

## Licensing Gapless Relative Clauses in Japanese

In this presentation, I aim to show that Japanese resultative gapless relative clauses (RGRCs) must satisfy a licensing condition related to thematic roles and to provide a new analysis of an RGRC in Japanese. The RGRC is a clause whose relative head denotes the results or products of the events denoted by the relative clause, as in (1). The relative clause has no gap which corresponds to the relative head.

The existence of the RGRC in Japanese is widely acknowledged and many studies within the framework of traditional Japanese philology and generative grammar have been made. However, Nishiyama 2016 is the first to point out that there are unacceptable examples of RGRCs in Japanese despite the fact that the resultative relation holds between the relative clause and its relative head. Look at the contrast between (1) and (2). Nishiyama himself does not provide any explanation for this. Assuming Dowty's 1991 definition of thematic roles, I propose a descriptive generalization (3). To explain this descriptive generalization, I propose a new semantic operation named Resultative Shift (4). The RGRCs in Japanese receive a natural account if Resultative Shift applies to the relative head, and then the denotation of the relative head and that of its relative clause combine by Event Identification, as illustrated in (5). Assuming with Takeda 1999 that a free type-shift operation can apply to the Japanese nominal expressions, this created juice-property may or may not freely be converted into an entity at a later stage of the computation and thus it can be combined with a predicate such as *nonda* 'drank'.

For the proposed analysis to merit consideration, it will be better if we can extend it to linguistic phenomena other than the RGRC. For example, I will suggest that one type of head-internal relative clause (change-of-state head-internal relative clause, change-HIRC) like (6) can be best analyzed in much the same way as the RGRC is analyzed.

- (1) [ Taro-ga gureepufuruutu-o sibot-ta] juusu  
Taro-Nom grapefruit-Acc squeeze-past juice  
'the juice resulting from Taro's squeezing grapefruits'
- (2) ? Taro-ga [[e]<sub>i</sub>] tamanegi-o kit-ta] namida-o hankachi-de hui-ta.  
Taro-Nom onion-Acc slice-Past tear-Acc handkerchief-with wipe-Past  
intended: 'Taro wiped tears resulting from his slicing onions.'
- (3) Generalization  
The referent of the Theme nominal in an RGRC functions as the source of the referent of the relative head.
- (4) Resultative Shift  
 $\lambda x.P(x). \Rightarrow \lambda x.\lambda e.\exists y.[\text{event}(e) \ \& \ \text{Theme}'(e,y) \ \& \ \text{Result-from}(P(x),e) \ \& \ \text{Source-of-x}(y)(e)]$   
(Here P is a one-place property of type  $\langle e,t \rangle$ . Result-from(P(x),e) means that P(x) results from event e. Source-of-x (y)(e) means that within an event e, a thing or place from which you get x is y. The variable y is also a Theme nominal of an event e as illustrated by Theme'(e,y). Since y may be an Agent of another event e', the specification of e in Source-of-x (y)(e) is necessary.)
- (5) 1. [[Taro-ga gureepufuruutu-o sibot-ta]] =  
 $\lambda e.\exists x.[\text{event}(e) \ \& \ \text{squeeze}'(e) \ \& \ \text{grapefruit}'(x) \ \& \ \text{Agent}'(e, \text{taro}) \ \& \ \text{Theme}'(e, x)]$   
2. [[juusu]] =  $\lambda y.\text{juice}'(y)$   
3. [[juusu]] =  $\lambda y.\lambda e.\exists x.[\text{event}(e) \ \& \ \text{Theme}'(e,x) \ \& \ \text{Result-from}(\text{juice}'(y),e) \ \& \ \text{Source-of-y}(x)(e)]$   
(by Resultative Shift)  
4. [[Taro-ga gureepufuruutu-o sibot-ta juusu]] =  
 $\lambda y.\lambda e.[\exists x.[\text{event}(e) \ \& \ \text{squeeze}'(e) \ \& \ \text{grapefruit}'(x) \ \& \ \text{Agent}'(e, \text{taro}) \ \& \ \text{Theme}'(e, x)] \ \& \ \exists x.[\text{event}(e) \ \& \ \text{Theme}'(e,x) \ \& \ \text{Result-from}(\text{juice}'(y), e) \ \& \ \text{Source-of-y}(x)(e)]]$   
(by Event Identification)  
'the set of y such that y is juice whose source is x within e and which results from the set of events e in which Taro squeezed grapefruits'
- (6) Taro-wa [ Hanako-ga orenji-o sibot-ta]-no-o 500ml non-da.  
Taro-Top Hanako-Nom orange-Acc squeeze-Past-No-Acc 500ml drink-Past  
'Taro drank the product which results from Hanako squeezing oranges.'

**Selected References:** [1]Nishiyama, Yuji. 2016. Imiron Goyooron-no Nanmon [Difficult Problems of Semantics and Pragmatics]. Nihongo-gaku [Japanese Linguistics] 35(5). 26-37.