## On the Semantics of Translative Case in Finnish

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In Finnish, translative case is strongly associated with the notion of change (cf. e.g. Fong 2003, Matushansky 2008 and references therein). It is assigned to predicative complements of such verbs as *tulla* 'become' and *muuttua* 'change', 'turn (into)' (1) and to adjectival and nominal resultative phrases.

(1) Toini	tul-i sai	iraa-ksi.	
Toini.n	become-past.3s	ill-tra	'Toini became ill.'

However, as pointed out by Fong (2003), the view that translative case entails change is challenged by its appearance on complements of such verbs as *jäädä* 'remain' and *jättää* 'leave':

(2) Matti jä-i	vanha-ksi-poja-ksi.	
Matti.nremain-past.3s	old-tra-boy-tra	'Matti remained a bachelor.'

Thus, (2) does not entail a change. On the opposite, Matti is entailed to remain in the same state which held of him originally. However, it is associated with an expectation that Matti would get married, which ultimately remains unfulfilled. Fong demonstrates that in this respect the translative-taking *jäädä* differs from the essive-taking *pysyä* 'remain'. Thus, if *jäi* in (2) is substituted by *pysyi*, the sentence no longer implies that Matti desired / was expected to get married, and the predicate must appear in essive case.

I propose that translative case-marking is sensitive not to the notion of change per se but rather to an inherent component of change: energy being exerted for the purposes of the P-state to hold. I follow Talmy's (2000) insight that the semantics of such verbs as *stay*, *keep* and *remain* (unlike *be*) involves **force dynamics**. (Copley and Harley (2015) informally define force as "an input of energy that arises from the objects and properties in a situation.") Roughly, with such verbs, force is entailed to be exerted in order for the situation to remain unchanged. To illustrate, *The ball kept (on) rolling along the green* (Talmy 2000:412) is compatible with a situation whereby the ball has a tendency to remain in place, but the tendency is overcome by an external force acting on it. Analogously, I propose, the use of *jäädä* in (2) suggests that Matti has a tendency / desire to get married, but other circumstances (for instance, girls saying "No") force him to remain in the bachelor state. In contrast, *pysyä* is purely stative. It implies no force or dynamics and is used merely to assert that no change of state took place.

I propose that translative marking signals that force is exerted in order for the P-situation to hold (i.e. in order for the argument to have the property denoted by the translative predicate). The prototypical case is one whereby originally, the argument lacks the property P and force is exerted in order for it to come to have the property. In other words, a change from not P to P takes place. Further, another type of situations is compatible with the necessary configuration: ones in which force is exerted in order for the argument to remain in the state in question and **not** to undergo a change. This happens when there is a tendency for a change, and then force / energy exertion is needed in order to overcome this tendency. Such a situation is signaled by *jäädä*, and this is why this verb is accompanied by a translative complement.

Formally, I follow Copley and Harley (2015), who formalize the concept of force dynamics in a generative linguistic account. Forces are represented as functions from situations to situations, type  $\langle s, s \rangle$ . The input is the original situation s and the output, a (potentially different) situation s' which is brought about by the exertion of **the net force** of s (the force that arises from all the individuals and properties in s.) I propose that the condition under which translative case is assigned to a predicate is essentially the same as the semantic meaning component contributed by both BECOME v° head (contributed by change of state predicates) and the "dynamic stative" *keep* according to Copley and Harley (3). BECOME further presupposes that the initial situation *init(f)* was not a p situation, whereas *keep*, on the opposite, presupposes that it was a p situation. Translative case, I propose, is indeterminate in this respect:

(3)  $\lambda p \lambda f.p(fin(f))$  where f is a force, fin(f) is the final situation of f (one that is rendered after f takes the situation of which it is a force as its argument) and p is a predicate of situations, type <s,t> (an analogue of an event predicate within event semantics.)

Roughly, the predicate p is asserted to hold of the situation which results from the exertion of the force f. The semantics of the two 'remain' verbs is provided below (the presupposed part is underlined). *pysyä* entails that a p-situation holds and presupposes that a p-situation held immediately before the asserted state of affairs.

- (4)  $[[j\ddot{a}\ddot{a}d\ddot{a}]] = \lambda p \lambda f. p(fin(f)) \underline{\& p(init(f))}$
- (5)  $[[pysyä]] = \lambda p \lambda s. p(s) \& \exists s'[p(s') \& \tau(s') < \tau(s) \& \neg \exists s''[\neg p(s'') \& \tau(s') < \tau(s'') < \tau(s)]]$