

The Semantics of Relative Clauses Containing *There*-Constructions

Daichi Watanabe, Masaki Yasuhara, Shiro Takeuchi, and Shun Kudo

Traditionally, English relative clauses have been classified into two types: restrictive relative clauses (hereafter, RRs) and non-restrictive relative clauses. Carlson (1977) argues that another type of relative clauses, amount relative clauses (hereafter, ARs), may be distinguished from RRs. An RR and an AR occur in sentences (1) and (2), respectively:

- (1) I don't like the house that he lives in.
 (2) Marv put everything he could in his pocket. (Carlson (1977:527))

Semantically, an RR and an AR are crucially different. Whereas the RR identifies the individual of the referent of its antecedent, the AR identifies the amount of the referent of its antecedent.

In addition to this, ARs have a syntactic restriction to definite/universal determiners on the antecedents, whereas RRs do not. On the basis of this syntactic characteristic, Carlson (1977:525) classifies as ARs relative clauses containing a *there*-construction (hereafter, RTs), as exemplified below:

- (3) The people there were at that time only lived a few decades.

Syntactically, the RTs and the ARs share the restriction to definite/universal determiners on the antecedents. Semantically, however, the RTs identify the individual of the referent of the antecedents, whereas the ARs identify the amount of the referent of the antecedents. In spite of this crucial difference in the interpretation between RTs and ARs, it has been argued that RTs should be classified as a subtype of ARs (Carlson (1977) and Grosu and Landman (1998)). Grosu and Landman (1998) provide an ad hoc explanation for this difference of interpretation between RTs and ARs.

In this study, we argue that RTs are a subtype of RRs. Specifically we propose that the restriction to definite/universal determiners on the antecedents of RTs comes from the general property of antecedents of relative clauses and that of *there*-constructions. As an immediate consequence of this, the semantic characteristic of RTs (i.e. identification of the individual of the referents of their antecedents) can be attributed to the general property of RRs.

Let us begin by reviewing Carlson (1977) and Grosu and Landman (1998), which classify RTs as ARs. Carlson's (1977) classification is mainly based on a

syntactic property shared by RTs and ARs, as shown below:

- (3) a. Marv put everything he could in his pocket.
 b. * Marv put {some/each/many/four} thing(s) he could in his pocket.
- (4) a. The people there were at that time only lived a few decades.
 b. Every lion there is eats meat.
 c. * {Five/Several/Many} men there were here disagreed.
 d. * {Some/ Each/A} man there was disagreed.

As is clear from these, both the ARs in (3) and the RTs in (4) license only definite/universal determiners on the antecedents.

What is overlooked in Carlson (1977), however, is the fact that RTs are semantically similar to RRs. For example, sentence (5) is unacceptable in the interpretation where there were five books on the table and the subject referent read other five books.

- (5) I read all the books there were on the table. (McNally (2006:2))

In this respect, the RTs are semantically different from the ARs.

To explain the commonality and difference between RTs and ARs, Grosu and Landman (1998) introduce a maximalization operator, MAX. According to them, this operator allows RTs and ARs to identify the amount of their antecedents. In addition to this, to account for the difference between RTs and ARs, they propose another operator, SUBSTANCE. They argue that this operator enables RTs to identify the individual of their antecedents.

At first sight, Grosu and Landman's analysis appears to account for the semantic characteristic of RTs. Their explanation, however, requires these two ad hoc operators, which lack any empirical motivation.

So far, we have observed that Carlson (1977) and Grosu and Landman (1998), which argue that RTs are a subtype of ARs, do not give a successful account for the semantic characteristic of RTs. In this study, we assume that RTs come under RRs, which resolves the problem of semantic characteristic of RTs. Then, we have to account for the syntactic characteristic of RTs. In the following discussion, we will show that the syntactic characteristic of RTs naturally follows from the general property of antecedents of relative clauses and that of *there*-constructions.

First, we reveal the property of antecedents of relative clauses. To begin with, let us observe the characteristic of antecedents of RTs. Carlson (1977) gives a list of determiners of the antecedents that can or cannot co-occur with RTs, which

are exemplified in (6a) and (6b), respectively.

- (6) a. *the, every, any, all*
 b. *(a) few, lots of, many, some, several*

RTs license only definite/universal determiners on the antecedents. These definite/universal determiners show a definiteness effect (cf. Milsark (1974, 1977)). Definite/universal determiners may not occur in the complement position of *there*-constructions.

- (7) * There is the man in the laundromat. (Carlson (1977: 522))
 (8) * There are all the books on the table.
 (9) There were many students in the bedroom.

Next, let us observe how definiteness of the antecedents of relative clauses affects an interpretation of the sentence as a whole.

- (10) a. I've read the eight novels (that) Grisham has written.
 b. I've read eight novels (that) Grisham has written. (Myoga (2001: 177))

Sentence (10a), which includes the definite head noun of the relative, indicates that the number of novels that Grisham has written is only eight. On the other hand, sentence (10b), which includes no article on the antecedent, implies that the number of the novels that Grisham has written is more than eight. From this observation, the following general property of antecedents of relative clauses follows:

- (11) a. The number/amount of (a) referent(s) of (an) antecedent(s) with a definite article is identical to that of (an) individual(s) that participate(s) in the event that the relative clause describes.
 b. The number/amount of (a) referent(s) of (an) antecedent(s) with an indefinite article is not identical to that of (an) individual(s) that participate(s) in the event that the relative clause describes.

The next thing we must consider is the general property of *there*-constructions. To begin with, let us observe a sentence including no *there*-constructions, as in (12):

- (12) Three books on the table were blue.

(cf. Grosu and Landman (1998:145))

The sentence in (12) may be uttered even if there are more than three books on the table. *There*-constructions, on the other hand, do not evoke this kind of interpretation, as shown below:

- (13) There were five books on the table.
 # Then, I took with me six books that were on the table.

In (13), the first sentence indicates that the number of books on the table is exactly five, and therefore the second sentence is incompatible with the first sentence. So the following general property of *there*-constructions emerges:

- (14) The number/amount of the referent of a complement occurring in a *there*-construction is equal to that evoked by the complement.

With the general properties stated in (11) and (14) in hand, we can now give an account for the restriction on the determiners of RTs.

- (15) a. I took with me {every book/any books/the books/three of the books} that there {was/were} on the table.
 b. # I took with me {three books/few books/many books/some books} that there were on the table.

(Grosu and Landman (1998: 136))

In (15), as shown in (14), the number of the referent of the complement occurring in a *there*-construction is equal to that evoked by the antecedent. In (15a), which includes the definite articles, the number of the referent of the antecedent is identical to that of individuals that participate in the event that the relative clause describes. Thus (15a) is acceptable. On the other hand, in (15b), which includes an indefinite article, the number of the referent of the antecedent is not identical to that of individuals that participate in the event that the relative clause describes. Therefore, the sentence in (15b) is unacceptable.

To sum up, this study has argued that RTs fall under RRs. We have shown that the syntactic characteristic of RTs naturally follows from the general property of head nouns of relative clauses and that of *there*-constructions. This study allows us to attribute the semantic characteristic of RTs (i.e. identification of the individual of the referents of their antecedents) to the general property that RRs have.