Affectedness Constraint as a Consequence of A-Movement Induced Thematic Hierarchy Reversal

**Introduction:** Affectedness Constraint (AC) refers to a constraint on interpretation of an argument in certain constructions that it must be ‘affected’ in some intuitive sense (Anderson 1976). In this study, we argue that AC is triggered by a reversal of a hierarchical relation between two Θ-roles, as defined in (1). In the “reversed” configuration, where the argument with the lower Θ-role dominates the assigner of the higher Θ-role, the argument with the lower Θ-role cannot be properly interpreted unless it is associated with ‘affectedness’, one of the prototypical features of internal arguments (Dowty 1991), which disambiguates the reversed thematic hierarchy. We motivate this analysis of AC based on an analysis of two Japanese passives, only one of which imposes AC, and argue that it also accounts for two more pairs of constructions whose members are also distinguished by presence/absence of AC: English get-passive and be-passive and English and Romance middle constructions.

**Japanese passives:** A Japanese passive sentence imposes AC on its subject when its by-phrase is marked with –ni (ni-passive) but not when it is marked with –niyotte (niyotte-passive) (Iinoe 1976, Kuroda 1979). Accounting for the link between the by-phrase marking and AC remains a challenge in analyzing Japanese passives. In this study, we argue that the missing link between the by-phrase marking and AC is presence/absence of an external Θ-role. We argue that ni-passive has an external Θ-role while niyotte-passive does not. Evidence for this claim comes from distribution of the two by-phantoms. The results of three grammaticality judgment experiments that we conducted show: (i) the niyotte-phrase can be licensed with intransitive verbs while the ni-phrase cannot (2a), (ii) the ni-phrase is significantly more acceptable than the niyotte-phrase with passive sentences with verbs that select experiencer (2b) and (iii) the ni-phrase is significantly more acceptable than niyotte-phrase with passive sentences with an agent-oriented adverb (2c). These results suggest that the niyotte-phrase thematically licenses its complement while the ni-phrase relies on another predicate to provide a Θ-role to its complement. Based on these findings, we propose that ni-passive has the structure in (3a), where the ni-phrase is licensed by an implicit external Θ-role, while niyotte-passive has the structure without an external Θ-role (3b), where the niyotte-phrase is licensed not by a Θ-role but by argument structure of the verb (i.e. Grimshaw 1990). We further argue that only ni-passive imposes AC on its subject because only ni-passive has two Θ-roles whose hierarchical relation is reversed (4a). In this ‘reversed’ configuration, the A-moved internal argument dominates the assigner of the external Θ-role, the passive v. In order for the A-moved argument to be properly interpreted as having the internal Θ-role, it must be associated with ‘affectedness’.

**Get-passive vs. Be-passive:** One of the differences between English get-passive and be-passive is that get-passive imposes AC on its subject while be-passive does not (Lakoff 1971, Lasnik and Fiengo 1974). Unlike the Japanese passives, however, the difference between the two English passives is unlikely to be due to presence/absence of an external Θ-role, given that they have the same by-phrase. Instead, we argue that what prevents be-passive from imposing AC on its subject is the v-to-T movement of be, which we analyze as the external Θ-role assigner. As can be seen in (5b), because of the v-to-T movement, the A-moved internal argument in [Spec, TP] does m-command be. Thus, be-passive does not impose AC. With get-passive, however, the external Θ-role assigner get remains in its base-generated position (Haegeman 1985). Thus, the A-moved internal argument in [Spec, TP] m-commands get, triggering AC (5a).

**Middle constructions:** English middle constructions are also known to involve AC (Keyser and Reoper 1984, Jaeggi 1986). Interestingly, however, middle constructions in Romance languages have been reported to lack AC (Cinque 1988 for Italian and Fellbaum and Zribi-Hertz 1989 for French). Under the proposed analysis of AC, this cross-linguistic difference in presence/absence of AC in middle constructions is due to another well-known cross-linguistic difference between English and Romance languages: lexical verbs rise to T only in Romance languages. Assuming that English middle constructions involve an implicit external Θ-role (i.e. Stroik 1999), the A-moved internal argument in [Spec, TP] m-commands the assigner of the external Θ-role v, triggering AC in English middle constructions (6a). In Romance middle constructions, however, the movement of the verb to T prevents the A-moved internal argument from m-commanding the assigner of an external Θ-role, v (6b). Thus, the proposed analysis correctly predicts that Romance middle constructions do not impose AC.
(1) Thematic Hierarchy Reversal (THR) obtains iff: (i) There are two Θ-roles α and β, (ii) α’s Θ-role assigner m-commands β’s Θ-role assigner at their base-generated positions, and (iii) The argument that receives β A-moves to a position where it m-commands α’s Θ-role assigner.

(2) Results of Three Experiments:

<table>
<thead>
<tr>
<th></th>
<th>ni-phrase</th>
<th>niyotte-phrase</th>
<th>Wilcoxon Test(one-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. with intransitive verbs</td>
<td>1.48</td>
<td>3.52</td>
<td>p = .000***</td>
</tr>
<tr>
<td>b. with experiencer verbs</td>
<td>3.33</td>
<td>2.78</td>
<td>p = .001**</td>
</tr>
<tr>
<td>c. with an agent-oriented adverb</td>
<td>2.92</td>
<td>2.5</td>
<td>p = .021*</td>
</tr>
</tbody>
</table>

(3) a. ni-passive:  

```
      [NP_{INT}] T
 |      v_{pass}P
 |      T
 PP  v_{pass}'
 NP_{EXT}-ni VP v_{PASS}[Theta_EXT]
 NP_{INT}-V[Theta_INT]
```

b. niyotte-passive:  

```
      [NP_{INT}] T
 |      v_{pass}P
 |      T
 PP  v_{pass}'
 NP_{EXT}-niyotte[Theta_ADJ] VP v_{PASS}[Theta_INT]
```

(4) a. get-passive:  

```
      [NP_{INT}] T'
 |      vP
 |      T
 NP_{INT}  v[Theta_EXT]
 VP
```

b. be-passive:  

```
      [NP_{INT}] T'
 |      vP
 |      T
 NP_{INT}  be[Theta_EXT]
 be[Theta_EXT]
 VP
```

(5) a. English middle:  

```
      [NP_{INT}] T'
 |      vP
 |      T
 NP_{INT}  v[Theta_EXT]
 VP
```

b. Romance middle:  

```
      [NP_{INT}] T'
 |      vP
 |      T
 NP_{INT}  v[Theta_EXT]_k+V
 VP
```