

## ABSTRACT OF THE THESIS

**Title:** Semantic Nature of Verbs and Kinds of Relative Clauses  
**Advisor:** Takao Gunji  
**Author:** Midori Shibutani  
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The primary goal of this dissertation is to give a theoretical explanation to the so-called Change Relatives (CRs) by contrasting with Head-Internal Relative Clauses (HIRCs), which are assumed to have similar constructions to CRs. We make an analysis of semantic structures of verbs occurred in these two relative clauses and clarify the difference that exists between the two relative clauses.

Tonosaki (1998) argues that the post-relative *no* is a pronominal in a CR and that an inner argument of the verb within a CR undergoes a property change semantically. For instance, in (1a), the verb *wakasu*, ‘boil’ in the relative clause affects its direct object ‘mineral water,’ and the direct object gets a new meaning, which is ‘hot water.’ This unexpressed argument ‘hot water’ behaves as an argument of the verb in the matrix clause. The post-relative *no* is a pronominal which refers to the argument with this newly acquired meaning. The *no* also can be replaced with a light noun such as *yatsu*, ‘thing.’ On the other hand, in (1b), the verb *kau*, ‘buy’ does not affect its direct object, natural water and its meaning does not change. The argument of the verb in the matrix clause is the same as natural water in the relative clause. The post-relative *no* cannot be replaced with a light noun such as *yatsu*, ‘thing.’

(1) a. CR

Kate-wa [[tennensui-o wakashi-ta] {no / yatsu}]-o non-da.  
Kate-TOP natural.water-ACC boil-PAST {no / thing}-ACC drink-PAST  
‘Kate drank the natural water which had been boiled.’

b. HIRC

Kate-wa [tennensui-o kat-ta {no / \*yatsu}]-o non-da.  
Kate-TOP natural.water-ACC buy-PAST No / thing)-ACC drink-PAST  
‘Kate drank the natural water which she had bought.’

Based on the observation of (1a) and (1b), the differences between the two relative clauses can be summarized into the following two characteristics.

- (2) a. The post-relative *no* can be pronominal when the object noun phrase within the relative clause gets a new sense of meaning with some kind of factors. (CR)
- b. The post-relative *no* can be a complementizer when the object noun phrase within the relative clause hold the same meaning as that of the relative clause with the *no*. (HIRC)

In other words, there is a syntactic as well as semantic difference between a CR and an HIRC. The status of the post-relative *no* seems to be closely related with a referent which the relative clause ended with the particle *no* indicates. Furthermore, each relative clause closely ties with a type of verb that occurs in the relative clause.

In these respects, we hypothesize that a change of state (COS) verb appears in a CR based on the previous studies done by Tonosaki (1998) and others in Chapter 3. An HIRC is assumed to have a type of verb that has a direct object with a theme role, which is based on the idea of Nishigauchi (2004) and other various data from the previous studies on HIRCs by Kuroda (1992), Hoshi (1995), Shimoyama (1999), Mihara and Hiraiwa (2006) and others .

In Chapter 4, we closely examine COS verbs in more broader sense and provide the meanings of the verbs with Lexical Conceptual Structure (LCS) (Jackendoff, 1990) along with the modified version of the qualia structure (Pustejovsky, 1995; Kageyama, 2005; Hidaka, 2011) as in (3). Following Hidaka (2011), this modified version separates its qualia into two semantic levels: Truth-conditional Section (TS) and Non-truth-conditional Section (NTS). It can represent more detailed information about the lexical meanings of the verbs. We will show that some of COS verbs can contain information at NTS.

$$(3) \left[ \begin{array}{l} \text{ARG} = [\text{Argument structure}] \\ \\ \text{QUALIA} = \left[ \begin{array}{l} \text{Truth-conditional Section (TS)} \\ \text{FORMAL: the eventuality of a verb} \\ \text{CONST: LCS of a verb} \\ \text{Non-truth conditional Section (NTS)} \\ \text{TELIC: the resultative state which a verb entails} \\ \text{AGENT: the external factors which a verb brings in} \end{array} \right] \end{array} \right]$$

In Chapter 5, we will clarify the difference in the status of the post-relative *no* of CRs and HIRCs through the examination of semantic structures of COS verbs as well as the type of verb that occurs in HIRCs. We further specify that a CR prefers to have a verb which contain the semantic predicate BECOME, and we attempt to explain the mechanism of a CR.

For example, a *horu*-type of verb occurred in the relative clause shifts its meaning from a sense of transformation to a sense of creation depended on a type of its inner argument. The change in meaning of a verb is also closely related with the interpretation of the relative clause. When a *horu*-type of verb with a transformation sense occurs in a relative clause, such a relative clause is treated as a CR meanwhile it is treated as an HIRC when a creation sense of *horu*-type occurs.

(4) a. CR:

Ken-wa [[ki-o hot-ta] {no / mono}]-o kannso-sase-ta.  
 Ken-TOP wood-ACC carve-PAST no / thing-ACC dry-make-PAST  
 ‘Ken dried the thing that he carved.’

b. HIRC:

Ken-wa [butsuzoo-o hot-ta {no / \*mono}]\_o kannso-sase-ta.  
 Ken-TOP Buddha.statue-ACC carve-PAST {No / thing}-ACC dry-make-PAST  
 ‘Ken carved the statue of Buddha and dried it.’

The verb phrase *ki-o horu*, ‘(to) carve the wood’ in (4a) is represented as follows. The predicate BECOME, which corresponds to a sense of change, is contained non-truth conditionally. The element *z*, which denotes some kind of resulting object by carving the wood, is the *resultant* of BECOME. The verb contains it in its lexicon but it is not explicitly represented syntactically. (See Chapter 4 for further details)

$$(5) \left[ \begin{array}{l} \text{Ken-wa ki-o horu}_t \text{ (Ken carves the wood)} \\ \\ \text{QUALIA} = \left[ \begin{array}{l} \text{TS} = [\text{CONST: ACT-ON} ([\text{Ken}], [\text{ki}])] \\ \text{NTS} = [\text{TELIC: } \exists z \text{ BECOME (BE-AT} ([\text{Ken}], z))] \end{array} \right] \end{array} \right]$$

On the other hand, the verb phrase *butsuzoo-o horu*, ‘(to) carve a statue of Buddha’ in (4b) is represented as follows. The predicate BECOME as well as CAUSE, which connects a causing event with a result event, are contained truth conditionally. In this case, some material for carving, the element *y* is degenerated to a default argument and is not realized syntactically. This argument is an inner argument of the verb *horu* of *ki-o horu* and is realized syntactically in (5). (See also Chapter 4)

$$(6) \left[ \begin{array}{l} \text{Ken-wa butsuzoo-o horu (Ken carves the statue of Buddha)} \\ \\ \text{ARG} = [\text{D-ARG: } y] \\ \\ \text{QUALIA} = \left[ \text{TS} = [\text{CONST: CAUSE} ([\text{ACT-ON} ([\text{Ken}], y)], [\text{BECOME} [\text{BE-AT} (y, [\text{butsuzoo}])]])] \right] \end{array} \right]$$

Considering a *horu*-type of verb, a relative clause ended with the *no* is primarily treated as a CR when a sentence like (5) occurs whereas the relative clause is treated as an HIRC when a sentence like (6) occurs. In other words, the post-relative *no* functions as a pronominal when a verb with BECOME which has a resultant, appears in the relative clause. The post-relative *no* establishes an anaphoric relation with the resultant of BECOME of the embedded verb. Under a CR construction, the critical factor is a resultant of BECOME in a lexical meaning of a verb whether or not it is encoded truth conditionally. This can be the mechanism of a CR. On the other hand, under an HIRC construction, a verb has a sense of creation even

though it specifies the value of the resultant of BECOME. In this case, the verb represents an existence of the entity or event that the direct object denotes. An HIRC does not concern about an element of semantic structure, but it puts more weight on the syntactic realization of a direct object of the embedded verb. This contributes to the interpretation of an HIRC.

We believe that we can provide a theoretical explanation to the mechanism of a CR based on the ideas of Generative Lexicon and its related theoretical device as we focus on the facts that COS verbs often occur in CRs and the observation that the interpretation of a CR and an HIRC differs according to a type of verb that occurs in the relative clause. Our findings can be a contribution for a solution to the mechanism of HIRCs in the future research.

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