

## Affectedness in the Agent of SUBSTITUTE

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The verb SUBSTITUTE in *John substituted Bob in the second half* produces three interpretations: (a) *John* instigates the action by introducing a substitute player *Bob* to take the place of the existing one; (b) *Bob* is the replaced player; and (c) *John* is the substitute player to take the place of *Bob*. We propose that ‘Affectedness’ is the contributing factor that helps explain the differences.

We follow the distinction between ‘participant roles’ and ‘semantic roles’ by Van Valin & LaPolla (1997)—‘participant’ refers to the referent in the event without any relation with the predicate. So, both *John* and *Bob* own the capacity of using volition as a participant. As for ‘semantic roles’, they are the ‘relational properties’ between the predicate and its arguments. Thus, although both *John* and *Bob* possess volition, *Bob* needs not to exercise it because the semantic relation, ‘Patient’, does not require him to do so. We adopted Næss’ (2007: 40-42) relational properties in ‘Agent’ and ‘Patient’, and the definition of each property is in (1).

- (1) a. Volitionality (VOL): “The volitional involvement of a participant in an action”
- b. Instigation (INST): An act where one participant “does something to” another
- c. Affectedness (AFF): A patient “undergoes a change of state as a result of the event”

In addition to these features, we use ‘NP<sub>IN</sub>’ to represent the new entity which takes place of an old entity (‘NP<sub>OUT</sub>’). For methodology, we extracted corpus data from the BNC and elicited the finite SUBSTITUTE in the structure of [NP<sub>SUBJ</sub> + Verb + NP<sub>OBJECT</sub>]. The result showed that 65 hits were in the [NP<sub>AGENT</sub> + Verb + NP<sub>IN</sub>] (*you can substitute a lemon juice in the recipe*), 8 hits were in the [NP<sub>AGENT</sub> + Verb + NP<sub>OUT</sub>] (*the coach substituted the injured player*), and another 8 hits had the [NP<sub>IN</sub> + Verb + NP<sub>OUT</sub>] structure (*a substitute player substituted the injured player*). In all these [NP<sub>SUBJ</sub>+ Verb + NP<sub>OBJECT</sub>], the direct object preferred NP<sub>IN</sub>.

As for the semantic discrepancy of the subject NP, we analyzed the relational properties of the subject NP in the three structures respectively. For [NP<sub>AGENT</sub> + Verb + NP<sub>IN</sub>] in (2a), the subject NP (*hospital pharmacists*) instigates (+INST) the action of substituting with volition (+VOL) while not affected by the action (-AFF). We argue that this is the ‘Prototypical Agent’ of SUBSTITUTE. In contrast, (2b) represents [NP<sub>AGENT</sub> + Verb + NP<sub>OUT</sub>] where the manager *Ian Branfoot* instigates (+INST) the action of substituting with his volition (+VOL) by removing the NP<sub>OUT</sub> (*Terry Hurlock*) in the game, and remains unaffected (-AFF).

- (2) [+VOL, +INST, -AFF]: ‘Prototypical Agent’

- a. [AGENT *Hospital pharmacists*] can **substitute** [IN *a non-brand equivalent*] to save money, but ordinary pharmacies have to give exactly what the doctor orders. (G35-673)
- b. [AGENT *SOUTHAMPTON manager Ian Branfoot*] **substituted** [OUT *hardman Terry Hurlock*] to save him from the red card. (CEP-10994)

In contrast, [NP<sub>IN</sub> + Verb + NP<sub>OUT</sub>] is distinct from the previous two. The major difference, we argue, comes from the property of affectedness in the subject NP.

(3) a. [-VOL, +INST, +AFF]: ‘Instrument’

*Not very, despite the fact that* [IN *gas*] *can substitute* [OUT *50–80% of diesel oil*].

b. [+VOL, +INST, +AFF]: ‘Affected Agent’

*Okay, so we accept that* [IN *Councillor Tiffany*] *is now substituting* [OUT *Councillor Kurtz*] *and may now take her full part in the meeting.* (KS1-173)

In (3a), the inanimate subject *gas* is non-volitional (-VOL), and it instigates (+INST) the action of substituting to take the place of the NP<sub>OUT</sub>. Since the non-volitional *gas* cannot instigate the action by itself, it needs a human ‘Agent’ to use the *gas* as an ‘Instrument’. The *gas* is affected (+AFF) due to the application by the human ‘Agent’ and its change of state from ‘Null’ to ‘In’. In contrast, in (3b), the subject *Councillor Tiffany* is a volitional human (+VOL) instigating (+INST) the action and being affected (+AFF) due to its change of state like *gas* in (3a).

However, we question whether *Councillor Tiffany* necessarily exercises her volition. While a human agent is needed for the non-volitional *gas* to instigate the action, *Councillor Tiffany* possesses volition but not necessarily using it. Possibly, a ‘Prototypical Agent’ (e.g. a boss) assigned *Councillor Tiffany* to substitute the NP<sub>OUT</sub>. Although *Councillor Tiffany* may reserve some volition to instigate the action, the volition is not autonomous. Therefore, we suggest that the ‘Affected Agent’ may be less agentive than the ‘Prototypical Agent’ due to the decreased volition.

In addition, using the Corpus of Contemporary Taiwanese Mandarin (COCT), we observed the possible counterpart of SUBSTITUTE in Mandarin, *ti4huan4* (替換). It is demonstrated that the ‘Affected Agent’ of *ti4huan4* could be less agentive than that of the ‘Prototypical Agent’. In (4a), the ‘Prototypical Agent’ (他) is not affected by the action (-AFF), while in (4b) 老媽媽 is the ‘Affected Agent’ in that it takes the place of the NP<sub>OUT</sub> (他). Obviously, the ‘Affected Agent’ (老媽媽) does not instigate the action fully by its own volition but by that of 都城大王, and thus the ‘Affected Agent’ is less agentive in this regard.

(4) a. [AGENT 他] 必須 替換 [OUT 前線 疲憊不堪 的 士兵]。  
*ta bi-xu ti-huan qian-xian pi-bei-bu-kan de shi-bing*  
 3sg must substitute frontline weary DE soldiers

Intended: He must substitute the weary soldiers of the frontline.

b. 都城 大王 來 請 [IN 老媽媽] 替換 [OUT 他] 去 做 王。  
*dou-cheng da-wang lai qing lao-ma-mati-huan ta qu zuo wang*  
 capital king come ask old-mama substitute 3sg go do king

## References

- Næss, Å. (2007). *Prototypical transitivity* (Vol. 72). John Benjamins Publishing.
- Van Valin, R. D., Jr. & LaPolla, R. J. (1997). *Syntax: Structure, meaning, and function*. Cambridge University Press.