

On the argumenthood of *that*-clauses
which "communication verbs" take*

Shoichi Tanaka

1. Introduction

The argumenthood of an element that a verb takes has been one of the most controversial issues in English grammar. The term "argument" means an element that is subcategorized and assigned a θ -role by the head of the phrase. When an element in a sentence does not have a direct syntactic relationship with the head or verb, it is called "adjunct." In this paper we will examine the argumenthood of the clauses selected by the following four types of verbs.

- (1) a. They agreed that she was misled.
b. They said that she was misled.
c. They whispered that she was misled.
d. They objected that she was misled.

The clause that AGREE type verb (1a) takes does not necessarily express what has been uttered by the subject but reports the content of the agreement. The second type is SAY, a verb of saying, which has the content clause said by the subject. The third type of verb, WHISPER, is a manner-of-speaking verb. The last OBJECT type takes a clause which refers not to the object of the action that the verb means, but to the reason for the objection, which is said by the subject. Thus "to object that ..." means something like "to object saying that"¹ These verb types have in common the following two points: (i) indicative mood is used in their *that*-clauses; (ii) they can occur with direct quotations as well as *that*-clauses,² as (2) shows.

- (2) John agreed/said/whispered/objected, "Mary is honest."

In some intuitive sense, we call these four types of verbs in (1) "verbs of communication." It seems to be the case that verbs like those in (1) denote communicative events in which the subject "gives" some information to someone. Thus we consider all of these verbs as belonging to a single class, but they are not really a homogeneous group in terms of syntactic properties,

as we will see below, and the "communication verbs"³ which we deal with in this paper are not comprehensive. Every type of verb except SAY introduces *that*-clauses optionally.⁴ Dictionaries treat those types of verb differently: one treats them as intransitive verbs, others as transitive verbs. This problem of transitivity is discussed in section 2.5. In this short paper we examine the argumenthood of these *that*-clauses that the four types of verbs in (1) take. In other words, we show whether they are clausal arguments which are labeled Proposition and appear in the argument structures of those verbs.⁵

2. Syntactic properties

2.1. Pro-forms

By substituting certain pro-forms for the relevant *that*-clauses, we can see what properties they have to the verbs. As the following contrast shows, they have different properties.⁶

- (3) a. I agree {that he is honest/*so/*it/on it}.
- b. John said that Bill had done it, and Mary said {so/it/that}, too.
- c. John whispered that Superman won the race, and Mary
 whispered {[?]so/[?]it/that}, too.
- d. We object {that the rule was unfair/*so/*it/to it}.

The fact in (3) seems to show that the *that*-clauses which AGREE and OBJECT type verbs take are adverbial. This corresponds to the acceptability of the following sentences:⁷

- (4) a. I agreed to the effect that he was honest.
- b. *John said to the effect that the rule was unfair.
- c. [?]John whispered to the effect that he was honest.
- d. We objected to the effect that the rule was unfair.

Since *to the effect that ...* is a PP, (4) indicates that AGREE and OBJECT type verbs have the properties of intransitive verbs and that their *that*-clauses have some independence from the verbs. But they do not seem to belong to the same type of verb, as seen in the following *do so* sentences.⁸

- (5) a. [?]They agreed that she was misled, and John did so that she was honest.

- b.* John said that I should leave and Mary did so that I should leave, too.
- c.* John whispered that I was selfish, and Mary did so that I was selfish, too.
- d. John objected that she was misled, and Bill did so that she was dishonest.

The fact in (5) shows that the *that*-clause taken by an OBJECT type verb is more independent than that taken by an AGREE type verb.

2.2. Preposing and Passivization

It is well known that arguments can be distinguished from adjuncts in that only the former can be preposed. Then, if we can prepose *that*-clauses by topicalization or passivization,⁹ we can say that they have one of the properties of object complements governed by the verbs, i.e. arguments, as in the case of *believe*:

- (6) a. That snow is white, everybody believes.
- b. That snow is white was believed by everybody.

As some linguists, Stowell (1981) and Moltman (1989), among others, point out, WHISPER type verbs do not allow the movement of *that*-clauses. ((7c) is from Moltman (1989: 306).)

- (7) a. That Mary was honest, John agreed.
- b. That Mary was honest, John says.
- c. *That it is raining, John sighed.
- d. ?That Mary was honest, John objected.

Similarly, it has been claimed that passivization of WHISPER type verbs is impossible. ((8c) is from Zwicky (1971: 232).)

- (8) a. It is agreed that he is honest.
- b. It is said that Bill is honest.
- c. *It was shouted by Morris that night was falling.¹⁰
- d. ?It was objected that the rule was unfair.¹¹

Although (c) and (d) in (7) and (8) are not very clear to my informant, at

least the marginality of these sentences seems to show that they take *that*-clauses as clausal adjuncts.

2.3. Islandhood of *that*-clauses

Borkin (1984: 84) attributes to George Lakoff the observation that the deletion of *that* weakens the islandhood of object complements. We can claim that this is true only of the complement *that*-clauses because as complements they have some relation with the verbs even without *that*. Then *that* deletion in adjunct clauses would result in ungrammatical sentences, because without complementizers the adjunct clauses would have no element governing them. If this is correct, (9) suggests that the *that*-clauses that WHISPER and OBJECT type verbs take are adjunct clauses and have some independence from the verbs.

- (9) a. They agree she was misled.
- b. They say she was misled.
- c. *They whispered she was misled.¹²
- d. *They object she was misled.

Furthermore, it is well-known that subjects and adjuncts are islands, while complements are not.¹³ Thus we have the acceptable extraction out of complements, as in (10a) and (10b), but the ungrammatical sentences in the case of the extraction from a subject, as in (10c), and from adjunct clauses, as in (10d) and (10e).¹⁴

- (10) a. Who did he engineer [the downfall of ___]?
- b. Who do you think [that she'll marry ___]?
- c. *Who did [the downfall of ___] cause consternation?
- d. *Who did the government collapse [after the downfall of ___]?
- e. *Who did they leave [before speaking to ___]?

Then, if the relevant *that*-clause is a complement governed by the verb, that is, an argument, we can expect that an element can be extracted out of the *that*-clause.¹⁵

- (11) a. What did they agree that he had done?
- b. What did they say that he had done?
- c. ? What did they whisper that he had done?

d. * What did they object that he had done?

Thus we can say that the *that*-clauses that verbs of WHISPER and OBJECT type take do not have the properties of clausal complements but those of clausal adjuncts. Erteschik (1973: 84) indicates that WHISPER type verbs take *that*-clauses which block extraction, although she accounts for this fact in terms of the notion "dominance," a kind of assertive force. She has given the following results about the possibility of WH-extraction from a clause of (12a).

(12) a. What did you V ((to) them) that he had done?

b. *Acceptable*: say, tell, report, announce.

Questionable: grunt, scream, murmur, mumble, mutter, roar, ...

Bad: purr, snarl, editorialize, eulogize, coo, jeer, ...

The list in (12) shows that verbs of saying, SAY type here, have acceptable extractions in (12a), but part of WHISPER type verbs, which are manner-of-speaking verbs, have questionable results, and other WHISPER type verbs result in unacceptable sentences. My informant's judgement "?" in (11c) shows the questionable extraction out of *that*-clauses of WHISPER type verbs.

2.4. Appositives

It seems that *that*-clauses preceded by deverbal nominals, as in (13), are obligatorily interpreted as appositive expressions and they refer to the content of the events expressed by the nominals, as in the case of *belief*:

(13) the belief that he is honest

Then we would have acceptable sentences if *that*-clauses refer to the contents of deverbal nominals and unacceptable ones if they refer to the reason or other things.

(14) a. *They agreed that Mary was misled, but the agreement that she was misled was not true.

b. They said that Mary was misled, but the statement that she was misled was not true.

- c. ? They whispered that Mary was misled, but the whisper that she was misled was not true.
- d. *They objected that Mary was misled, but the objection that she was misled was not true.

This shows that AGREE and OBJECT type *that*-clauses cannot follow their deverbal nominals because they cannot constitute their appositives which refer to the contents of the events expressed by the verbs, that is, they behave like adjuncts or subordinate clauses here.

2.5. Argumenthood and Lexical Processes

As I discussed in Tanaka (in press),¹⁶ lexical processes like prefixation are very intriguing in that they give us a way to judge whether some element is an argument of a phrase. For example, a transitive verb with *re-* can take one NP complement only if it is a direct argument of the underlying verb,¹⁷ but cannot take two complements or a clausal argument, even if the underlying verb can take them, as in the following:

- (15) a. *John reput the dog in the kennel.
- b. *We remade her beautiful.
- c. *We regave him money.
- d. *Bob reconsiders Al a genius.
- e. *Evelyn re-wiped the dishes dry.
- f. *John rethinks that Mary is honest.

As a first approximation, we assume the Case Complement Restriction (CCR) by Carlson and Roeper (1980) which is imposed on the subcategorization requirements of the verb that a prefix attaches to. They describe this restriction as follows:

- (16) "We are led therefore to the following conclusion about complex verbs: their complements *must* be specified in terms of case. ... Since only NP's are assigned case, the possibility of all other types of constituents is automatically ruled out." (p. 139)

It follows from (16) that transitive *re*-verbs can have only one complement, necessarily an argument NP. If this is correct, *re*-prefixation can be a test to examine the argumenthood of an element in object position. Thus we

can give to the fact in (15) an explanation that they are ill-formed because they take other arguments than one NP.

While most *re*-verbs cannot take *that*-clauses, as in (15f) and (17), however, Randall (1982: 52) observes that those in (18) can take them.

- (17) a. *James rethought that papayas grow on trees.
- b. *Fenimore reboasted that his grandfather was a Nobel laureate.
- c. *Andrew reswore that he had seen a ghost.

- (18) a. The teacher reconcluded that John's paper was plagiarized.
- b. Hermione redecided that she would go ahead with her campaign.
- c. Felix reinsisted that he be allowed to pay.
- d. Julia reremarked that she had been to the moon.
- e. Delia redeclared that her theory was the correct one.
- f. Grace reconjectured that David was responsible.
- g. Mary retestified that Fred had been with her.

Not only are the sentences in (18) counterexamples to the CCR, but also Randall admits that they are problematical for the restriction proposed that "S-complements which cannot be analyzed as NPs ought not to be able to appear."¹⁸ To know why they are acceptable, we have to see the possibility of *re*-prefixation to the verbs under consideration.

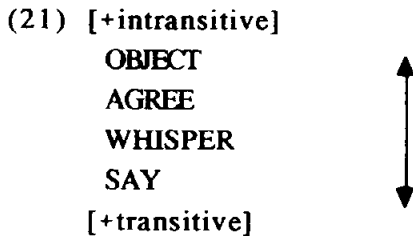
- (19) a. [?] They agreed that she was misled, and later re-agreed that she was honest.
- b. *They said that she was bright, and later re-said that she was bright.
- c. ^{??} They whispered that she was bright, and later re-whispered that she was bright.
- d. John objected that she was too young, and later re-objected that she was dishonest.

The judgement of my informant is very clear in that *re-agree* is less acceptable than *re-object*, and *re-say* is less acceptable than *re-whisper*. What does this judgement show concerning *re*-prefixation and the argumenthood of *that*-clauses? We assume that at least *re-object* has such a property as the following intransitive *re*-verbs have.

- (20) a. The rabbit reappeared.
 b. The door reopened.

That is, *object* is an intransitive verb and its *that*-clause does not have the property as object but rather as adjunct.¹⁹

Thus, taking all the relevant considerations as in (3), (4), (5), and note 4 together, we might be able to conclude that communication verbs have varying degrees of transitivity as follows.



Although transitivity and argumenthood are closely related to each other, however, it does not necessarily mean that this diagram (21) shows the argumenthood of *that*-clauses that communication verbs under consideration take, for an intransitive verb can take an object-like element in cognate object constructions (*He died a miserable death*) or resultative constructions (*The joggers ran the pavement thin*). We have been assuming that while transitivity depends on whether a verb takes an object, argumenthood stands on whether the semantic role of an element is listed in the argument structure of its head. Therefore we would like to argue that it may happen that an intransitive verb takes an argument in the object position, but it seems unlikely that a transitive verb takes an adjunct in the absence of an object.²⁰ The fact that sentential complements do not need Case accounts for their appearance in the positions following intransitive verbs.

3. Argumenthood of *That*-clauses

We are now in a position to reexamine the syntactic properties that we have seen above to determine the possibility of argument of a *that*-clause, but to do this, we have to review those relevant properties. If we represent the property to indicate the likelihood of an argument by using the positive sign "+" and the opposite property by using the negative sign "-", we get the following table:

(22)

	pro-form (3)	<i>to the effect that</i> (4)	<i>do so</i> (5)	topicaliza- tion (7)	passive (8)	(<i>that</i>) (9)	extrac- tion (11)	nominal (14)	<i>re-V</i> (19)
agree	-	-	+?	+	+	+	+	-	-?
say	+	+	+	+	+	+	+	+	+
whisper	-?	+?	+	-?	-?	-	-?	-?	+?
object	-	-	-	-?	-?	-	-	-	-

(The sign "?" indicates that the judgement is not very clear.)

There is no doubt that *say* is a transitive verb and takes a *that*-clause as argument because it has "+" in all the items. However, it is not easy to determine the argumenthood of the *that*-clauses which the other three verbs take. As we have seen in (21), the properties to indicate transitivity do not necessarily agree with those to show argumenthood. Thus, we have to decide which properties we should depend on to determine the argumenthood of the *that*-clauses under discussion. We would like to argue that the results of the tests in (3), (4), (5), (7), (8), (14), and (19) follow from transitivity rather than argumenthood, because they handle a *that*-clause as a unit in that they substitute or move the whole *that*-clause, or change the matrix verb forms with *that*-clauses intact. In contrast, we can say that the tests in (9) and (11) treat the internal properties of *that*-clauses, because they delete or extract an element inside *that*-clauses. Therefore it seems to be reasonable to assume that the facts in (9) and (11) are the most reliable data. If we determine on the basis of these data, we can conclude that *agree* and *say* take *that*-clauses as arguments, while *whisper* and *object* take those as adjuncts.

4. Summary

We have proposed that there are at least four types of communication verbs and observed that there is a difference in the argumenthood of the *that*-clauses that they take. It is very clear that SAY type verbs are transitive verbs which take *that*-clauses as arguments. On the other hand, OBJECT type verbs are intransitive verbs which take *that*-clauses as adjuncts. Also AGREE type verbs can be regarded as intransitive verbs, but they take *that*-clauses as arguments. More problematic is the argumenthood of

that-clauses that WHISPER type of verbs take, whose syntactic properties cannot be depicted definitely, as we have seen in the table (22). This seems to show that they have some derivative properties, as discussed in Watanabe (1989). We will be able to consider these syntactic consequences to be derived from Case theory and θ theory or some semantic constraint.²¹

NOTES

*This paper is a revised version of the paper read at the 43rd Kyushu Meeting of the English Literary Society of Japan held at Saga Women's Junior College, October 28th, 1990. I'm very grateful to Toshiaki Inada, Kazuo Yamasaki, Tatsuhiko Toda, Hiroshi Ohashi, and Toshiaki Nishihara for helpful and useful comments at the meeting. I thank Zonia L. Mitchell for patiently giving judgement on the delicate data. I also thank Nobuhiro Kaga, Shinsuke Homma, Hideaki Hoshi, and Mika Okuyama for their invaluable comments and suggestions on an earlier version of this paper, which improve this paper. Any remaining inadequacies are entirely my own.

¹See Nakau (1983) for the semantic ambiguity of *that*-clauses that *object* takes.

²Certain communication verbs disallow one of the two. For example, *go* can occur with direct quotation but cannot take a *that*-clause.

(i) a. And then Mary went/goes, "Well, you'll have to come with us."

b.* And then Mary went that we'd have to come too.

These are from Munro (1982: 306).

The same applies to a number of manner-of-speaking verbs. That is, there are some manner-of-speaking verbs which do not introduce *that*-clauses.

(ii) a. He chuckled, "I'll go there."

b.?³*He chuckled that he would go there.

³The following is a list of "communication verbs" which I think take the same kind of *that*-clauses as we discuss in this paper, but we need further research to make the list more accurate.

(i) AGREE type: agree, decide, deny, insist, ...

SAY type: say, announce, report, tell, ...

WHISPER type: whisper, grunt, murmur, scream, shout, ...

OBJECT type: object, complain, rejoice, ...

Also all types of verbs are assertive predicates since they can be used in

parentheticals, as (ii) shows:

- (ii) a. Mary was honest, John agreed.
- b. Mary was honest, John said.
- c. Mary was honest, John whispered.
- d. Mary was honest, John objected.

But see Hirose (1986) for the determination of the assertiveness of predicates.

⁴This is shown by the following sentences:

- (i) a. They agree.
- b. *They say.
- c. They whispered.
- d. They object.

⁵In this paper I consider argument structure to be virtually the same as θ -grid, which is the term used by Stowell (1981), among others, although I do not discuss which is the most appropriate representation of the argument-taking properties of verbs.

⁶Sentences (3a) and (3d) are from Yagi (1987) and (3b) and (3c) from Watanabe (1989). My informant's judgement is different only in WHISPER type. Compare (i) with (3c).

- (i) John whispered that Superman won the race, and Mary whispered {so/it/that}, too.

⁷See Kayne (1981: 108, n. 23).

⁸The following *do so* sentences are all acceptable.

- (i) a. They agreed that she was misled, and John did so, too.
- b. John said that I should leave and Mary did so, too.
- c. John whispered that I was selfish, and Mary did so, too.
- d. John objected that she was misled, and Bill did so, too.

⁹My informant, however, does not have a significant difference of acceptability with regard to topicalization or passivization.

¹⁰Zwicky (1971:232) indicates that a WHISPER type verb can be passivized when it is not understood communicatively. Consider the following contrast.

- (i) a. "Glop" was {screamed/hooted/bellowed} (at them) by the dean.
- b. *"Glop" was {mumbled/shrieked/growled} to us by an onlooker.

See Stowell (1981: 399).

¹¹Passivization seems to be more acceptable when an OBJECT type verb occurs with a modal auxiliary verb.

- (i) a. It might be objected here that our claim to have avoided

the use of grammatical relations is rather empty now, ...
(Williams (1981: 89))

- b. It could be objected that we cannot attribute the above differences to the complementizers alone, ... (Bresnan (1972: 75))

As Yagi (1987) argues, these *that*-clauses seem to express the reason for objecting.

¹²Bolinger (1972: 33) says that (i) is well-formed.

- (i) She screamed she had to have both.

But he also indicates that the following sentences are not acceptable (ibid. p. 18).

- (ii) a. *She gushed she simply loved it.
b. *He sniggered it was easy.
c. *He chortled it was only a joke.

And (iii) is from Radford (1988: 333).

- (iii) Mike grunted *(that) he was tired.

Stowell (1981: 398) explains this fact in terms of the ECP.

¹³See Radford (1988: 487).

¹⁴Sentences (9a-d) are from Radford (1988) and (9e) is from Chomsky (1986).

¹⁵Other examples of WHISPER and OBJECT type are (ia) and (ib) respectively.

- (i) a. ?What did she scream she had to have? (Bolinger (1972: 33))
b. *What did they complain that he had done?

¹⁶See Tanaka (in press).

¹⁷However, it is well-known that unlike syntactic rules, lexical rules have exceptions, as Wasow (1977) claims. As such, rules like *re*-prefixation have a difference of acceptability among native speakers. See Tanaka (in press) for further details.

¹⁸See Randall (1982: 52) for details.

¹⁹Probably we have to handle the following *that*-clauses in the same way, since a particle or a preposition cannot take a *that*-clause.

- (i) a. She cried out that she was innocent.
b. He wrote down that he missed her.
c. She owned up that she hadn't taken the pill.
d. He mumbled on that she'd let him down.

These are from Radford (1988: 397).

²⁰I am very grateful to Nobuhiro Kaga for pointing out to me the possibility of the case in which a transitive verb takes an adjunct clause and for reminding me that I should discuss and make clear the difference between transitivity and argumenthood.

²¹I owe this remark to Shinsuke Homma, but at this point I have not gathered the syntactic arguments yet to substantiate the possibility of explaining the consequences in terms of subtheories in the GB framework.

Also I have not done more than touch very slightly upon the semantic properties of *that*-clauses, say, factivity and assertiveness, since our interest was in their syntactic properties. (See note 3.) However, I think that we must take them into consideration to get a clearer picture of complementation in English. They include such semantic arguments as made in Nakau (1983) and Hirose (1986). In particular, Nakau's "anaphoricity" seems to give us an insight into examining the semantic properties of complement clauses.

REFERENCES

- Bolinger, D. 1972. *That's That*. The Hague: Mouton.
- Borkin, A. 1984. *Problems in Form and Function*. Norwood: Ablex.
- Bresnan, J. 1972. *Theory of Complementation in English*. Ph. D. dissertation, MIT.
- Carlson, G. and T. Roeper. 1980. "Morphology and subcategorization: Case and the unmarked complex verb," in T. Hoekstra, H. van der Hulst, and M. Moortgat (eds.) *Lexical Grammar*. Dordrecht: Foris. 123-64.
- Chomsky, N. 1986. *Knowledge of Language; Its Nature, Origin, and Use*. New York: Praeger.
- Erteschik, N. 1973. *On the Nature of Island Constraints*. Ph.D. dissertation, MIT.
- Hirose, Y. 1986. "Hatsuwa dooshi hobun to hanashite no shukan teki shingi handan," *The Rising Generation*, 132, 314-8.
- Hooper, J. B. 1975. "On assertive predicates," in J. E. Kimball (ed.) *Syntax and Semantics* 4. New York: Academic Press. 91-124.
- Inada, T. 1989. *Hobun no Koozoo*. Tokyo: Taishukan.
- Jackendoff, R. 1987. "The status of thematic relations in linguistic theory," *Linguistic Inquiry* 18, 369-411.
- Kayne, R. 1981. "ECP extensions," *Linguistic Inquiry* 12, 93-133.
- Kegl, J. and C. Fellbaum. 1988. "Non-canonical argument identification,"

- Proceedings of the 7th West Coast Conference on Formal Linguistics*, 187-202.
- Keyser, S. J. and T. Roeper.1989."Re: The abstract clitic hypothesis," ms., Cambridge, Mass.: MIT.
- Levin, B. and T. R. Rapoport.1988."Lexical subordination," *CLS* 24, 275-289.
- Moltman, F.1989."Nominal and clausal event predicates," *CLS* 25, 300-314.
- Munro, P.1982."On the transitivity of 'say' verbs," in P. J. Hopper and S. A. Thompson (eds.) *Syntax and Semantics 15; Studies in Transitivity*. New York: Academic Press.301-18.
- Nakau, M.1983."Bun no koozoo to kinoo," in A. Ota (ed.) *Outline of English Linguistics vol. 5: Linguistic Semantics*. Tokyo: Taishukan. 548-626.
- Radford, A.1988. *Transformational Grammar*. Cambridge: Cambridge University Press.
- Randall, J.1982. *Morphological Structure and Language Acquisition*. Ph.D. dissertation, MIT.
- Stowell, T. 1981. *Origins of Phrase Structure*. Ph.D. dissertation, MIT.
- Tanaka, S. (in press) "Argumenthood and lexical processes," *Journal of the Faculty of Education Saga University* 39, No. 1 (I), 51-62.
- Wasow, T.1977. "Transformations and the lexicon," in P. W. Culicover, T. Wasow, and A. Akmajian (eds.) *Formal Syntax*. New York: Academic Press. 327-60.
- Watanabe,Y.1989."Bunpo sosei no kakuchō (1), (2)" *The English Teachers' Magazine*, May,73-5, June, 65-7.
- Williams, E.1981."Argument structure and morphology," *The Linguistic Review* 1, 81-114.
- Yagi,T.1987."I object that ...," *The Rising Generation*. 133, 9, p.424.
- Yagi,T.1990."Zenchishi to setsu," *The Rising Generation*. 134, 4, p.177.
- Zwicky, A. 1971. "In a manner of speaking," *Linguistic Inquiry* 2, 223-33.