

Quasi-Predicatives as V''-Complements*

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0. Introduction

In this paper, I will be concerned with the syntactic and semantic properties of the elements italicized in the following examples:

- (1) a. She sat there *silent*.
- b. He arrived there *dead*.
- c. John arrived there *drunk*.
- d. He came out of prison *a changed man*.
- (2) a. I'll serve you the pizza *cold*.
- b. I'll send you the plants *alive*.
- c. He brought me the bread *buttered*.
- d. They burned her *alive*.
- e. Jesse shot him *dead*.

Following Jespersen (MEG III 355-404), I will use the term "quasi-predicative" to refer to the elements illustrated in (1) and (2). In (1), the matrix subject is understood as the antecedent or the subject of the quasi-predicatives, whereas in (2), the matrix object is understood as their antecedent. I will refer to them as QP₁ and QP₂, respectively, for convenience.

* This paper is an enlarged and revised version of a paper read at the 21st Summer Institute in Linguistics, held at the International Christian University in Tokyo in August 1982. I am very grateful to Prof. Minoru Yasui and Prof. Minoru Nakau for their many suggestions. I am also thankful to David Thompson, who supplied me with crucial data and corrected my English. All errors that may remain are, of course, entirely my own.

This work was supported by University of Tsukuba Project Research.

In this paper, it will be shown that the QP_1 and QP_2 should be attached to V'' as an adverbial modifier, and that the differences between QP_1 and QP_2 should be accounted for in terms of the internal structure and the semantic effects of the QP's.

1. Critical Survey of the Previous Studies of QP's

In this section, I will examine how QP's have been treated in the framework of transformational generative grammar.

Dowty (1972) claims that QP's, which he calls "Temporary Restrictive Adjectives" (henceforth, TRA), should be analyzed as an adverbial clause introduced by a subordinator 'when'. His argumentation is as follows:

Sentences containing TRA can always be paraphrased by a when-clause. For example, (3a) can be paraphrased as in (3b).

- (3) a. The girl married young.
 b. The girl married when she was young.

The time-adverbials which occur in the matrix clause can be moved to the TRA and when-clause without any change of meaning.

- (4) a. Thursday night I found John studying in the library.
 b. I found John studying in the library Thursday night.
 (5) a. Yesterday John came home drunk.
 b. John came home drunk yesterday.
 (6) a. Thursday night I found John when he was studying in the library.
 b. I found John when he was studying in the library Thursday night.

The TRA and when-clause cannot have a time-adverbial which is different from that of the matrix sentence. Thus,

- (7) a. *Friday morning I found John studying in the library Thurs-

day night.

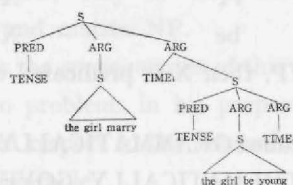
- b. *Friday morning I found John when he was studying in the library Thursday night.
 c. *Last Sunday John came home drunk last night.

Furthermore, predicates which cannot cooccur with time-adverbials cannot cooccur with the TRA and when-clause, either.

- (9) a. John said that the Washington Monument was heavy (*in 1934).
 b. *John saw the Washington Monument heavy.
 c. *John saw the Washington Monument when it was heavy.

Based on these observations, Dowty assumes that the TRA should be derived from the underlying "when-clause". Thus, he assumes that the deep structure of (3a), for example, is as follows:

(10)



Thus, Dowty seems to claim that the TRA should be analyzed as a time-adverbial clause whose internal structure is like that of the relative clause in that the TIME referent in the subordinate clause must be identical to that of the TIME in the superordinate clause.

However, as I will see later, the QP cannot always be paraphrased as shown in (3). And this analysis cannot apply to QP₂, as will be shown later. Further, as Dowty recognizes in his footnote 1, it is more natural to paraphrase (3a) as shown below in (11).

- (11) The girl was young when she married.

I will see later that the speaker's assertion in sentences containing a QP always falls on the QP itself. Thus, (11) is more natural than (3b) as a paraphrase of (3a).

Next, I will consider Williams's analysis (1980). He claims that there is a level of PREDICATE STRUCTURE between the surface structure and the logical form. PREDICATE STRUCTURE is a level of representation in which subject-predicate relation is represented as a pair of NP and X coindexed with each other by the RULE OF PREDICATION (12).

(12) THE RULE OF PREDICATION

Coindex NP and X.

This rule applies in the following environments:

(13) ENVIRONMENTS OF PREDICATION

- | | | | |
|----|----|----|---|
| a. | NP | VP | |
| b. | NP | VP | X |
| c. | NP | be | X |
- d. If X is in the VP, then X is predicated of the theme of V.

Cases (a), (b), and (c) are called GRAMMATICALLY GOVERNED CASES, and case (d) is called THEMATICALLY GOVERNED CASE. Thus, for example, (14a) is represented roughly as in (14b) in PREDICATE STRUCTURE.

- (14) a. John left nude.
 b. John_i [left]_{VP_i} nude_i.

and (15a) is represented as in (15b).

- (15) a. John gave Bill the dog dead.
 b. John_i [gave Bill the dog_j dead_j]_{VP_i}.

Further, he proposes a kind of output condition on predication.

- (16) THE C-COMMAND CONDITION ON PREDICATION
 If NP and X are coindexed, NP must c-command X or
 a variable bound to X.

This restriction on predication can be seen in the following examples:

- (17) a. John loaded the wagon full with hay.
 b. *John loaded the hay into the wagon full.
 (18) a. John_i [loaded the wagon_j full_j with hay]_{VP_i}.
 b. *John_i [[loaded the hay]_j [into the wagon_j]_{PP} full_j]_{VP_i}.

In (17a), the NP *the wagon* c-commands the X *full*. But in (17b), the NP *the wagon* is dominated by PP node, so that it cannot c-command the X *full*. Thus, (17b) violates the condition (16), and is ruled out. Here, notice that Williams analyzes QP's as a kind of true predicate, and not as an adverbial modifier, only in that there is a subject-predicate relation between QP and matrix NP.

Williams discusses the consequences of this mechanism broadly. But there are at least two problems in his proposal. First, some QP's are always ambiguous with respect to the determination of the environments of predication. For example,

- (19) a. John arrived drunk.
 b. John [arrived]_{VP} drunk.
 c. John [arrived drunk]_{VP}.

The predicate structure of (19a) is derived ambiguously in terms of the environment (13b) or (13d), though there is no ambiguity in meaning.

Secondly, consider the following sentences:

- (20) a. I gave it a wipe clean.
 b. John shot Mary dead.

In (20a), the theme of the V *gave* is *a wife*, not the NP *it*.¹⁾ Nevertheless, the QP *clean* takes the NP *it* as its antecedents. This cannot be accounted for by the environments of predication (13), since there is no grammatically governed case that applies to the relation between the matrix object and the predicate X. The same is true for (20b). It is clear that the object NP *Mary* is not the theme of the V *shot*, though there is a subject-predicate relation between *Mary* and *dead*.

Finally, let us consider the proposals of O'Grady (1982). He claims that QP's are *not* predicates, but adverbial modifiers. Consider the following examples:

- (21) a. The man arrived at the party drunk.
 b. *The man's arrival drunk was disgusting.
 c. *The arrival of the man drunk was disgusting.
 d. The man's arriving drunk was disgusting.
 e. The man's arrival while drunk was disgusting.

As shown in (21), QP's that have no preposition cannot occur in derived nominals. This suggests that the QP is not an adjectival modifier, but an adverbial modifier, which can occur freely in S. If we take gerunds as an S, then the QP can occur in them freely, as in (21d). Furthermore, if the QP is introduced by a preposition (e.g. *while*), then this PP can occur in derived nominals as in (21e), since the PP can occur freely in NP as well as in S, including gerunds.

Based on these observations, O'Grady claims that the QP is an adverbial modifier, so that it cannot occur in NP without any preposition.

Notice, however, that adverbs normally do not take part in the subject-predicate relation, whereas QP's always bear this relation to the matrix NP, as Williams (1980) points out. In the next section, I will account for these facts in terms of both the internal structure and the dominating node of the QP's.

2. Properties of Quasi-Predicatives---an Analysis

Before proposing our analysis of QP's, let us examine the properties of QP's.

Consider the following:

- (22) a. John became *a doctor*.
 b. Bill made *Mary happy*.

The italicized elements in these sentences, which have traditionally been referred to as the true predicate, cannot be omitted without any change of meaning or damaging the rest of the sentence.

- (23) a. *John became.
 b. *Bill made her.

This suggests that the elements in question strictly subcategorize their matrix verbs. Jackendoff (1977) claims that the elements within a strict subcategorization framework of the verb must be V'-complements. And he uses the *do so* test to distinguish between the V'-complements and other complements (i.e. V"- or V"-complements). Thus, for example, consider the following:

- (24) a. *John became a doctor, and Mary did so a nurse.
 b. *His costumes made us sick, and his words did so angry.

The V'-complements, Jackendoff argues, cannot occur after the proform *do so*, as shown in the following examples:

- (25) a. Joe bought a book on Tuesday, but Sim did so on Friday.
 b. *Joe put a book on the table, but Sim did so on the chair.

Therefore, the true predicates in (24) should be V'-complements.

Turning now to the sentences containing a QP, consider the following:

- (27) a. John arrived there dead.
 b. John arrived there.
- (28) a. John ate the meat raw.
 b. John ate the meat.

As Jespersen notes, in sentences with a QP, the nexus is wholly or nearly complete without the QP. So, both sentences (27) and (28) are perfectly acceptable, in contrast with (22a) and (22b), which contain the elements generated within the V'-complement, i.e. the true predicates. Thus, we can assume that QP's are not contained in the V'-complement. The *do so* test supports this assumption further. Consider the following:

- (29) a. John walked into the meeting drunk, but Bill did so sober.
 b. John arrived there drunk, but Bill did so sober.
- (30) a. ?*John ate the meat raw, but Bill did so roasted.
 b. ?*John preferred coffee black, but Bill did so with milk.

As in (29), QP₁ can occur after the proform *do so*, thus it is clear that QP₁ is attached outside of V'. However, as shown in (30), the sentences with a QP₂ would be unacceptable, if the QP₂ is left behind the proform *do so*. Apparently, this suggests that QP₁ and QP₂ are different from each other, and QP₂ should be attached inside of the V'. But we assume that this difference between them should be accounted for in terms of the presence of PRO in their internal structures. That is, if we assume that the internal structure of QP is like that of Chomsky (1981)'s small clause, we can account for the ungrammaticality of the sentences in which the QP₂ is preceded by *do so*. The small clauses have the following structure at some level of syntactic representation:

- (31) a. John [_{vP}left the room] [PRO angry].
 b. John [_{vP}left the room] [PRO empty].

(Chomsky 1981: 111)

In (31), each PRO must be interpreted as a coreferent of *John* and *the*

room, respectively. If we change the main predicate into *do so*, the antecedent of the PRO in (31b) cannot be interpreted as a coreferent, since there is no appropriate antecedent in the main clause. Thus, while the QP₁ can occur after *do so*, the QP₂ cannot. Then, the ungrammaticality of the sentence with a QP₂ preceded by *do so* offers no problem to the conclusion that both QP₁ and QP₂ are not in the V', but are attached to the V" or V".

Jackendoff (1977) argues that, while V"-complements can be involved in the main assertion of the sentence, V"-complements cannot. Thus, V"-complements can be focused, questioned, and affected by sentence negation.

Nicholas (1978b) observes that the focus of the sentences containing a QP is normally the QP itself. Thus,

- (32) A: Did he come home *drunk* ?
 B: No, sober.
 C: ?*No, he didn't come home.

The speaker A asks whether the proposition denoted by the italicized element (i.e. QP) is true or not, but not whether "he came home or not". Thus, the QP is questioned, and it constitutes the main assertion of the sentence, while the rest of the sentence is presupposed.

The same is true for the scope of the sentence negation. Consider the following:

- (33) a. John didn't come home drunk, but he came home sober.
 b. ?*John didn't come home drunk, but he went to Chicago.
 (34) a. John didn't eat the meat raw, but he ate it roasted.
 b. ?*John didn't eat the meat raw, but he drank wine.

As the unacceptability of (b)-sentences in (33) and (34) shows, the scope of the negative element *not* falls on the QP (*drunk*, *raw*). Again, it follows that the focus of the sentence with a QP must be the QP itself.

Then, it should be predictable that the sentences with more than one QP would be unacceptable, since there are more than one focus in one sentence. Thus,

- (35) a. John ate the meat nude.
 b. John ate the meat raw.
 c. *John ate the meat raw nude.
 d. *John ate the meat nude raw.
- (36) a. John arrived there happy.
 b. John arrived there drunk.
 c. *John arrived there happy drunk.
 d. *John arrived there drunk happy.

Furthermore, consider the following:

- (37) a. He walked along happily, but he wasn't really happy.
 b. *He walked along happy, but he wasn't really happy.
- (38) a. He drank the tea cold.
 b. *He drank the tea cold, but it wasn't really cold.

Nicholas (1978b) observes that the sentence *He walked along happy* entails that the individual was in fact happy, while the sentence with the manner adverbial *happily* in place of the QP *happy* does not. Thus, (37b) contains a contradiction, whereas (37a) is perfectly acceptable. The same is true for the sentence with a QP_2 , as shown in (38). This difference between manner adverbials and QP's with respect to the entailment can be explained by the fact that the speaker's assertion of the sentences with a QP always falls on the QP itself, since it is impossible for the speaker to negate what he asserts in the preceding sentence.

To sum up, I have so far shown that both QP_1 and QP_2 have the following internal structure,

- (39) [PRO QP]

so that the presence of PRO ensures the existence of a subject-predicate relation between some appropriate item in the matrix clause and the QP, and that the QP should not be attached to V', but to V". Further, I have shown that the focus of the sentence with QP should fall on the QP itself, thus accounting for the ungrammaticality of the sentences in (32C), (33b), (34b), (35c, d), (36c, d), (37b), and (38b).

Next, I will consider constructions which are formally similar to those with a QP.

- (40) a. I can't work *hungry*.
 b. He lived in Paris *as a child*.

While the sentences with a QP, for example, (27a) can be paraphrased as shown in (41a), and not as in (41b), (40a) and (40b) can be paraphrased as in (42a) and (42b), respectively.

- (41) a. John was dead when he arrived there.
 b. ?John arrived there when he was dead.
 (42) a. I can't work because (or when) I am hungry.
 b. He lived in Paris when he was a child.
 (43) a. I am hungry because (or when) I can't work. ≠(40a)
 b. He was a child when he lived in Paris. ≠(40b)

Thus, these elements should be distinguished from the QP's. The main assertion of these sentences can fall either on the main clause or on the italicized element itself, while that of the sentences with a QP falls normally only on the QP itself, as seen above.

- (44) A: Did he live in Paris as a child?
 B: No, he lived there when he was thirty.
 C: No, he didn't live there.

As seen from the paraphrases (42), the italicized elements function as a causal, temporal, or concessive expression with respect to the action or

event denoted by the main clause. Thus, they should be analyzed as the "supplementive clause" (Quirk, et al. 254-58), or subordinate clause. According to Jackendoff (1977), the subordinate clause should normally be generated as a V'' -complement. Therefore, it seems reasonable to say that supplementive clause should also be generated as a V'' -complement, in contrast with the QP's, which are assumed to be generated as a V'' -complement, as seen above.

To understand the differences between QP's and supplementive clauses more carefully, consider the following:

- (45) a. *He arrived there, drunk.
 b. I can't work, hungry.

As seen in (45), QP's cannot be separated by a comma pause, while supplementive clauses can, and separation by a comma pause is preferable for supplementive clauses. (Of course, in (45a), when *drunk* is interpreted as an expression of concession, a comma pause is perfectly acceptable and desirable. In this case, however, it should be analyzed as a supplementive clause.)

Furthermore, QP's and supplementive clauses differ in their preposability.

- (46) a. *Drunk (,) he arrived there.
 b. Hungry, I can't work.

(Nicholas (1978b) notes that the speaker who allows Y-movement allows (46a) as acceptable. But in this case, a comma pause, which is a typical indicator of a supplementive clause, cannot intervene between *drunk* and the rest of the sentence.)

Then, if supplementive clauses are generated under V'' , and true predicates are generated under V' , QP's should be generated under V'' .

Finally, I will be concerned with the cooccurrence relation between QP's and manner adverbials. Consider the following:

- (47) a. John arrived there drunk. (QP)
 b. John arrived there happily. (manner adverbial)
 c. *John arrived there drunk happily.
 d. John arrived there drunk, happily.
 e. John arrived there happily drunk.

As seen from the grammaticality of (47a) and (47b), the clause *John arrived there* can cooccur with either a QP or a manner adverbial. If, however, a QP and a manner adverbial cooccur in the same sentence as in (47c), the sentence becomes ungrammatical. (47d) is grammatical only when the adverb *happily* is interpreted not as a manner adverbial but as a sentential adverbial. And (47e) is grammatical only if *happily* is interpreted as a modifier of the QP *drunk*.

The same can be seen in the sentences with a QP₂.

- (48) a. John ate the meat raw. (QP)
 b. John ate the meat greedily. (manner adverbial)
 c. *John ate the meat raw greedily.
 d. *John ate the meat greedily raw.

Thus, there seems to be a cooccurrence restriction between QP's and manner adverbials. How should we express this restriction? As I have shown above, QP's should be attached to V", and as Jackendoff (1972, 1977) claims, manner adverbials should be generated under V". Jackendoff notes that more than one manner adverbial cannot appear successively in one sentence. And, he proposes a kind of output condition, such as the following:

- (49) ? Y-ADV-ADV-Z (Jackendoff 1977: 102)

Then, if the same rule applies to the sentences (47) and (48), we can automatically account for their ungrammaticality.

In fact, if the manner adverbials in (47) and (48) are placed between

the matrix subject and the VP, the sentences are fully grammatical.²⁾

- (50) a. John happily arrived there drunk.
 b. John greedily ate the meat raw.

Then, in what position should QP's be generated in the V''? Jackendoff (1977)'s V''-complement system is:

- (51) $V'' \longrightarrow (\text{have-en})-(\text{be-ing})-\left[\begin{array}{c} \text{ADV} \\ +\text{TRANS} \end{array} \right]^* \cdot V'-(\text{PP})^*-(S')^3$

In (51), two nodes are available for the manner adverbials, that is, $\left[\begin{array}{c} \text{ADV} \\ +\text{TRANS} \end{array} \right]^*$ and $(\text{PP})^*$. According to Jackendoff, the PP's which express 'manner' should be generated after the head of V'', i.e. V', since the manner PP's cannot occur between AUX and V', as the normal *ly*-adverbs can.

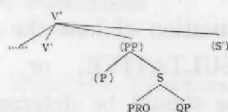
- (52) a. Bill dropped the bananas quickly.
 b. Bill dropped the bananas with a crash.
 c. Bill quickly dropped the bananas.
 d. *Bill with a crash dropped the bananas.

Quite the same is true for the QP's. QP's can appear only after the V'.

- (53) a. *John drunk arrived there.
 b. *John raw ate the meat.

Then it follows that QP's should be generated as a PP in the V''-complement system. And since the internal structure of the QP must contain a PRO, as we have seen above, a QP might be generated as follows:

(54)



3. Summary and Residual Problems

In this paper, I have examined a number of the properties of QP's, syntactically and semantically. Some of the properties show that QP's behave like manner adverbials, and the others show that they are like true predicates. In our analysis, the external environments of the QP's, i.e. that they are dominated by the node V'', as is the case with manner adverbials, accounts for their adverbial nature, and their internal structure i.e. that they are small clauses containing a PRO, accounts for their predicative nature, that is, the fact that there is a subject-predicate relation between the QP and one of the matrix NP's.

However, there remain a number of questions here pertaining to the nature of QP's and the analysis I have proposed. First, what is the base rule for QP's like? In this paper, I have proposed that the QP is dominated by PP which contains a PRO. Then, the grammar should allow the following type of base rules:

- (55) a. $PP \rightarrow P - S$
 b. $S \rightarrow PRO - QP$

(The QP symbol in (55) is a cover term which ranges over NP, AP, or PP.) In Chomsky (1981), S is allowed to expand only as follows:

- (56) $S \rightarrow NP \text{ INFL } VP$

If we assume, following Chomsky, that the PRO is dominated by NP, and that INFL is [-TENSE] when QP occurs, the QP must be permitted to be dominated by VP. But this decision is too problematic. We must leave this question open here, and wait for more careful and broad

investigations.

Secondly, there is a question of how the various semantic relations (e.g. TEMPORAL, RESULTATIVE, or CIRCUMSTANTIAL) of a QP to the matrix clause should be determined. Nakau (1982) notes that verbs which take PATIENT sometimes cooccur with QP's to make explicit the resultative state of the PATIENT caused by the action denoted in the matrix predicate. It seems that the CASE relation between the verb and the NP's might determine the semantic relations of the QP's to the matrix predicates, though this must be studied more carefully.

And if the second question is solved, the third problem of how the coreference relation between PRO in QP's and NP in the matrix clause should be established will solve itself. For example, we might say that the matrix PATIENT NP becomes the antecedent of the PRO.

In this paper, I have shown one possible analysis of QP's, though there are some problems that remain to be solved.

Notes

- 1) (20a) is peculiar in that the Dative Movement cannot apply to this sentence.

- i. *I gave a wipe to it.

If the indirect object *it* is understood as PATIENT, then the subject-predicate relation between *it* and the QP can be easily established, since some QP's denote the resultative state of the PATIENT caused by the action denoted by the matrix predicates. But I will not treat this CASE relation in this paper.

- 2) Further, consider the following:

- i. He married *young* and *unhappily*. (Jespersen MEG 363)

In (i), a QP and a manner adverbial are coordinated. The grammaticality of this sentence suggests that they can be identified with each other in some cases

- 3) The symbol * is used to express that more than one element in question can appear in the appropriate positions.

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