Japanese Verbs of Tying and Binding: Alternations and Coercion

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In this paper, I will show, on the basis of Japanese verbs of tying and binding, that argument alternations are implemented by the verb's possessing more than one lexical meaning, but can sometimes be trigged by coercion (Pustejovsky 1995). Japanese verbs of tying and binding can have an alternation between theme-object and material-object variants, which look like a locative alternation (Levin 1993).

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(1) a. John-wa sinbun-ni himo-o {musun-da/sibat-ta}.
John-Top newspaper-to string-Acc {tie-Past/bind-Past}
'John {tied/bound} the newspapers with strings.'
b. John-wa sinbun-o himo-de {musun-da/sibat-ta}.
John-Top newspaper-Acc string-with {tie-Past/bind-Past}
'John {tied/bound} the newspapers with strings.'
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I argue that the verbs *musubu* 'tie' and *sibaru* 'bind can have the two variants in (1) for different reasons. It is argued that the verb *sibaru* 'bind' has both change-of-location and change-of-state meanings, but that *musuu* 'tie' inherently has a change-of-location meaning, while lacking a change-of-state meaning. The facts can be accounted for if *sibaru* has the LSs in (2a) and (2b) as its inherent lexical meanings, while *musubu* has only the LS in (2a) as its intrinsic lexical meaning.

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(2) a. [DO (x, [do'(x, Ø)])] CAUSE [BECOME be-at'(y, z) & BECOME tightened'(z)]
b. [DO (x, [do'(x, Ø)] ∧ (x, [use'(x, z)])] CAUSE [BECOME tightened'(y)]
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I suggest that *musubu* cannot construct the material-object variant in (1b) on the basis of its intrinsic LS alone, but can have the form in (1b) via coercion.

I claim that coercion allows the verb *musubu* to have the additional LS in (2b), which is closely related to (2a). Support for this view may be obtained from the contrast in acceptability in (3), where the PP is missing for the theme-object variant.

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(3) John-wa sinbun-o {*musun-da/sibat-ta}.

John-Top newspaper-Acc {tie-Past/bind-Past}

'John {tied/bound} the newspapers.'
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(3) suggests that the theme-object variant in (1b) is made possible by adding a 'material' PP, by way of which the theme is forced to occur as an object. In this light, I propose that *musubu* can have the theme-object variant in (1b) if it comes to have the additional LS in (2b) via a lexical rule (Van Valin and LaPolla 1997). (A similar, but not the identical, case is found in English: *John hit the wall with the stick* vs. *John hit the stick* (*against the wall), where the instrument-object variant is made available only when the theme is expressed as a PP.)

The facts of compound verbs formed with a directional verb *tukeru* 'attach' and a completive verb *ageru* 'up' in (4) lend further support to the proposal.

- (4) a. John-wa sinbun-ni himo-o {musun-tuke-ta/sibat-tuke-ta}.

 John-Top newspaper-to string-Acc {tie-attach-Past/bind-attach-Past}

 'John {tied-attach/bound-attach} the newspapers with strings.'
 - b. John-wa sinbun-o himo-de {*musun-age-ta/sibari-age-ta}.

 John-Top newspaper-Acc string-with {tie-up-Past/bind-up-Past}

 'John {tied-up/bound-up} the newspapers with strings.'

The directional verb *tukeru* eliminates a change-of-location meaning from the main verb, and the completive verb *ageru*, a change-of-state meaning. The fact that (4b) is acceptable with the verb *sibaru* and not *musubu* suggests that *musubu* cannot construct (1b) due to the lack of (2b) as its intrinsic meaning, so it is necessary to appeal to coercion to construct (1b).

References:

Levin, Beth. 1993. *English Verb Classes and Alternations: A Preliminary Investigation*. Chicago: University of Chicago Press.

Pustejovsky, James. 1995. The Generative Lexicon. Cambridge, MA: MIT Press.

Van Valin, Robert D., Jr, and Randy J. LaPolla. 1997. *Syntax: Structure, Meaning and Function*. Cambridge: Cambridge University Press.