}
A: She [**praised**$_F$ him] $_F$, *him* not F-marked. By *AvoidF*, F-mark as little as possible, without violating *GIVEN-ness*.

(31)   Existential closure of the interrogative (Karttunen 1977)
a.   Who saw Bill?
b. $\lambda p \exists x[p \& p=saw(x, b)]$
Replace wh-expressions with indefinites

(32)   {Who did Sam's mother praise?}
A: She praised **him**$_{CF}$, non-constituent 'Sam's mother praise' given (cf. Steedman 2000), cf. *She praised him.

Schwarzschild (1999) explains how IP, VP, and [praised] are *GIVEN* via *ENTAILS*. *Him* is also given as it has an antecedent with which it co-refers.
     In contrast, my proposed CF-marking is realized as in (33):

(33)   {Sam drove Mary's red convertible. What did he drive before that?}
A: He drove her **blue**H*$_{CF}$ convertible.
{Did he drive her x color convertible or her y color convertible?}
F-marking on *blue* may not be omitted, but CF-marking on it also occurs because of a given alternative in the discourse.

(34)   {Mary's old convertible is no longer available. What is Sam going to do?}
A: He'll [**rent**H*$_F$ her **new**H*$_{CF}$ convertible]$_F$

(35)   Is he going to do something about the **old**H* convertible or do something about the **new**H* convertible?

Extension to the F-marking in interrogatives can also be done:

(36)   {I bought a watch for my younger sister}
        Q: What did you buy for your **old**er$_{CF}$ sister?
        The F-marking in the question is in keeping with *GIVENNESS*. The question itself is not F-marked but *GIVEN*:

 [(37)] *ENTAILS* $\exists X \exists y$[I bought y for my X sister]   but X is restricted to an alternative question:

(37) Did you buy something for your **young**er$_{CF}$ or **old**er$_{CF}$ sister?

4.2 Yes/No (=*verum*) Qs as CF

(38)   a.   Did Sam **leave**$_{CF}$?

        Alternative question:
        b.   Did Sam leave or (did he) not (leave)?
             No, he didn't.
             $\exists X[X(Sam)]$] is entailed by: (Then), what did/is Sam do(-ing)?
             'He is working in the kitchen' supplies further information.

(39)   Did **Sam**$_{CF}$ leave?
        meaning, 'Is it Sam who left?' or 'Who left, Sam?'
        (see also Wee 2002)

(40)   **Sam**$_{CF}$ -i   ttena-ss-ni?   (Exclusive)
              -NOM leave-PAST-DEC
        'Did **Sam**$_{CF}$ leave? (see 4.3 below)

4.3 CF as Exclusive (Exhaustive) Focus

(41)   **Nay**$_{CF}$-ka   nayl-kkey
         I-NOM   pay-will
        '**I**$_{CF}$ will pay.'

(42)   Will **you**$_{CF}$ pay, or shall **I**$_{CF}$ pay?

In (41) the competition shown in (42) occurs, with a pair of alternatives. It is obvious from the context. Note that the CF-marked subject in (41) is NOM-case-marked, never TOP-marked. This is also true of Japanese.

4.4 Correctives as CFs

(43)   {Sam borrowed the book that Max had purchased.}
  a.   No, **Mary**_{CF} borrowed it.   cf. (44)
  b.   No, Max **borrowed**_{CF} it.   cf. (45)

The response of (43a) contradicts the main clause assertion that Sam did the borrowing.

(44)   Did **Sam**/H% or **Max**\L% borrow the book?
  [bi-clausal intonations after ellipsis]

The response of (43b) contradicts the predicate information of the relative clause.

(45)   Did Max **purchase**/H% or **borrow**\L% the book?

Similarly in Korean, a CF is generated by a corrective:

(46)   Yumi-ka atul-ul   nah-ass-e
      -NOM son-ACC give.birth.to-PAST-DEC
    'Yumi gave birth to a son.'

(47)   Ani.ya, **ttal**_{CF} -ul   nah-ass-e
    no   daughter-ACC give.birth.to-PAST-DEC
    'No, (she) gave birth to a daughter.'
    (CF-marking in (48))

(48)   Yumi-ka   atul-ul   nah-ass   -ni/H%, (animyen)
      -NOM son-ACC give.birth.to-PAST -Q   if.not
    ttal-ul   nah-ass   -ni\L%?
    daughter-ACC give.birth.to-PAST -Q
    'Did Yumi give birth to a son/H% or a daughter?'

(49)   Yumi-ka   ai   nah-ass   -ni?
      -NOM child give.birth.to-PAST -Q
    'Did Yumi give birth to a child?'
    (join operation in a join semilattice)

  A: Ung, ttal/atul nah-ass-e
      yes   daughter/son give.birth.to-PAST-DEC
      'Ya, (she) gave birth to a daughter/son.'
      (a 'yes' after the question in (49) follows naturally)

In (49), 'child' constitutes a local top type in a join semilattice with 'daughter' and 'son' as lower type elements. So, daughter/son *ENTAILS* child and is informative. Thus, it serves as an answer, as in (49a). CF can appear with subjects, objects, datives, and obliques as well as with predicates. Dik et al. (1981) views the association of the additive *also* as CF but it is hardly 'contrastive'; when propositionally considered, it is in fact harmonious with the given items.

4.5. Alternative-question–CT Reply Pair

In (50), a total (universal) and a partial (existential) predicate appear in an alternative question. The answer can be as in (50a) with a total predicate in a

CT but not as in (50b) with a partial predicate in a CT. NEG > Total Predicate constitutes a CT, but NEG > Partial Predicate does not. A negative Contrastive Predicate Topic conveys a weaker positive predicate meaning (Lee 2000). Consider:

(50) cuk-ess ni/H% sal-ass   ni\L%??
      die-PAST Q   live-PAST Q
      'Is (she) dead or alive?'
      a. cuk-ci-**nun** anh-ass-e   [total=universal predicate]
          die-CI-CT   not-PAST-DEC   (Yoon 1997)
          '(She) is not **dead**$_{CT}$.'
          i.e. she is not entirely dead or healthy.
      b. ?*sal-ci-nun anh-ass-e   [partial=existential predicate]
          live- CI-CT neg- PAST-DEC
          '?*(She) is not **alive**$_{CT}$.'
          i.e. she is not entirely alive or sick.

An exclusive interpretation is guaranteed by stress or a particle:

(51) a. **Sam** *or* **Mary** must leave.
          [the contrasted elements bear primary stress and the disjunction
          or bears secondary stress]
      b. *Either* **Sam** *or* **Mary** must leave.
          Either, both, neither—'focus particles' (Hendriks 2001); restrict
          alternatives to two.

5. Reciprocally Contrastive Focus

We will also try to see how far all other instances of CF can be reduced to a reply to alternative questions assumed in their previous contexts. Consider the answer in (52) (Buring 2000) paired with the alternative (disjunctive) question in (53):

(52) I told you: **Carl**$_{CF}$ sued the **company**$_{CF}$.

(53) I didn't get it. Did Carl sue the company, or did the company sue Carl?

(52) is a reciprocally contrastive focus coming from the alternative disjunctive question in (53) with contrastively focused elements. Similarly:

(54) A **Canadian**$_{CF}$ farmer talked to an **American**$_{CF}$ farmer.

(55) Did a **Canadian**$_{CF}$ farmer talk to an **American**$_{CF}$ farmer or an **American**$_{CF}$ farmer talked to a **Canadian**$_{CF}$ farmer?

(54) is a reciprocally contrastive focus coming from the reciprocal alternative question in (55). It is a closed set of alternatives subject to a stronger contrastive focus rather than a weaker kind of focus that can have a set of multiple alternatives.

We have considered all possible instances of CF and conclude that they all have alternative disjunctive questions as their previous context.

6. Inappropriate Alternative Questions

There are inappropriate alternative questions such as (56):

(56) #Does Mary own a truck or does she own a red truck?

(57)   a. #Either Mary owns a truck or she owns a red truck.
        b.   {w: Mary owns a red truck in w} |
              {w: Mary owns a truck in w}
              (Simons 2000)

The second disjunct of (56) (as well as (57a)) entails the first. It can be asked when the first is established/presupposed/given. Because of the subset relation in (57b), the result of updating the context set c with the disjunction as a whole is the same as what we get if we updated c with the first disjunct. The relevant informativity of (56) turns out to be equivalent to the simple 'Does Mary own a truck?' So, (56) violates the simplicity condition, according to Simons (2000).

7. Concluding Remarks

Because of the function of exhaustiveness and the exclusion of alternatives in CF and the pragmatic tendency of (information) focus, the boundary between CF and focus is not as clear as the distinction between topic and CT. CF, generated by the D-linked *which* interrogatives, requires a closed set of disjunctive alternatives determined by the discourse, whereas focus requires a looser set of alternatives. 'Contrastive Focus' is a focus, as its head noun indicates. Naturally, it is case-marked in Korean and Japanese just like an information focus, whereas CT is *-nun*-marked just like a non-contrastive topic. A CF effect is generated when the disjunction operator has wide scope over the wh-operator. The relevant semantic and pragmatic distinctions are supported by correlated compositional intonation.

The idea of alternative disjunctive questions proposed here as a testing device for CF, however, clearly distinguishes it from CT. Although CT and CF do have a weak notion of *contrast* in common with a contextually closed set of alternatives. The distinction also demonstrates that we need scale semantics incorporated into the phenomenon of Contrastive Predicate Topic, contra Rooth (1995) and Buring (2000), who attribute the conveyed contrasted proposition to a conversational implicature. The unrealized conveyed meanings are not conversational implicatures. They are conventional and may be more than 'implicatures', in line with argumentation logic (Krabbe 2000) and multi-propositional claims by Bach (1998) and Neale (2000). A CT utterance is a concessively admitted part and the unuttered part of the conveyed meaning is often more asserted in argumentation. Furthermore, for a CT utterance to be completely true the conveyed conventionally associated proposition must also be true.

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