

# **Fragment Answers with Correction: A Direct Interpretation Approach\***

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# ABSTRACT

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Fragment answers have received much attention as a type of elliptical constructions and often been taken as involving move-cum-deletion processes from a sentential source. This sentential approach is challenged by the fragment answer followed by correction (e.g., A: *Where are you running to?* B: *To school, but I am not running*) since its putative sentential source would contradict with the statement of correction following the source. This paper reviews three possible directions to account for such a form-function mismatch phenomenon and suggests that a direction interpretation approach referring to a structured discourse can offer a more viable analysis than a quotation-based sentential analysis.

## KEYWORDS

fragment answer, correction, Pom Pom dialogue, direct interpretation, question-underdiscussion, mixed quotation

# 1. Introduction

Fragment answers are non-sentential utterances (NSU) that function as a reply to a *wh*-question, as illustrated by the following:

- (1) A: What do they want now?
  - B: Freedom.

The fragment answer here is an incomplete sentence but receives a propositional meaning such that they want freedom now. There have been two main directions to account for this propositional meaning from a fragment answer: deletion-based sentential approaches and direct interpretation (DI) non-sentential approaches. The deletion-based approaches assume that fragments are derived from full-sentential source together with move-and-delete operations (see, among others, Hankamer 1979, Morgan 1989, Merchant 2005, Weir 2014). For instance, the derivation of the fragment answer in (1B) starts from the usual syntax of a declarative sentence constructed from referring to its antecedent clause, moves the focus bearing NP *Freedom* to the left peripheral position, and then elide the remaining clause:

(2) [<sub>FP</sub> Freedom [they want \_\_\_\_ now]].

The meaning of each fragment is thus derived from the corresponding full sentential structure, preserving the usual mapping process between syntax and semantics.

Meanwhile, the nonsentential DI approaches assume that the complete syntax of a fragment is just the categorial phrase projection of the fragment itself (see, among others, Barton 1990, Ginzburg and Sag 2000, Culicover and Jackendoff 2005, Jacobson 2016, and Kim and Abeillé 2019). Within this view, the fragment answer *Freedom* can be projected into a sentential utterance with a simple syntactic structure like the following:

(3) [s [NP Freedom]].

With this simple syntax, the propositional meaning of the fragment is attributed to a special mapping mechanism.<sup>1</sup>

Both sentential and nonsentential approaches, however, are challenged by fragment answers with correction

- (4) A: Where are you running to?
  - B: To school, but I am not running.

The fragment *To school* here serves as an answer to the preceding *wh*-question, but this is followed by a correction sentence that negates the original verb. The key issue of such a dialogue, called Pom Pom Dialogue by Lipták (2020),<sup>2</sup> is that the putative clausal source for the fragment contradicts with the following denying sentence, as shown in the following:

<sup>&</sup>lt;sup>1</sup> For instance, Culicover and Jackendoff (2005) introduce syntax-semantics rules that allow the fragment orphan XP to function as an utterance (U) 'embedded in an indirectly licensed (IL) proposition and the orphan to be semantically linked to an appropriated antecedent (through the function F) provided by the context. See Culicover and Jackendoff (2005: 265) for details.

<sup>&</sup>lt;sup>2</sup> Pom Pom dialogues are those with question-pair styles in (3) and often used in the Hungarian cartoon series based on the short stories of István Csukás, Pom Pom.

(5) #[FP To school [I am running \_\_\_\_]], but I am not running.

What we can observe here is that the first sentential source of the fragment *To school* in (4B) asserts the proposition such that I am running to school, but the second correction statement denies this proposition. The sentential source thus leads to a contradictory statement with the following correction, questioning the validity of postulating sentential sources for fragment answer.

This type of dialogue also occurs across languages including Korean:<sup>3</sup>

- (6) A: Nwu-ka hakkyo-lo tali-e ka-ko iss-ni?
   who-NOM to.school run-CONN go-CONN exist-QUE
   'Who is running to school?'
  - B: Mimi, kulentey talli-nun kes ani-ya.
     Mimi, but run-MOD kes not-DECL
     'Mimi, but she is not running.'

This paper first discusses some key properties of such Pom Pom dialogues, and then discusses three possible analyses for the phenomenon: cleft as a sentential source, lexical accommodation, and mixed quotation analyses. After pointing out that each of these three analyses is not satisfactory enough to resolve the contradiction that occurs between a putative sentential source and its associated correction, the paper provides a discourse-based direct interpretation (DI) approach that directly licenses the projection of fragment answers without any derivational or movement processes.

### 2. Basic Properties

As noted, Pom Pom dialogues typically consist of a *wh*-question, a fragment answer, and a correcting statement:

- (7) A: Who is crying there?
  - B: Mimi, but she is not crying.

As seen from here, the speaker utters a *wh*-question asking a possible value for the variable linked to the *wh*-expression. The responder first replies to the *wh*-question with a fragment answer, and then points out with a correction that the speaker identifies the situation in a wrong way. The correction is basically negating the predicate in the wh-question. As noted, Korean is not different in this regard:

(8)	A:	Ceki	nwu-ka	wul-ko	iss-ni?			
		there	who-NON	M cry-CON	N exist-QU	E		
		'Who is crying there?'						
	B:	Mimi,	hajiman	wul-ko	iss-nun	kes	ani-ya.	
		Mimi	but	cry-CONN	exist-MOD	kes	not-DECL	
		'Mimi, but (she) is not running.'						

The speaker, misjudging that someone is crying there, asks who the person is. The responder first answers the question with a fragment, but then corrects the misjudgement situation.

<sup>&</sup>lt;sup>3</sup> The bound noun kes with no glossing is similar to what or who, introducing a cleft clause. See Section 2.1

As noted by Lipták (2020), the predicate of the *wh*-question in general contains a manner component. The typical predicates occurring in such dialogues include manner-of-motion verbs (*run, jog, rush, trot, stroll, march, hop*), manner-of-speaking verbs (*shout, cry, mumble, mutter, yell*), and verbs of ingesting (*devour, gobble, gulp, munch, nibble, gorge*). However, verbs with no manner component can also be used in such Pom Pom dialogues:

- (9) Context: Speaker A hears speaker B talk negatively about some people.
  - A: Who do you hate most?
  - B: Sue. But I don't hate her, I find her irritating. (Lipt'ak 2020)

The predicate *hate* includes no manner component in its lexical semantics, but it can be used in such a dialogue in a natural way.

Korean is also similar to English in this respect. Predicates involving a manner component are natural in Pom Pom dialogues, but those without it can also naturally occur in the dialogues:

- (10) A: Ne-nun nwuku-lul kacang salangha-ni? you-TOP who-ACC most love-QUE 'Who do you love most?'
  - B: Mimi, hajiman salangha-nun kes-i ani-ko coh-a ha-y. Mimi but love-MOD kes-NOM not-and like-CONN do-DECL 'Mimi, but I do not love her, but like her.'
- (11) A: Nwu-ka chimtay-eyse acik ca-ko iss-ni? who-NOM bed-at still sleep-CONN exist-QUE 'Who is still sleeping in the bed?'
  - B: Mimi. hajiman ca-ko iss-nun kes-i ani-ko nwuw-e Mimi. but sleep-CONN exist-MOD kes-NOM not-and lie.down-CONN iss-e. exist-DECL 'Mimi, but she is not sleeping. She is lying down there.'

Neither the verb *salangha*- 'love' nor *ca*- 'sleep' here involves a manner component, but each can naturally occur in Pom Pom dialogues.

The speaker's misconception needs not be expressed by a *wh*-question. It can be a polar question as long as it contains a contrastive non-predicative element (Lipták 2020):

- (12) A: Are you running to SCHOOL?
  - B: No, to the PLAYGROUND. But I'm not running.

The directional PP *to school* and *to the playground* offer contrastive information and a correction follows the PP fragment answer. The same phenomenon is observed in Korean:

(13) A: NAY-KEY hwanay-ko iss-ni? I-to angry-CONN exist-QUE 'Are you angry at me?'
B: ani, MIMI-EYKEY. kulentey hwanay-nun kes ani-ya. no, Mimi-to but angry-MOD kes not-DECL 'No, to Mimi. But I am not angry (at her).' The polar question has a focus, *nay-key* 'I-to', contrasting with the fragment answer *Mimi-eykey*. The fragment answer is then followed by a statement repairing the speaker's misunderstanding of the situation in which the referent of the fragment answer participates.

In a similar manner, a declarative sentence can also be used with a contrastive non-predicative expression. Consider the following English and Korean examples:

- (14) A: Mimi is running to SCHOOL.
  - B: No, to the PLAYGROUND. But she is not running.
- (15) A: Mimi-ka HAKKYO-LO talli-e ka-ko iss-ney. Mimi-NOM school-to run-CONN go-CONN exist-DECL 'Mimi is running to school.'
  - B: ani, cip-ulo. Kulentey talli-e ka-ko iss-ci-nun anh-a. no home-to but run-CONN go-CONN exist-CONN-TOP not-DECL 'no, to home, but she is not running to home.'

In both of the English and Korean examples, the declarative statements include a contrastive focus linked to the fragment answers. The answers are then followed by a statement correcting the speaker's misunderstanding of the situation from the responder's perspective.

The examples we have seen so far all repair the predicate uttered by the questioner. One thing worth noting is that in *wh*-questions, the correction can be even for a non-predicate expression:

- (16) A: Who received the luxury bag as a bribe?
  - B: Mimi, but she didn't receive it as a bribe. She received it as a gift.

The correction here is not about the predicate but about the bribe. A similar possibility is also observed in Korean:

(17) A:	Nwu-ka	myengpwhum kapang-ul		noymwul-lo	pat-ass-ni?			
	who-NOM	luxury	bag-ACC	bribe-as	receive-PST-QUE			
	'Who received the luxury bag as a bribe?'							
B:	Mimi, hajiman senmwul-lo pat-ass-tey.							
	Mimi but	gift-as	receive-I	PST-DECL				
	'Mimi, but she got it as a gift.'							
B':	Mimi, hajiman myengpwhum ani-ya.							
	Mimi but	luxury	not-D	ECL				
	'Mimi, but it isn't a luxury one.'							

The response in B and the one in B0 both have the same fragment answer replying to A. However, the difference is what is corrected. In B, the correctum is about 'as a bribe' vs. 'gift' while in B', it is about luxury or not. As we will discuss more in Section 4.2, correction can refer to any salient expression (predicate or argument) in the antecedent discourse.

# 3. Three Possible Approaches

As noted earlier, fragment answers followed by correction raise potential difficulties to the sentential analyses, since the putative clausal source would contradict with the following correcting statement. As pointed out and suggested by Lipták (2020), there are three possible directions to account for the phenomenon. What follows discusses the idea of these three and the potential difficulties each direction would encounter.

### 3.1 Cleft as a Sentential Source

As suggested by Craenenbroeck (2010) and Barros (2014), fragment answers could be linked to a cleft pseudo-cleft clause.

- (18) A: What is she devouring?
  - B: A pizza, but she is not devouring.

The possible cleft sources would be something like the following with the correction statement:

(19) a. #It is a pizza that she is devouring, but she is not devouring it.b. #What she is devouring is a pizza, but she is not devouring it.

What we can observe here is that even the cleft source yields a contradiction with the following correction statement, as also pointed out by Lipták (2020).

The Korean data we have seen so far includes a cleft-like expression in correction. Consider the following dialogue:

- (20) A: Mwues-ul keykelsulepkey mek-ko iss-ni? what-ACC greedily eat-CONN exist-QUE 'What is she devouring?'
  - B: phica, hajiman keykelsulepkey mek-nun kes ani-ya. Pizza but greedily eat-MOD kes not-DECL 'Pizza, but (she) isn't devouring it.'

The fragment answer *phica* 'pizza' serves as a legitimate answer to the preceding *wh*-question. Note that the correction here includes the bound noun *kes*, which can introduce a pseudo-cleft construction in the language: (Kim 2016b, Kim 2016a):

(21) a. Phica-lul mek-un kes-un Mimi-ta. pizza-ACC eat-MOD kes-TOP Mimi-COP-DECL '(lit.) Who ate pizza is Mimi.'
b. Mimi-ka mek-un kes-un phica-i-ta. Mimi-NOM eat-MOD kes-TOP pizza-COP-DECL 'What Mimi ate is a pizza.'

Considering the uses of *kes* in cleft as well as in the correction, it is tempting to assume a cleft source for fragment answers with correction. However, there are several facts that make the cleft source analysis questionable. First, the cleft source still contradicts the correction that follows it:

- (22) keykelseulepkey mek-un kes-un phica-ya. hajiman keykelsulepkey mek-nun kes greedily eat-MOD kes-TOP pizza-DECL but greedily eat-MOD kes ani-ya. not-DECL
  - '(lit.) What she devoured is pizza, but Pizza, but (she) isn't devouring it.'

Another issue arises from case marking facts. The fragment answer can have a structural case marking, but the same case marking is not allowed to the focus expression in the cleft source (Kim 2015b):

(23) a. \*Phica-lul mek-un kes-un Mimi-ka-i-ta. pizza-ACC eat-MOD kes-TOP Mimi-NOM-COP-DECL '(lit.) Who ate pizza is Mimi.'
b. \*Mimi-ka mek-un kes-un phica-lul-i-ta. Mimi-NOM eat-MOD kes-TOP pizza-ACC-COP-DECL 'What Mimi ate is a pizza.'

As noted here, neither NOM nor ACC marked-focus is licensed in traditional cleft sentences. However, nothing is wrong with a structural case marking to the fragment answer:

- (24) A: nwu-ka phi-ca keykelsulep-key mek-ko iss-ni? who-NOM pizza-ACC devouring.manner eat-CONN exist-QUE 'Who is eating the pizza in a devouring manner?'
  - B: Ung. Mimi-ka. yes, Mimi-NOM 'Yes, it is Mimi.'

'Mimi devoured a pizza.'

Another issue can arise from multiple *wh*-questions (Kim 2015b):

(25) A: nwu-ka mwuess-ul keykelsulepkey mek-ess-ni? who-NOM what-ACC greedily eat-PST-QUE 'Who devoured what?'
B: Mimi-ka phica-lul. Mimi-NOM pizza-ACC

As seen from here, the language allows multiple fragment answers to the multiple *wh*-question. However, note that it is disallowed to have multiple foci in cleft:

(26) \*keykelsulepkey mek-un kes-un Mimi-ka phica-i-ta.
 greedily eat-MOD kes-TOP Mimi-NOM pizza-COP-DECL
 'It was Mimi that devoured a pizza.'

The contrast of the case marking in the fragment answer and the focused one in the nonelliptical cleft clause thus questions the postulation of a clefting source for fragment answers.

#### 3.2 Accommodation of Lexical Content

Another possible direction, as suggested by Lipták (2020), is to assume that there is an accommodated antecedent for the fragment answer:

- (27) A: Who are you shouting at?
  - B: My sister, but I am not shouting. (I am just speaking to her loudly).

As hinted by the expression in the parentheses, the responder's fragment answer is not for the situation of shouting, but for that of speaking, which can be a supertype of shouting. In this sense, the responder accommodates the situation.

Lipták (2020) suggests that this accommodation process can be represented by the notion of QUD (question-under-discussion). That is, the *wh*-question here evokes not a QUD of who you are shouting at, but a more general, less specific QUD of who you speaking to loudly. There is thus a subsumption relation between the *wh*-question and the accommodated *wh*-question: <sup>4</sup> In this direction, the accommodated meaning can be taken as the at-issue meaning while the manner component as non-at-issue one, as in the following (see Lipták 2020: (12) for the discussion with devouring):

- (28) a. At-issue:  $\lambda x \exists e \text{ speak } (e) \land AGENT (e, you) \land GOAL (e, x)$ 
  - b. Non-at-issue: manner-of-shouting (e)

As presented here, the fragment answer provides an at-issue content to the QUD evoked from the speaker while the manner component provided by the predicate provides a non-at-issue meaning which is not part of the QUD but linked to the correction after the fragment.

This kind of two dimensional approach may be supported from the observation that an adjunct material is typically ignored in ellipsis, as noted by Thoms (2015):

- (29) a. I saw your damn dog in the park, but you couldn't.
  - b. Children always learn a language without knowing how.
  - c. John is probably running late, although I don't know why.

The proper interpretation of the elided part does not include the adjective *damn* or the adverb *always* or *probably*. The elided part here is most appropriately paraphrased as "you couldn't see the dog", "how they learn it", and "why John is running late", respectively. However, note that the manner adverb is in general included in ellipsis:

- (30) a. The dog quickly ran after the ball, although I don't know why.
  - b. They ate the food in a hurry, and she wondered why.

The interpretation of the elided part here includes the manner adverb *quickly* or the phrase *in a hurry*. This thus questions the argument to place a manner component in the not-at-issue meaning.

There is another challenge, as also noted by Lipták (2020). As discussed earlier, not all predicates have a manner component. Predicates like *sleep* do not have a manner component, but can occur in Pom Pom dialogues. Further, it is not easy to find the predicate whose meaning is subsumed by a more general predicate:

<sup>&</sup>lt;sup>4</sup> A subsumption relation is a hyponym-hypernym or is-a relationship, defining which objects are members of class of objects and creating hierarchical taxonomy: A subsumes B if the set denoted by B is a subset of the set denoted by A.

- (31) Context: Speaker A hears speaker B talk negatively about some people.
  - A: Who do you hate most?
  - B: Sue. But I don't hate her, I find her irritating sleep.

The predicate *hate* does not include a manner component and further it is not easy to identify a predicate whose meaning can subsume that of this predicate.

#### 3.3 Question-based Metalinguistic Approach

Realizing such difficulties for the two options, Lipták (2020) proposes a quotation-based approach. The approach, adopting the analyses of mixed quotation set forth by Davidson (1979) and Maier (2014), assumes that the fragment answer with correction involves in fact a mixed quotation of the corrected predicate in the putative clausal source.<sup>5</sup>

For an illustration, first consider an example with mixed quotation from Maier (2014):

(32) Perry said climate change is a "contrived phony mess".

The quotation here has the same internal structure as the constituent without it, and it semantically introduces a two dimensional paraphrase:

- (33) a. Presupposition: there is an X such that x uttered the words 'contrived phony mess' to refer to X.
  - b. At-issue: climate change is X.

As represented here, the mixed quotation triggers a metalinguistic presupposition such that the quoted expression is uttered to express something.

Adopting this theory of mixed quotation, Lipták (2020) proposes that the fragment answer with correction involves a clausal source with mixed quotation, as given in the following:

(34) a. What are you devouring?

b. A pizza <I'm "devouring">, but I'm not devouring it.

As given here, the ellipsis site of the fragment contains the corrected element as a mixed quotation with metalinguistic reference. Since the quoted one has no at-issue meaning, according to Lipták (2020), there is thus no semantic contradiction between the first conjunct and the second one here. To be more precise, Lipták (2020) suggests that the quotation in (34B) triggers the presupposition of a two-place relation R while the *wh*-question induces an at-issue meaning with this R relation. This is illustrated in the following:

(35) At-issue: What are you R-ing?

Presupposition: The interlocutor used the word devour to express R.

<sup>&</sup>lt;sup>5</sup> There are at least three different types of quotation (Maier 2014).

<sup>(</sup>i) a. The word 'anomalous' has nine letters. [pure quotation]

b. "Really, I could care less about that," said Ann. [direct discourse]

c. Ann said that she "could care less" about spelling. [mixed quotation]

Mixed quotation, differing from the two others, functions both as the direct quotation (Ann said 'she could care less about spelling') and indirect one (Ann said that she could care less about spelling). See Maier (2014) for details.

This quotation-based account in a sense makes the meaning of the predicate denote just a basic relation (R), thus avoiding the contradiction issue.

However, the mixed quotation based analysis appears to raise several hard questions. First, the main motivation of the quotation-based approach is to save syntactic identity. To be precise, there is no exact identity: the putative source adds quotation marks on the correlate of the fragment answer, which assigns no at-issue meaning to the quoted expression. The quotation also introduces a presupposition concerning the quoted expression. The quotation allows us to introduce a quoted expression, and is if there is any presupposition involving.

There are also important differences between the expression with a mixed quotation and the one without. Maier (2014) notes that the opacity property of mixed quotation blocks substitution of coreferential or synonymous terms. That is, when there is no quotation, two synonymous words can be interchangeable, but this is not possible with a mixed quotation:

- (36) a. John said that he wants to buy all of it.b. ≈John said that he wants to purchase all of it.
- (37) a. John said that he wants to "buy all of it".b. ≠John said that he wants to "purchase all of it".

(36a) and (36b) describe the same situation of a transaction. However, as seen in (37a) and (37b), synonyms like *buy* and *purchase* within the quotation cannot be exchangeable. This is why (37b) cannot go along with John's utterance of *Great! I will purchase all of it* (Maier 2014):

Another question arises with examples where the correction is not for a preceding predicate but for a non-predicate:

- (38) A: Who is running to school?
  - B: Mimi, but she is not running to SCHOOL, but to HOME.

As given here, the correctum is not for the predicate, but for the PP argument. The mixed quotation analysis would assign the following putative source:

(39) Mimi is running to "school", but she is not running to school.

Further, the two dimensional paraphrase would be something like the following:

(40) At-issue: Who is running to X?Presupposition: The interlocutor used the word *school* to refer to X.

Observe that a more plausible interpretation of the fragment answer here:

(41) Mimi is running, but she is not running to school, but running to home.

What we can observe here is that there is no need to introduce a mixed quotation. As long as the putative source of the fragment excludes the PP argument, a clausal source for the fragment, would obtain a natural flow of interpretation.

A similar situation happens when the correction is for a manner adverb:

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- (42) A: Who was running to school so fast?
  - B: Mimi, but she was not running FAST.

Given that the fragment answer requires a clausal source that is syntactically identical to the preceding antecedent, we would have a contradiction as given in (43a). However, an intuitive interpretation given in (43b) would not lead to a contradiction if it excludes the manner adverb:

(43) a. #Mimi was running to school, but she was not running to school fast.

b. Mimi was running to school, but she was not running fast.

What these examples imply is that correction does not force us to introduce a mixed quotation but it asks the fragment answer to refer to a proper semantic or discourse antecedent, but not a syntactic one.

Main arguments for the sentential analysis hinge on connectivity and island effects (Merchant 2005). In the present context, this implies that the quoted one cannot reside in an island. However, note that it is quite natural to have an allegedly quoted expression in an island and a correction can refer to this expression:

(44) A:	Nwu-ka t	okile-lul	ha-nun	salam-ul	koyongha-ci?			
	who-NOM (	German-ACC	do-MOD	peson-AC	CC hire-QUE			
	'Who is hiring a person who can speak German?'							
B:	Samsung.kul	entey tokile-	ka	ani-ko	ithalie-ya.			
	Samsung.but	Germa	n-NOM	not-and	Italy-DECL			
	'Samsung, but it is not German but Italy.'							

The fragment answer provides a possible value of the *wh*-expression, but the correction refers to the expression within the island. The quotation-based approach places the quotation in an island. As suggested by Lipták (2020), the corrected element might appear in the ellipsis site with metalinguistic reference, but this element is needed to be free from island constraints, undermining the move-and-delete clausal analysis that places high emphasis on the syntactic structure.

## 4. A Direct Interpretation Approach

As discussed in the previous section, each of the three solutions seems to have potential difficulties to account for fragment answers with correction. I suggest that a more viable option is a direct interpretation approach that licenses fragment answers with no sentential source.

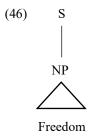
#### 4.1 Resolving Fragment Answers

Departing from the deletion-based approach that posits a clausal source for fragment answers, the DI (direct interpretation) approach generates the meanings of the unpronounced material with no underlying syntactic structures (Ginzburg 2012, Sag & Nykiel 2011, Kim 2015a, Kim & Abeillé 2019). Within the DI approach, there is no syntactic structure at the ellipsis site and fragments are the sole daughter of an S-node, directly generated from the following construction (Ginzburg and Sag 2000, Kim 2015b, Kim and Abeillé 2019):

#### (45) Head Fragment

Any category can be projected into a NSU (non-sentential utterance) and function as a salient utterance (SAL-UTT).

The construction allows any maximal projection (functioning as a salient utterance) to serve as a NSU (nonsentential utterance) with no reference to ellipsis. This simple syntax, following the philosophy of Simpler Syntax Hypothesis (Culicover and Jackendoff 2005, Ginzburg and Sag 2000), posits no syntactic structure at the ellipsis site of fragments. The fragment answer Freedom in (1) itself thus functions as the sole daughter of an S-node:



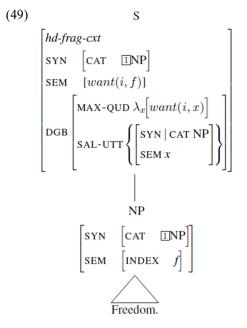
In the DI approach supported here, the resolution of the NSU is achieved by discourse-based machinery. That is, the interpretation of a fragment depends on the notion of 'question-under-discussion' (QUD) in the dialogue. Dialogues are described via a Dialogue Game Board (DGB) where the contextual parameters are anchored and where there is a record of who said what to whom, and what/who they were referring to (see Ginzburg 2012). DGB monitors which questions are under discussion (QUD), what answers have been provided by whom, etc. As the dialogue progresses, the value of QUD is constantly being updated and the relevant context offers the basis for the interpretation of fragments. For example, uttering the question *What do they want*? in (1a) will activate the following information:

(47)  $\begin{bmatrix} \text{FORM} \langle \text{What do they want now?} \rangle \\ \text{SYN S} \\ \text{SEM } \lambda_x [want(i, x)] \end{bmatrix}$ 

With this utterance, DGB, as updating the contextual information, also evokes two relevant attributes SAL-UTT (salient-utterance) and MAX-QUD (maximal-question-under-discussion):

(48)  $\begin{bmatrix} MAX-QUD \ \lambda_x [want(i, x)] \\ BAL-UTT \left\{ \begin{bmatrix} SYN \mid CAT \ NP \\ SEM \ x \end{bmatrix} \right\} \end{bmatrix}$ 

The feature MAX-QUD, representing the question currently under discussion, takes as its value *questions*. SAL-UTT, taking as its value syntactic as well as semantic information, represents the utterance which receives the widest scope within MAX-QUD. In the present context, the *wh*-question thus asks what they want now (QUD) and this information linked to the *wh*-phrase (the index value) functions as the SAL-UTT (a focus establishing expression). The fragment answer *Freedom* then serve as a proper answer to this. Since the fragment answer is a focus expression linked to the salient utterance of the previous *wh*-question (DGB), it can be projected as a head-fragment construct together with the relevant dialogue information, as given in the following:



This fragment answer is a well-formed stand-alone clause licensed by the Head-Fragment Construction that requires the CAT value of the fragment to be matched to that of the SAL-UTT. For instance, consider the following Korean dialogue:

- (50) A: Cikum mwues-ul wonha-ci? now what-ACC want-QUE 'What do they want now?
  - B: cayu(-lul)/\*cayu-ka freedom-ACC/freedom-NOM 'Freedom.'

The CAT value of the salient NP in the wh-question is ACC (*mwues-ul* 'what-ACC'), and then the fragment answer also needs to have a matching CAT value. This is why the fragment answer can be ACC-marked or caseless.<sup>6</sup>

Going back to (47), the *wh*-question *What do they want now*? introduces a QUD asking a value for the object that they want ( $\lambda_x$ [want(y,x)]). The fragment *Freedom*, functioning as a salient utterance, then provides a value for this variable. This resolution process is equivalent to the view that the meaning of a question is a function that yields a proposition when applied to the meaning of the answer, as given in the following (Krifka 2001, Ginzburg and Sag 2000, Jacobson 2016):<sup>7</sup>

- (51) a. meaning of the Q:  $\lambda_x$  [*want*(*y*, *x*)]
  - b. meaning of the fragment Freedom: f
  - c. fragment answer applied to the Q:  $\lambda_x [want(y, x)](f) = [want(y, f)]$

<sup>&</sup>lt;sup>6</sup> As noted by Kim (2015b) and Kim (2016b), the caseless NP subsumes the cased-marked NP.

<sup>&</sup>lt;sup>7</sup> This 'structured meaning' approach differs from the 'propositional set' approach where the meaning of questions denotes sets of propositions (see Hamblin 1973, Karttunen 1977, Groenendijk and Stokhof 1984).

The fragment answer is thus properly resolved to yield a propositional meaning. The analysis, requiring neither clausal sources nor movement operations, utilizes the information evoked from the context.

As noted, uttering a question evokes a new QUD, indicating that the speaker tires to resolve the QUD. One thing worth noting is that the uttered QUD can also evoke sub-QUDs introduced by logical inferences (Büring 2003). For instance, the question of *Who ate what*? will have several sub-QUDs such as *Who ate apples, Who ate bananas, Who ate the burrito*?, etc. In a similar manner, the utterance of (52a) would also evoke sub-QUDs in (52b)-(52d):

- (52) a. Who ran fast in the yard?
  - b. Who ran in the yard?
  - c. Who ran fast?
  - d. Who ran?

Also note that uttering a question explicitly establishes a matching QUD, but at the same time can implicitly introduce other related QUDs or accommodated QUDs. Consider the following dialogue:

- (53) A: What month do you want go?
  - B: Around early April. As cheap as possible.

As a dialogue participant, the responder accommodates a QUD like *What kind of price do you want for the ticket?* and, as an answer to this QUD, B utters an NSU *As cheap as possible.* Such an example illustrates that as a given dialogue moves, the updating processes of the DGB in question can continue to keep discourse coherence (Larsson et al. 2000).

#### 4.2 Resolving Fragment Answers with Correction

Let's consider a typical context with a correction:

- (54) A: The press is interviewing Clinton.
  - B: No, it is interviewing Hilary.

The speaker A offers a statement to share with the dialogue participant B, but B's utterance serves to correct the statement made by A. What is corrected is that the one who is interviewed is not Clinton but Hilary. B thus provides an alternative for the value of who is interviewed. The assertion and the correction describe the same situation of the press's interviewing someone.

As noted by Leusen (1994), the function of a correction in dialogues is to reject the given contextual information and offer an alternative for the rejected one. For this, there are several conditions. For a correction to be felicitous, there must be a discourse antecedent that provides the contextual information that is corrected. The interpretation of a correction thus crucially hinges on what is corrected by the given correction. In this sense, the interpretation of a correction is an instance of anaphora resolution. There also needs to be a semantic parallelism between a correction and its associated correctum. That is, the information of a correction must be contrastive to the information in its correctum. For instance, in the dialogue of (54), there are two parallel semantic representations (see Leusen 1994 for further discussion):

(55) a. A's statement: *interview*(*p*, *c*)b. B's correction: *interview*(*p*, *h*)

The second argument of the predicate *interview* provides the contrastive information between Clinton and Hilary. As such, the correction needs to identify a discourse referent of the same type. Note that syntactic identity is not a necessary and sufficient condition (Leusen 1994):

- (56) A: Mom gave Mimi a new laptop.
  - B: No, her brother has it.

The resolution process refers to the previous discourse concerning A's statement about Mom's giving Mimi a new computer (give (mom, mimi,c)), but the responder B corrects this statement by replacing the value of the second argument. But this repair process happens by B's referring to a newly accommodated QUD of to whom Mom gave a new laptop (from A's utterance) and replacing the second argument with the referent of Mimi's brother. Interpreting a correction in this way again implies that a correction is an anaphor that refers to the antecedent provided by the discourse structure.

Let us consider a simple case first. As observed, the fragment answer is linked to the salient information evoked from the *wh*-question or the previous discourse.

- (57) A: Who is sleeping on the bed?
  - B: Who is sleeping on the bed?

The following would be a resolution process for the fragment answer:

- (58) a. QUD from the *wh*-question:  $\lambda x[sleep(x, b)]$ 
  - b. meaning of the fragment Mimi: m
  - c. fragment answer applied to the Q:  $\lambda_x[sleep.on(x, b)](m) = [sleep.on(m, b)]$

The responder at first completes the QUD value evoked by the questioner with the fragment answer. In the due course, the responder then corrects this completed statement by referring to the evoked antecedent statement:

(59) a. antecedent DGB: *sleep.on(m, b)*b. correction DGB: *lie.on(m, b)* 

From the responder's perspective, the speaker misconceived the situation as Mimi's sleeping, and this is corrected by the predicate *lie*. The semantic parallelism and the two predicates are in the contrastive information.

As noted, correction can be not only for a predicate but also for any non-predicate argument evoked in the discourse. Consider the following data set, where each one has a different correction.

- (60) A: What did Mimi buy from the teacher yesterday?
  - B: A book, but she didn't buy it. (She got it for free.)
- (61) A: What did Mimi buy from the teacher yesterday?B: A book, but she didn't buy it from the teacher. (She bought it from a friend.)
- (62) A: What did Mimi buy from the teacher yesterday?B: A book, but she didn't buy it yesterday. (She bought it from the teacher long time ago.)

In all these, the fragment answer is the same: each serves as a reply to the preceding *wh*-question. The resolution process of this fragment answer within the DI approach would evoke the QUD in (63a) from the *wh*-question, and the fragment provides a value for it:<sup>8</sup>

- (63) a. QUD from the *wh*-question:  $\lambda x[buy(m, x, t, y)]$ 
  - b. meaning of the fragment A book: b
  - c. fragment answer applied to the Q:  $\lambda_x[buy(m, x, t, y)](b) = [buy(m, b, t, y)]$

After the utterance of this fragment, the responder makes a correction, trying to update the DGB. This correction first refers to the existing, updated DGB in (63b), and applies to one of the elements:

(64) a. B's correction for (60): *get.free*(m,*b*,*t*,*y*)

- b. B's correction for (61): buy(m,b,f,y)
- c. B's correction for (62): *buy*(*m*,*b*,*t*,**l**)

As seen from the corrections, as long as we can identify one referent (including the predicate) of the same type in the antecedent clause, we can have a felicitous dialogue of correction.

Note that the corrected predicate need not be in a subsumption or hyponym relation:

(65) a. Mimi, but she is not sleeping; she is in fact sitting on it.b. Mimi, but she is not sleeping; she is awake.

Once again, we can note that the correction can be not about the predicate but about an argument:

(66) Mimi, but she is not sleeping on the bed; she is sleeping on the floor.

As seen from correction is an anaphoric phenomenon referring to the antecedent, rather than introducing a mixed quotation. This direction can offer a way to account for why correction does not happen with a *wh*-expression with sentential negation:

- (67) A: Who isn't running to school?
  - B1: Mimi.
  - B2: #Mimi, but she is running.
- (68) A: Nwuka hakkyo-lo an ttwie ka-ko iss-ci? who-NOM school-to not run-CONN go-CONN exis-QUE 'Who isn't running to school?
  - B: #Mimi, haciman ttwi-e ka-ko iss-e. Mimi but run-CONN go-CONN exist-DECL 'Mimi, but she is running.'

Given the simple mixed quotation approach suggested by Lipt'ak (2020), we would have the putative source in (69a):

 $<sup>^{8}\,</sup>$  We can represent the evoked QUD in a Neodavidsonian representation, as in Lipták (2020):

<sup>(</sup>i)  $\lambda x = buy (e) = AGENT (e, m) = PATIENT (e, x) = SOURCE (e, t) = TIME (e, y)$ 

(69) a. Mimi isn't 'running' to school, but she is running to school.b. Mimi is 'running' to school, but she isn't running to school.

Note that if (69a) induces no contraction, then (69b) would induce no contradiction, either. The present account, however, can avoid such an issue, since it refers to discourse structure rather than seeks syntactic identity. Consider the QUD information and resolution process of such a dialogue:

(70) a. QUD from the *wh*-question: λx[¬[*run.to*(*x*, *s*)]]
b. meaning of the fragment *Mimi*: *m*c. fragment answer applied to the Q: λx[¬[*run.to*(*x*, *s*)]](m) = λx[¬[*run.to*(*m*, *s*)]]

The only thing we need to accept is that the sentential negation forms a type of discourse island (similar to the Negative Island) and no correction can refer to an element within its scope. This can be supported from the fact that the narrow scope of the negated expression can be corrected, as seen from the following:

- (71) a. Nwu-ka kyeolhon-ul mos-ha-yess-ni? who-NOM marriage-ACC not-do-PST-QUE 'Who wasn't able to get married?
  - b. Mimi, kulentey kyolhon-ul mos-ha-n kes ani-ko, an-ha-n kes-i-ya. Mimi but marriage-ACC not-do-MOD kes not-and not-do-MOD kes-COP-DECL 'Mim, but it is not that she wasn't able to, but it is that she didn't do it.'

As seen from the dialogue, the fragment answer is followed by a correction that repairs the value of the negated predicate. The QUD-based DI approach, as observed here, requires neither unmotivated mixed quotations nor problematic sentential sources.

# 5. Conclusion

We have seen that fragment answers with correction challenge the postulation of sentential sources for them since the clausal sources would contradict the correctum statement that follows. As suggested by Lipt'ak (2020), there are three possible directions to avoid such an issue: cleft source, lexical accommodation, and mixed quotation-based analyses. However, we have noted that all these directions, relying on the existence of sentential sources and derivational processes, encounter not only empirical but also analytic difficulties.

This paper suggests that a more viable direction is a DI (direct interpretation) approach that projects NSUs directly from fragment answers. There is no contradiction from the beginning. The paper shows that once we have structured discourse (representing information like DGB, QUD, and salient information), discourse participants can accommodate the DGB accordingly. for correction. This discoruse-based DI approach sketched here has suggested that the fragment answer first provides an answer to the *wh*-question, establishing a shared statement first. The responder, referring to this antecedent statement as an anaphor, makes a necessary correction accordingly. The fragment answer involves no mixed quotation and no hidden clausal structure.

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Examples in: English Applicable Languages: English and Korean Applicable Level: